

2

“Thou Shall Not Freeze-Frame” or How Not to Misunderstand the Science and Religion Debate

Bruno Latour

I have no authority whatsoever to talk to you¹ about religion and experience because I am neither a predicator, nor a theologian, nor a philosopher of religion—nor even an especially pious person. Fortunately, religion might not be about authority and strength, but exploration, hesitation, and weakness. If so, then I should begin by putting myself in a position of most extreme weakness. William James, at the end of his masterpiece, *Varieties of Religious Experience*,² says his form of pragmatism possesses a “crass” label, that of pluralism. I should better state at the beginning of this talk that my label—should I say my stigma?—is even crasser: I have been raised a Catholic; and worse, I cannot even speak to my children of what I am doing at church on Sunday. It is from this very impossibility of speaking to my friends and to my own kin about a religion that matters to me, that I want to start tonight: I want to begin this lecture by this hesitation, this weakness, this stuttering, by this speech impairment. Religion, in my tradition, in my corner of the world, has become impossible to enunciate.³

But I don't think I could be allowed to talk only from such a weakened and negative position. I have also a slightly firmer ground that gives me some encouragement in addressing this most difficult topic. If I have dared answering the invitation to speak, it is also because I have been working for many years on offering other interpretations of scientific practice than common ones.⁴ It is clear that in an argument on “science and religion,” any change, however

slight, however disputed, in the way science is considered, will have some consequences on the many ways to talk about religion. Truth production in science, religion, law, politics, technology, economics, and so on is what I have been studying over the years in my program to advance toward an anthropology of the modern (or rather nonmodern) world. Systematic comparisons of what I call “regimes of enunciation” is what I am after, and if there is any technical argument in what follows, it is this rather idiosyncratic comparative anthropology from which they will come. In a sort of weak analogy with speech-act theory, I’ve devoted myself to mapping out the “conditions of felicity” of the various activities that, in our cultures, are able to elicit truth.

I have to note at the beginning, that I am not trying to make a critique of religion. That truth is in question in science, as well as in religion, is not for me in question. Contrary to what some of you who might know my work on science (most probably by hearsay) could be led to believe, I am interested mainly in the practical conditions of truth-telling and *not* in debunking religion after having, so it is said, disputed the claims of science. If it was already necessary to take science seriously without giving it some sort of “social explanation,” such a stand is even more necessary for religion: debunkers simply would miss the point. Rather, my problem is how to become attuned to the right conditions of felicity of those different types of truth-generators.

And now to work. I don’t think it is possible to speak of religion without making clear the form of speech that is adjusted to its type of predication. Religion, at least in the tradition I am going to talk from, namely the Christian one, is a way of preaching, of predicating, of enunciating truth in a certain manner—this is why I have to mimic in writing the situation of an oration given from the pulpit. It is literally, technically, theologically, a form of news, of “good news,” what in Greek was called *evangelios*, what has been translated into English as “gospel.” Thus, I am not going to speak of religion in general, as if there existed some universal domain, topic, or problem called “religion” that could allow one to compare divinities, rituals, and beliefs from Papua New Guinea to Mecca, from Easter Island to Vatican City. A person of faith has only one religion, as a child has only one mother. There is no point of view from which one could compare different religions and *still* be talking in the religious fashion. As you see, my purpose is not to talk *about* religion, but to talk to you *religiously*, at least religiously enough so that we can begin to analyze the conditions of felicity of such a speech act, by demonstrating in vivo, tonight, in this room what sort of truth-condition this speech-act requests. Since the topic of this series implies “experience,” experience is what I want to generate.

Talking of Religion, Talking from Religion

What I am going to argue is that religion—again in the tradition which is mine—does not speak *of* things, but *from* things, entities, agencies, situations, substances, relations, experiences, whatever is the word, which are highly sensitive to the ways in which they are talked about. They are, so to speak, manners of speech—John would say Word, Logos, or *Verbum*. Either they transport the spirit from which they talk and they can be said to be truthful, faithful, proven, experienced, self-verifiable, or they don't reproduce, don't perform, don't transport what they talk from, and immediately, without any inertia, they begin to lie, to fall apart, to stop having any reference, any ground. Either they elicit the spirit they utter and they are true; or they don't and they are worse than false, they are simply irrelevant, parasitical.

There is nothing extravagant, spiritual, or mysterious in beginning to describe religious talk in this way. We are used to other, perfectly mundane forms of speech that are evaluated not by their correspondence with any state of affairs either, but by the quality of the interaction they generate from the way they are uttered. This experience—and experience is what we wish to share—is common in the domain of “love-talk” and, more largely, personal relations. “Do you love me?” is not assessed by the originality of the sentence—none are more banal, trivial, boring, rehashed—but rather by the *transformation* it manifests in the listener, as well as in the speaker. *Information* talk is one thing, *transformation* talk is another. When the latter is uttered, something happens. A slight displacement in the normal pace of things. A tiny shift in the passage of time. You have to decide, to get involved: maybe to commit yourselves irreversibly. We are not only undergoing an experience among others, but a change in the pulse and tempo of experience: *kairos* is the word the Greeks would have used to designate this new sense of urgency.

Before going back to religious talk, in order to displace our usual ways of framing it, I wish to extract two features from the experience we all have—I hope—in uttering or listening to love-carrying sentences.

The first one is that such sentences are not judged by their *content*, their number of bytes, but by their performative abilities. They are mainly evaluated by only this question: do they produce the thing they talk about, namely *lovers*? (I am not so much interested here in love as “eros,” which often requires little talk, but in love as “agapè,” to use the traditional distinction.) In love injunction, attention is redirected not to the content of the message, but to the container itself, the person-making. One does not attempt to decrypt it as if it transported a message, but as if it transformed the messengers themselves. And yet, it would be wrong to say that they have no truth-value simply because they possess no informational content. On the contrary, although one could not tick p's and q's to calculate the truth table of those statements, it is a very important

matter—one to which we devote many nights and days—to decide whether they are truthful, faithful, deceitful, superficial, or simply obscure and vague. All the more so, because such injunctions are in no way limited to the medium of speech: smiles, sighs, silences, hugs, gestures, gaze, postures, everything can relay the argument—yes, it is an argument and a tightly knit one at that. But it is an odd argument that is largely judged by the *tone* with which it is uttered, its tonality. Love is made of syllogisms whose premises are persons. Are we not ready to give an arm and a leg to be able to detect truth from falsity in this strange talk that transports persons and not information? If there is one involvement in truth-detection, in trust-building that everyone shares, it is certainly this ability to detect right from wrong love talk. So, one of the conditions of felicity we can readily recognize is that there exist forms of speech—and again it is not just language—that are able to transfer *persons* not information, either because they produce in part personhood, or because new states, “new beginnings,” as William James would say, are generated in the persons thus addressed.

The second feature I wish to retain from the specific—and totally banal—performance of love talk is that it seems to be able to shift the way space is inhabited and time flows. Here, again, the experience is so widespread that we might overlook its decisive originality. Although it is so common, it is not often described, except in a few movies by Ingmar Bergman, or in some odd novels, because eros, Hollywood eros, usually occupies the stage so noisily that the subtle dynamic of agapè is rarely noticed. But we can share, I think, enough of the same experience to capitalize on it later for my analysis: what happens to you, would you say, when you are thus addressed by love-talk? Very simply put: you were *far*, you are now *closer*—and lovers seem to have a treasure of private lore to account for the subtle reasons of those shifts from distance to proximity. This radical change concerns not only space, but also time: you just had the feeling of inflexible and fateful destiny, as if a flow from the past to the ever-diminishing present was taking you straight to inertia, boringness, maybe death; and suddenly, a word, an attitude, a query, a posture, un je ne sais quoi, and time flows again, as if it were starting from the present and had the capacity to open the future and reinterpret the past: possibility arises, fate is overcome, you breathe, you feel enabled, you hope, you move. In the same way as the word “close” captured the different ways space is now inhabited, it is the word “present” that now seems the best way to capture what happens to you: you are present again and anew to one another. And, of course, you might become absent and far again in a moment—this is why your heart beats so fast, why you are at once so thrilled and so anxious: a word badly uttered, a clumsy gesture, a wrong move and, instantly, the terrible feeling of estrangement and distance, this dependency that comes from the fateful passage of time, all of that boredom falls over you again, intolerable, deadly. You suddenly

don't understand what you are doing with one another: unbearable, simply unbearable.

Have I not sketched a very common experience, the one acquired in the love crisis, on both sides of this infinitely small difference between what is close and present and what is far and absent? This difference that is marked so vividly by a nuance, sharp as a knife, both subtle and sturdy: a difference between talking rightly and talking wrongly about what make us alive to the presence of one another?

If we now take together the two features of love-addressing I have just outlined, we may convince ourselves that there exists a form of speech that (a) is concerned by the transformation of messengers instead of the transport of information, and (b) is so sensitive to the tone in which it is uttered that it can abruptly shift, through a decisive crisis, from distance to proximity—and back to estrangement—and from absence to distance and, alas, back again. Of this form of talk, I will say that it “re-presents” in one of the many literal meanings of the word: it presents anew what it is to be present in what one says. And (c) this form of talk is at once completely common, extremely complex, and not that frequently described in detail.

How to Redirect Attention?

Such is the atmosphere I want to benefit from, in order to start again my predication—since to talk, nay, to preach religion is what I want to attempt, so as to obtain enough common experience that it can be analyzed afterwards. I want to use the template of love-addressing so as to rehabilitate ourselves to a form of religious talk which has been lost, unable to represent itself again, to repeat itself because of the shift from religion to belief; more on this later. We now know that the competence we are looking for is common, that it is subtle, that it is not very much described, that it easily appears and disappears, tells the truth and then gives the lie. The conditions of felicity of my own talk are thus clearly outlined: I will fail if I cannot produce, perform, educe what it is about. Either I am able to re-present it to you again, that is to present it in its renewed and olden presence, and I speak in truth; or I don't, and although I might have pronounced the same words, it is in vain that I speak, I have lied to you, I am nothing but an empty drum that beats in the void.

Three words are important, then, in respect to my risky contract with you: “close,” “present,” and “transformation.” To give me some chance to succeed in re-enacting the right way to say religious things—in the Word tradition I have been raised in—I need to redirect your attention away from topics and domains thought to pertain to religion, but which might render you indifferent or hostile to my way of talking. We have to resist two temptations in order for

my argument to stand a chance of representing anything—and thus to be truthful. The first temptation would be to abandon the transformation necessary for this speech-act to function; the second would be to direct our attention to the far away instead of the close and present.

To put it simply, but I hope not too provocatively: if, when hearing about religion, you direct your attention to the far away, the above, the supernatural, the infinite, the distant, the transcendent, the mysterious, the misty, the sublime, the eternal, chances are that you have not even begun to be sensitive to what religious talk tries to involve you in. Remember, I am using the template of love-addressing, to speak of different sentences with the same spirit, the same regime of enunciation. In the same way as those love-sentences should transform the listeners in being close and present or else are void, the ways of talking religion should bring the listener, and also the speaker, to the same closeness and to the same renewed sense of presence—or else they are worse than meaningless. If you are attracted to the distant, by religious matters, to the far away, the mysteriously encrypted, then you are *gone*, you are literally not *with me*, you remain absentminded. You make a lie of what I am giving you a chance to hear again tonight. Do you understand what I am saying? The way I am saying it? The Word tradition I am setting into motion again?

The first attempt at redirecting your attention is to make you aware of the pitfall of what I will call “double-click communication.” If you use such a benchmark to evaluate the quality of religious talk, it will become exactly as meaningless, empty, boring, and repetitive as misaddressed love-talk, and for the same reason: because they carry no messages, but rather a transport and transform the messengers themselves, or fail. And yet, such is exactly the yardstick of double-click communication: it wants us to believe that it is feasible to transport without any deformation whatsoever of some accurate information about states of affairs which are not presently here. In most ordinary cases, what people have in mind when they ask “Is this true?” or “Does this correspond to a state of affairs?” is just such a double-click gesture allowing immediate access to information: tough luck, because this is also what gives the lie to ways of talking that are dearest to our heart. On the contrary, to disappoint the drive toward double-click, to divert it, to break it, to subvert it, to render it impossible, is just what religious talk is after. Speakers of religious talk want to make sure that even the most absentminded, the most distant gazers, are brought back to attention so that they don’t waste their time ignoring the call to conversion. To disappoint, first, to disappoint. “What has this generation in requesting a sign? No sign will be given to them!”

Transport of information without deformation is not, *no* it is not one of religious talk’s conditions of felicity. When the Virgin hears the angel Gabriel’s salutation, she is so utterly transformed, says the venerable story, that she becomes pregnant with the Savior, rendered through her agency present again to the world. Surely this is not a case of double-click communication! On the

other hand, asking “who was Mary?” checking whether or not she was “really” a Virgin, imagining some pathway to impregnate her with spermatic rays, deciding whether Gabriel is male or female, *these* are double-click questions. They want you to abandon the present time and to direct your attention away from the meaning of the venerable story. These questions are not impious, nor even irrational, they are simply a category mistake. They are so irrelevant that no one has even to bother answering them. Not because they lead to unfathomable mysteries, but because their idiocy makes them generate uninteresting and utterly useless mysteries. They should be broken, interrupted, voided, ridiculed—and I will show later how this interruption has been systematically attempted in one of the Western Christian iconographic traditions. The only way to understand stories such as that of the Annunciation is to *repeat* them, that is to utter again a Word which produces into the listener the same *effect*, which impregnates *you*, because it is you I am saluting, I am hailing tonight, with the same gift, the same present of renewed presence. Tonight, I am your Gabriel! Or else you don’t understand a word of what I am saying—and I am a fraud.

Not an easy task—I will fail, I know, I am bound to fail, I speak against all odds—but my point is different because it is a little more analytical: I want you to realize through which sort of category mistake belief in belief is being generated. Either I repeat the first story because I retell it in the same efficient mode in which it was first told, or I hook up a stupid referential question to a messenger-transfer one and I do more than a crass stupidity: I make the venerable story lie because I have distorted it beyond recognition. Paradoxically, by formatting questions in the procrustean bed of information transfer so as to get at “exactly” what it meant, I would have *deformed* it, transmogrified it into an absurd belief, the sort of belief that weighs religion down and lets it slide toward the refuse heap of past obscurantism. The truth-value of those stories depends on us tonight, exactly as the whole history of two lovers depends on their ability to re-enact the injunction to love again in the minute they are reaching for one another in the darker moment of their estrangement: if they fail (present tense), it was in vain (past tense), that they have lived so long together.

Note that I did not speak of those sentences as being either irrational or unreasonable, as if religion had somehow to be protected against an irrelevant extension of rationality. When Ludwig Wittgenstein writes: “I want to say ‘they don’t treat this as a matter of reasonability.’ Anyone who reads the Epistles will find it said: not only that it is not reasonable, but that it is a folly. Not only it is not reasonable, but it doesn’t pretend to be,”⁵ he seems to deeply misunderstand what sort of folly the Gospel is writing about. Far from not pretending to be reasonable, it simply applies the same *common* reasoning to a *different* kind of situation: it does not try to reach a distant state of affairs, but bring the locutors closer to what they say of one another. To suppose that, in addition to

rational knowledge of what is graspable, there exists also some sort of nonreasonable and respectable belief of things too far away to be graspable, seems to me a very condescending form of tolerance. I'd rather like to say that rationality is never in excess, that science knows no boundary, and that there is absolutely nothing mysterious, or even unreasonable in religious talk—except the artificial mysteries generated, as I just said, by asking the wrong questions, in the wrong mode, in the wrong *key*, to perfectly reasonable person-making arguments. To seize something by talk, or to be seized by someone else's talk might be different, but the same basic mental, moral, psychological, and cognitive equipment is necessary for both.

More precisely we should differentiate two forms of mystery: one that refers to the common, complex, subtle ways in which one has to pronounce love-talk for it to be efficacious—and it is indeed a mystery of ability, a knack, like good tennis, good poetry, good philosophy, maybe a sort of “folly”—and another mystery, totally artificial, that is caused by the undue short-circuit of two different regimes of enunciation colliding with one another. The confusion between the two mysteries is what makes the voice of people quiver when they talk of religion, either because they wish to have no mystery at all—good, there is none anyway!—or because they believe they are looking at some encrypted message they have to decode through the use of some special and esoteric grid only initiates know how to use. But there is nothing hidden, nothing encrypted, nothing esoteric, nothing odd in religious talk: it is simply difficult to enact, it is simply a little bit subtle, it needs exercise, it requires great care, it might save those who utter it. To confuse talk that transforms messengers with talk that transports messages—cryptic or not—is not a proof of rationality, it is simply an idiocy doubled by an impiety. It is as idiotic as if a lover, asked to repeat whether she loves her partner or not, simply pushed the “play” button of a tape recorder to prove that five years ago she had indeed said “I love you, darling.” It might prove something, but certainly *not* that she has renewed her pledge to love presently—it is a valid proof, to be sure, a proof that she is an absentminded and probably lunatic woman.

Enough for double-click communication. The two other features—closeness and presence—are much more important for our purpose, because they will lead us to the third term of our lecture series, namely “science.” It is amazing that most speakers, when they want to show generosity toward religion, have to couch it in terms of its necessary irrationality. I sort of prefer those who, like Pascal Boyer, frankly want to explain—to explain away—religion altogether, by highlighting the brain loci and the survival value of some of its most barbarous oddities.⁶ I always feel more at home with purely naturalistic accounts than with this sort of hypocritical tolerance that ghettoizes religion into a form of nonsense specialized in transcendence and “feel good” inner sentiment. Alfred North Whitehead had put an end, in my views, to those who wish religion to “embellish the soul” with pretty furniture.⁷ Religion,

in the tradition I want to render present again, has nothing to do with subjectivity, nor with transcendence, nor with irrationality, and the last thing it needs is tolerance from open-minded and charitable intellectuals who want to add to the true but dry facts of science, the deep and charming “supplement of soul” provided by quaint religious feelings.

Here, I am afraid I have to disagree with most, if not all, of the former speakers on the science-religion confrontation because they are talking like Camp David diplomats drawing lines with a felt pen over some maps of the Israel/Palestine territories. They all try to settle disputes as if there was one single domain, one single kingdom to share in two, or, following the terrifying similarity with the Holy Land, as if two “equally valid claims” had to be established side by side, one for the natural, the other for the supernatural. And some speakers, like the most extremist zealots of Jerusalem and Ramallah—the parallel is uncanny—rejecting the efforts of diplomats, want to claim the whole land for themselves, either by driving the obscurantist religious folks to the other side of the Jordan River or, conversely, by drowning the naturalists in the Mediterranean Sea. I find those disputes—whether there is one or two domains, whether it is hegemonic or parallel, whether polemical or peaceful—equally moot for a reason that strikes at the heart of the matter: they all suppose that science and religion have similar but divergent claims to reach and settle a territory, either of this world, or of this other world. I believe, on the contrary, that there is no point of contact between the two, no more, let’s say than nightingales and frogs have to enter into any sort of direct ecological competition.

I am not saying that science and religion are incommensurable because one grasps the objective visible world of here and there, and the other grasps the invisible subjective or transcendent world of beyond, but rather that even their incommensurability would be a category mistake. The reason is that neither science nor religion fits even this basic picture that would put them face-to-face, or enough in relation to be deemed incommensurable! Neither religion nor science are much interested in the visible: it is science that grasps the far and the distant; as to religion, it does not even try to *grasp* anything.

Science and Religion: A Comedy of Errors

My point might appear at first counterintuitive because I wish to draw simultaneously on what I have learned from science studies about scientific practice and what I hope you have experienced here in reframing religious talk with the help of a love argument. Religion does not even try, if you have followed me until now, to reach anything beyond, but to represent the presence of that which is called in a certain technical and ritual idiom the “Word incarnate”—that is to say again that it is here, alive, and not dead over there far away. It

does not try to designate something, but to speak from a new state that it generates by its ways of talking, its manner of speech. Religion, in this tradition, does everything to constantly redirect attention by systematically breaking the will to go away, to ignore, to be indifferent, blasé, bored. Conversely, science has nothing to do with the visible, the direct, the immediate, the tangible, the lived world of common sense, of sturdy “matters of fact.” Quite the opposite, as I have shown many times, it builds extraordinarily long, complicated, mediated, indirect, sophisticated paths so as to reach the worlds—like William James I insist on the plural—that are invisible because they are too small, too far, too powerful, too big, too odd, too surprising, too counterintuitive, through concatenations of layered instruments, calculations, models. Only through the laboratory and instrument networks can you obtain those long referential chains that allow you to maximize the two contrary features of mobility (or transport) and immutability (or constant) that both make up information—what I have called for this reason “immutable mobiles.”

And notice here that science in action, science as it is done practically, is even further from double-click communication than religion: distortion, transformation, recoding, modeling, translating, all of these radical mediations are necessary to produce reliable and accurate information. If science was information *without* transformation, as good common sense would like to have it, we would still be in complete obscurity about states of affairs distant from here and now. Double-click communication does even less justice to the transformation of information in scientific networks than to the strange ability of some speech-acts to transform the locutors in religion.

What a comedy of errors! When the debate between science and religion is staged, adjectives are almost exactly reversed: it is of science that one should say that it reaches the invisible world of beyond, that she is spiritual, miraculous, soul-fulfilling, uplifting.⁸ And it is religion that should be qualified as being local, objective, visible, mundane, unmiraculous, repetitive, obstinate, sturdy.

In the traditional fable of a race between the scientific rabbit and the religious tortoise, two things are totally unrealistic: the rabbit *and* the tortoise. Religion does not even attempt to race to know the beyond, but attempts at breaking all habits of thoughts that direct our attention to the far away, to the absent, to the overworld, in order to bring attention back to the incarnate, to the renewed presence of what was before misunderstood, distorted and deadly, of what is said to be “what was, what is, what shall be,” toward those words that carry salvation. Science does not *directly* grasp anything accurately, but slowly gains its accuracy, its validity, its truth-condition by the long, risky, and painful detour through the mediations of experiments not experience, laboratories not common sense, theories not visibility, and if she is able to obtain truth it is at the price of mind-boggling transformations from one media into

the next. Thus, to even assemble a stage where the deep and serious problem of “the relationship between science and religion” could unfold is already an imposture, not to say a farce that distorts science and religion, religion and science beyond all recognition.

The only protagonist who would dream of the silly idea of staging a race between the rabbit and the tortoise, to put them face-to-face so as to decide afterward who dominates whom—or to invent even more bizarre diplomatic settlements between the two characters—the only Barnum for such a circus, is double-click communication. Only he, with this bizarre idea of transportation *without* transformation to reach a far away state of affairs, could dream of such a confrontation, distorting the careful practice of science, as well as the careful repetition of religious, person-giving talk. Only he can make both science and religion incomprehensible, first by distorting the mediated and indirect access of science to the invisible world through the hard labor of scientists, into a direct, plain, and unproblematic grasp of the visible; and then, in giving the lie to religion by forcing her to abandon her goal of representing anew what it is about and making all of us gaze, absentmindedly toward the invisible world of beyond which she has no equipment nor competence nor authority nor ability to reach—even less to grasp. Yes, what a comedy of errors, a sad comedy, one that has made it almost impossible to embrace rationalism, because it would mean to ignore the workings of science even more than the goals of religion.

Two Different Ways of Linking Statements to One Another

Those two regimes of invisibility, which have been so distorted by the appeal to the dream of instant and unmediated communication, might be made more demonstrative by appealing to visual documents. My idea, as I hope it is now clear, is to move the listener from one opposition between science and religion, to another one between two types of objectivities. The first traditional fight has pitted science, defined as the grasp of the visible, the near, the close, the impersonal, the knowable, against religion, which is supposed to deal with the far, the vague, the mysterious, the personal, the uncertain, and the unknowable.

To this opposition, which is, in my view, an artifact, I want to substitute another opposition between, on the one hand, the long and mediated referential chains of science that lead to the distant and the absent, and, on the other, the search for the representation of the close and present in religion. As I have shown elsewhere, science is in no way a form of speech-act that tries to bridge the abyss between words and *the* world—in the singular. That would be amounting to the *salto mortale* so ridiculed by James; rather, science as it is practiced, attempts to “deambulate”—James’ expression again—from one in-

scription to the next by taking each of them in turn for the matter out of which it extracts a form. “Form” here has to be meant very literally, very materially: it is the paper in which you place the “matter” of the stage just preceding.

Because an example is always better to render visible the invisible path that science traces through the pluriverse, let’s take the case of Jean R’s laboratory in Paris, where they try to gain information on the releasing factors of a single isolated neuron. Obviously, there is no unmediated, direct, unartificial way to render one neuron visible out of the billions that make up the brain’s gray matter. So they have to begin with rats, which are first guillotined. Then the brain is extracted, then cut (thanks to a microtome) in very fine slices. Then each slice is prepared in such a way that it remains alive for a couple of hours, then put under a powerful microscope. And then, on the screen of the television, a microsyringe and a microelectrode are delicately inserted into one of the neurons on which the microscope is able to focus among the millions that are simultaneously firing—and this may fail because focusing on one neuron and bringing the microsyringe in contact with the same neuron to capture the neurotransmitters while recording the electric activity is a feat few people are able to achieve. Then the activity is recorded, the chemical products triggered by the activity are gathered through the pipette, and the result is written into an article that presents synoptically the various inscriptions. I don’t want to say anything about neuron firing—no matter how interesting—but to attract your attention to the movement, the jump from one inscription to the next.

It is clear that without the artificiality of the laboratory, none of this path through inscriptions, where each plays the role of matter for the next that put it into a new form, would produce a *visible* phenomenon. Reference is not the gesture of a locutor pointing with a finger to a cat purring on a mat, but a much riskier affair and much dirtier business, which connects a published literature—outside the lab, to published literature—from the lab, through many intermediations, one of them, of course, being the rats, those unsung heroes of much biology.

The point I want to make is that these referential chains have very interesting contradictory features: they are producing our best source of objectivity and certainty, yet they are artificial, indirect, multilayered. There is no doubt that the reference is accurate, yet this accuracy is not obtained by any two things mimetically resembling one another, but, on the contrary, through the whole chains of artificial and highly skilled *transformations*. As long as the chain obtains these transformations, the truth-value of the whole reference is calculable. But if you isolate one inscription, if you extract one image, if you freeze-frame the continuous path of transformations, then the quality of the reference immediately deteriorates. Isolated, a scientific image has no truth-value, although it might trigger, in the mythical philosophy of science that is being used by most people, a sort of shadow referent that will be taken, by a sort of optical

illusion, to be the model of the copy—although it is nothing but the virtual image of an isolated “copy”!

This proves, by the way, that matters of fact, those famous matters of fact that are supposed by some philosophers to be the stuff out of which the visible commonsense world is made, are actually nothing but a misunderstanding of the artificial but productive process of scientific objectivity, which has been derailed by freeze-framing a referential path. There is nothing primitive or primeval in matters of fact; they are not the ground of mere perceptions.⁹ It is thus entirely misleading to try to *add* to the objective matters of fact some sort of subjective state of affairs that, in addition, would occupy the mind of the believers.

Although some of what I said here, much too briefly, might still be controversial, I need to have it taken as an undisputed background because I want to use it to shed a new light on the religious regime of invisibility. In the same way that there is a misunderstanding on the path traced by the deambulation of scientific mediations, there is, I think, a common misunderstanding on the path traced by religious images.¹⁰ The traditional defense of religious icons in Christianity has been to say that the image is not the object of a “latry” (as in *idolatry*), but of a *duly*, a Greek term that says a worshipper, at the occasion of the copy—whether it be a Virgin, a crucifix, or the statue of a saint—has turned his or her mind to the prototype, the only original worth adoring. This is, however a weak defense that never convinced the Platonist, the Byzantine, the Lutheran or the Calvinist iconoclasts—not to mention Mullah Omar when he had the Bāmiān Buddhas put to the gun.

In effect, the Christian regime of invisibility is as different from this traditional meek defense, as the scientific reference path is from the glorified matters of fact. What imageries have tried to achieve through countless feats of art is exactly the opposite of turning the spectator’s eyes to the model far away: on the contrary, incredible pain has been taken to *break* the habitual gaze of the viewer so as to attract his or her attention to the *present* state, the only one which can be said to offer salvation. Everything happens as if painters, carvers, patrons of the works of art had tried to break the images inside so as to render them unfit for normal informative consumption; as if they wanted to begin, to rehearse, to start a rhythm, a movement of conversion that is understood only when the viewer—the pious viewer—takes upon herself to repeat the same tune in the same rhythm and tempo. This is what I call, with my colleague (and co-curator of *Iconoclash*) Joseph Koerner, “inner iconoclasm,” compared to which the “external iconoclasm” looks always at least naïve and moot—not to say plain silly.¹¹

A few examples will be enough: in the Fra Angelico fresco in San Marco, Florence, the painter has multiplied ways of complicating our direct access to the topic. Not only is the tomb empty—first a great disappointment to the

women—but the angel’s finger points to an apparition of the resurrected Christ, which is not directly visible to the women because it shines behind them. What can be more disappointing and surprising than the angel’s utterances: “He is no longer here, he has risen”? Everything in this fresco is about the emptiness of the usual grasp. However, it is not *about* emptiness, as if one’s attention was directed toward nothingness, it is, on the contrary, slowly bringing us back to the presence of presence: but for that we should not look at the painting, and what the painting suggests, but at what is now there present for us. How can one evangelist and then a painter like Brother Angelico better render vivid again the redirection of attention: “You look in the wrong place . . . you have misunderstood the scriptures.” And in case we are dumb enough to miss the message, a monk placed on the left—the representant of the occupant of the cell—will serve as a *legend* of the whole story in the etymological sense of the word “legend,” that is, he will show us how we should see. What does he see? Nothing at all, there is nothing to see *there*. But you should look *here* through the inward eye of piety to what this fresco is supposed to mean: elsewhere, not in a tomb, not among the dead but among the living.

Ever more bizarre is the case studied by Louis Marin of an annunciation by Piero della Francesca in Perugia.¹² If you reconstruct the picture in virtual reality—and Piero was such a master at this first mathematization of the visual field that it can be done very accurately with a computer—you realize that the angel actually remains invisible to the Virgin! He—or she?—is hidden by the pillar! And with such an artist this cannot be just an oversight. Piero has used the powerful tool of perspective to recode his interpretation of what an invisible angel is, so as to render impossible the banal, usual, trivial *view* that this is a normal messenger meeting the Virgin in the normal space of daily interactions. Again, the idea is to avoid as much as possible the normal transport of messages, even when using the fabulous new space of visibility and calculation invented by quattrocento painters and scientists—this same space that will be put to use so powerfully by science to multiply those immutable mobiles I defined a minute ago. The aim is not to add an invisible world to the visible one, but to distort, to render the visible world opaque enough, so that one is not led to misunderstand the scriptures but to reenact them truthfully.

To paint the disappointment of the visible without simply painting another world of the invisible—which would be a contradiction in terms—no painter is more astute than Caravaggio. In his famous rendering of the Emmaus pilgrims who do not understand at first that they have been traveling with the resurrected Savior and recognize him only when he breaks the bread at the inn table, Caravaggio re-produces in the painting this very invisibility, just by a tiny light—a touch of paints—that redirects the attention of the pilgrims when they suddenly realize what they had to see. And, of course, the whole idea to paint such an encounter without adding any supernatural event is to redirect the attention of the viewer of the *painting*, who suddenly realizes that

he or she will never see more than those tiny breaks, these paint strokes, and that the reality they have to turn to is not absent in death—as the pilgrims were discussing along the way coming to the inn—but present now in its full *and veiled* presence. The idea is not to turn our gaze away from this world to another world of beyond, but to realize at last, at the occasion of this painting, this miracle of understanding: what is in question in the Scriptures is now realized, is realized now, among the painter, viewers, and patrons, among you: have you not understood the scriptures? He has risen, why do you look far away in death, it is here, it is present anew. “This is why our heart burnt so much while he was talking.”

Christian iconography in all its forms has been obsessed by this question of representing anew what it is about and to make visually sure that there is no misunderstanding in the messages transmitted, that it is a really a messenger that is transforming what is in question in the speech-act—and not a mere message transfer wrongly addressed. In the venerable and somewhat naïve theme of the St. Gregory Mass—banned after the Counter-Reformation—the argument seems much more crude than in Caravaggio, but it is deployed with the same subtle intensity. Pope Gregory is supposed to have suddenly seen, while celebrating the Mass, the host and the wine replaced in three dimensions by the real body of the suffering Christ with all the associated instruments of the Passion. Real presence is here represented yet again and then painted in two dimensions by the artist to commemorate this act of re-understanding by the Pope *realizing*, in all the sense of the verb, what the venerable ritual meant.

This rather gory imaging became repulsive to many after the Reformation, but the point I want to make is that each of those pictures, no matter how sophisticated or naïve, canonical or apocryphal, always sends a double injunction: the first one has to do with the theme they illustrate, and most of those images, like the love-talk I began with, are repetitive and often boringly so (the resurrection, the Emmaus encounter, the Gregory’s Mass) but then they send a second injunction that traverses the boring repetition of the theme and forces us to remember what it is to understand the presence that the message is carrying. This second injunction is equivalent to the tone, to the tonality that we have been made aware of in love-talk: it is not what you say that is original, but the movement that renews the presence through the old sayings.

Lovers, religious painters and their patrons have to be careful to make the usual way of speaking vibrate in a certain way if they want to make sure that the absentminded locutors are not led far away in space and time. This is exactly what happens suddenly to poor Gregory: during the repetition of the ritual, he is suddenly struck by the very speech-act of transforming the host unto the body of Christ, by the realization of the words under the shape of a suffering Christ. The mistake would be to think that this is a naïve image that only backward papists could take seriously: quite the opposite, it is a very sophisticated rendering of what it is to become aware again of the real presence

of Christ in the Mass. But for that you have to listen to the two injunctions at once. This is not the painting of a miracle, although it is also that: rather this painting also says what it is to understand the word “miracle” literally and not in the habitual, blasé sense of the word—“literal” here meaning not the opposite of spiritual, but of ordinary, absentminded, indifferent.

Even an artist so brilliant as Philippe de Champaigne in the middle of the seventeenth century, was still making sure that no viewer ignore that repeating the face of Christ—literally printing it on a veil—should *not* be confused with a mere photocopy (see Figure 2.1). This extraordinary meditation on what is to hide and to repeat is revealed by the presence of three different linens: the cloth out of which the canvas is made, doubled by the cloth of what is called a “veronica,” tripled by another veil, a curtain, this one in *trompe l’œil*, which could dissimulate the relic with a simple gesture of the hand if one was silly enough to misunderstand its meaning. How magnificent to call *vera icona*, meaning “true image” in Latin, what is exactly a *false* picture thrice veiled: it is so impossible to take it as a photography that, by a miracle of reproduction, a *positive* and not a negative of Christ’s face is presented to the viewer—and those artists, printers, engravers knew everything about positive and negative. So again, as in the case of Piero, this cannot be an oversight. But of course this is a “false positive”—if I can use this metaphor—because the *vera icona*, the true picture, is precisely not a reproduction in the referential meaning of the world, but a reproduction, in the re-presentational sense of the world: “Beware! Beware! To see the face of Christ is not to look for an original, for a true referential copy that would transport you back to the past, back to Jerusalem, but a mere surface of cracking pigment a millimeter thick that begins to indicate how you yourself, now, in this Port Royal institution, should look at your Savior.” Although this face seems to look back at us so plainly, it is even more hidden and veiled than the one that God refused to reveal to Moses. To show *and to hide* is what true reproduction does, on the condition that it should be a false reproduction by the standard of photocopies, printing, and double-click communication. But what is hidden is not a message beneath the first one, an esoteric message disguised in a banal message, but a tone, an injunction for you, the viewer, to redirect your attention and to turn it away from the dead and back to the living.

This is why there is always some uncertainty to be felt when a Christian image has been destroyed or mutilated (see Figure 2.2). This pietá was broken to be sure by some fanatic—we do not know if it was during the Reformation or during the Revolution, as France has no lack of such episodes. But whoever he was, he certainly never realized how ironic it could be to add an *outside* destruction to the *inner* destruction that the statue itself represented so well. What is a pietá, if not the image of the heartbroken Virgin holding on her lap the broken corpse of her Son, who is the broken image of God, his father—although, as the scripture is careful to say, “none of his bones have been bro-

FIGURE 2.2.

ken”)? How could you destroy an image that is already that much destroyed? How would you want to eradicate belief in an image that has already disappointed all beliefs to the point that God himself, the God of beyond and above lies here, dead on his mother’s lap? Can you go further into the self-critique of all images than what theology explicitly says? Rather, should it not be better to argue that the outside iconoclast does nothing but add a naïve and shallow act of destruction to an extraordinary and deep act of destruction? Who is more naïve, the one who sculpted this pietá of the kenosis of God, or the one who believes there are believers naïve enough to grant existence to a mere image instead of turning spontaneously their gaze to the true original God? Who goes further? Probably the one who says there is *no* original.

How to Continue the Movement of Truth-Making Statements?

One way to summarize my point, in conclusion, is to say that we have probably been mistaken in defending the images by their appeal to a prototype they simply alluded to, although this is, as I showed above, the traditional defense of images. Iconophily has nothing to do with looking at the prototype, in a sort of Platonian stair-climbing. Rather, iconophily is in *continuing* the process begun by an image, in a prolongation of the flow of images. St. Gregory continues the text of the Eucharist when he sees the Christ in his real and not symbolic flesh, and the painter continues the miracle when he paints the representation in a picture that reminds us of what it is to understand really what this old mysterious text is about; and I, now, today, continue the painter's continuation of the story reinterpreting the text, if, by using slides, arguments, tones of voices, anything, really anything at hand, I make you aware again of what it is to understand those images without searching for a prototype, and without distorting them in so many information-transfer vehicles. Iconoclasm or iconolatry, then, is nothing but freeze-framing, interrupting the movement of the image and isolating it out of its flows of renewed images to believe it has a meaning by itself—and because it has none, once isolated it should be destroyed without pity.

By ignoring the *flowing* character of science and religion we have turned the question of their relations into an opposition between “knowledge” and “belief,” opposition that we then deem necessary either to overcome, to politely resolve, or to widen violently. What I have argued in this lecture is very different: *belief is a caricature of religion exactly as knowledge is a caricature of science*. Belief is patterned after a false idea of science, as if it was possible to raise the question “Do you believe in God?” along the same pattern as “Do you believe in global warming?” Except the first question does not possess any of the instruments that would allow the reference to move on, and the second is leading the locutor to a phenomenon even more invisible to the naked eye than that of God, because to reach it we have to travel through satellite imaging, computer simulation, theories of earth atmospheric instability, high-stratosphere chemistry, and so forth. Belief is not a quasi-knowledge question *plus* a leap of faith to reach even *further* away; knowledge is not a quasi-belief question that would be answerable by looking directly at things close at hand.

In religious talk, there is indeed a leap of faith, but this is not an acrobatic *salto mortale* in order to do even better than reference with more daring and risky means, it is a somersault yes, but one which aims at jumping, dancing toward the present and the close, to redirect attention away from indifference and habituation, to prepare oneself to be seized again by this presence that breaks the usual, habituated passage of time. As to knowledge, it is not a direct grasp of the plain and the visible against all beliefs in authority, but an extraor-

dinarily daring, complex, and intricate confidence in chains of nested transformations of documents that, through many different types of proofs, lead toward new types of visions that force us to break away from the intuitions and prejudices of common sense. Belief is simply immaterial for any religious speech-act; knowledge is not an accurate way to characterize scientific activity. We might move forward a bit, if we were calling “faith” the movement that brings us to the close and to the present, and retaining the word “belief” for this necessary mixture of confidence and diffidence with which we need to assess all the things we cannot see directly. Then the difference between science and religion would not be found in the different mental competencies brought to bear on two different realms—“belief” applied to vague spiritual matters, “knowledge” to directly observable things—but in the *same* broad set of competences applied to *two* chains of mediators going in two *different* directions. The first chain leads toward what is invisible because it is simply too far and too counterintuitive to be directly grasped—namely, science; the second chain, the religious one, also leads to the invisible but what it reaches is not invisible because it would be hidden, encrypted, and far, but simply because it is difficult to renew.

What I mean is that in the cases of both science and religion, freeze-framing, isolating a mediator out of its chains, out of its series, instantly forbids the meaning to be carried in truth. Truth is not to be found in correspondence—either between the word and the world in the case of science, or between the original and the copy in the case of religion—but in taking up again the task of *continuing* the flow, of elongating the cascade of mediations one step further. My argument is that, in our present economy of images, we might have made a slight misunderstanding of Moses’s Second Commandment and thus lacked respect for mediators. God did not ask us not to make images—what else do we have to produce objectivity, to generate piety?—but he told us not to freeze-frame, not to isolate an image out of the flows that only provide them with their real (their constantly re-realized, re-represented) meaning.

I have most probably failed in extending the flows, the cascade of mediators to you. If so, then I have lied, I have not been talking religiously; I have not been able to preach, but I have simply talked *about* religion, as if there was a domain of specific beliefs one could relate to by some sort of referential grasp. This then would have been a mistake just as great as that of the lover who, when asked “do you love me?” answered, “I have already told you so many years ago, why do you ask again?” Why? Because it is no use having told me so in the past, if you cannot tell me again, now, and make me alive to you again, close and present anew. Why would anyone claim to speak religion, if it is not in order to save me, to convert me, on the spot?

NOTES

1. Editor's note: In the spirit of Latour's argument, the essay is presented in the form of a direct verbal address.
2. William James, *The Varieties of Religious Experience* (Harmondsworth: Penguin, 1902).
3. For an extension of this argument and of its practical demonstration, see Bruno Latour, *Jubiler ou les tourments de la parole religieuse* (Paris: Les Empêcheurs de penser en rond, 2002). I have turned around those questions in C. Jones and P. Galison, "How to Be Iconophilic in Art, Science and Religion?" in *Picturing Science, Producing Art* (London: Routledge, 1998), 418–440, and Bruno Latour "Thou Shall Not Take the Lord's Name in Vain—Being a Sort of Sermon on the Hesitations of Religious Speech," *Res* 39 (spring 2002): 215–235. For a general inquiry into the background of the comparison between science and religion, see Bruno Latour and Peter Weibel, eds., *Iconoclash-Beyond the Image Wars in Science, Religion and Art* (Cambridge, Mass.: MIT Press, 2002).
4. See, for instance, my *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge: Harvard University Press, 1999).
5. Cited in Putnam essay in this volume, page x.
6. See Boyer essay, this volume, pp. xx–xx, and his book *Religion Explained: The Evolutionary Origins of Religious Thought* (New York: Basic Books, 2001). Evolutionary theology shares with the old natural theology of the eighteenth century the admiration for the "marvelous adjustment" of the world. It does not matter much if this leads to an admiration for the wisdom of God or of evolution, because in both cases it is the marvelous fit that generates the impression of providing an explanation. Darwin, of course, would destroy the natural theology of old as well as this other natural theology based on evolution: there is no fit, no sublime adaptation, no marvelous adjustment. But the new natural theologians have not realized that Darwin dismantled their church even faster than the church their predecessors, whom they despise so much.
7. Alfred North Whitehead, *Religion in the Making* (New York: Fordham University Press, 1926).
8. Under William James's pen, science is a "she"—a nice proof of political correctness before its time. . . .
9. For a much more advanced argument about visualization in science, see Peter Galison, *Image and Logic: A Material Culture of Microphysics* (Chicago: University of Chicago Press, 1997); Carrie Jones and Peter Galison, eds., *Picturing Science, Producing Art* (London: Routledge, 1998); and Latour and Weibel, *Iconoclash* (Cambridge, Mass.: MIT Press, 2002).
10. See the catalog of the exhibition, Latour and Weibel, *Iconoclash*.
11. See Joseph Koerner "The Icon as Iconoclash" in Latour and Weibel, *Iconoclash*: 164–214.
12. Louis Marin, *Opacité de la peinture: Essais sur la représentation*, (Paris: Usher, 1989).

BIBLIOGRAPHY

- Galison, Peter. *Image and Logic: A Material Culture of Microphysics*. Chicago: University of Chicago Press, 1997.
- James, William. *The Varieties of Religious Experience*. Harmondsworth: Penguin, 1902.
- Latour, Bruno. How to Be Iconophilic in Art, Science and Religion? In *Picturing Science, Producing Art*, edited by Jones, Carrie, and Peter Galison. London: Routledge, 1998.
- Latour, Bruno, and Peter Weibel, eds. *Pandora's Hope: Essays on the Reality of Science Studies*. Cambridge: Harvard University Press, 1999.
- . *Iconoclash—Beyond the Image Wars in Science, Religion and Art*, Cambridge, Mass.: MIT Press, 2002.
- . *Jubiler ou les tourments de la parole religieuse*. Paris: Les Empêcheurs de penser en rond, 2002.
- . “Thou Shall Not Take the Lord’s Name in Vain—Being a Sort of Sermon on the Hesitations of Religious Speech.” *Res* 39 (Spring 2002).
- Marin, Louis. *Opacité de la peinture. Essais sur la représentation*. Paris: Usher, 1989.
- Whitehead, Alfred North. *Religion in the Making*. New York: Fordham University Press, 1926.



