

HOW A REFLEXION ON THE INSPIRED NATURE OF THE BIBLE CAN SHED LIGHT ON SCIENTIFIC INVENTION: AN EPISTEMOLOGICAL APPROACH

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This paper proposes to address an important epistemological question. It so happens that its object meets one of the sources of the serious difficulties that mankind is faced with today. As a matter of fact, a number of conflicts are linked to religious attitudes which are grounded on a Text which is considered as Revelation, coming from God or a sacred tradition, and thought to be the only possible source of knowledge. Thus, conflicts of an economical or a territorial nature are overdetermined and carried to excess. And, as I discuss the inspired nature of Biblical texts, I am fully aware that I am approaching a zone of passionate debates.

At an academic level, my reflexion on 'the paths of discovery' encourages me to find, in the religious reference, a motivation for research, and a degree of confidence in the value of scientific work. Its foundation is often found in sacred texts. For some people, an inspired text must coincide with scientific discoveries, while other people consider that the religious field and the scientific field are totally impervious one to the other and are doomed to co-exist without ever merging or combining. Both positions, however, strike me as equally inadequate and unable to account for the unity that exists in the person of the researcher as well as in culture and the history of thought. This is why academics adopt a different viewpoint: that of dialogic complementarity, as 'science and faith are part of a system', which means that they are interacting on each other in a reciprocal process which respects their specific nature.

It is therefore legitimate to try to show how a theological reflexion on new approaches in the religious field can shed light on how scientific invention works – while keeping in mind that, in return, debates internal to science have an impact on theology, since in both cases, what is at stake here is a relation to truth.

1. INTELLIGENCE AT WORK

An image is widespread in the religious world to describe inspiration. It has long been popular in the Christian tradition. It favours the use of a verb, the verb 'to dictate': God is supposed to have dictated a text to a writer; thus, God could be described as the 'author' of the text. All the more so, as the human writer would have been carried away from a normal human condition; the inspired scribe would have been in a trance, described as ecstasy, or rapture (or even 'torpor' – in hebrew, *tardema*).

The use of the verb 'dictate' is based on a certain conception of the relation of God and men, and of nature and grace. For those who are in favour of the conception of inspiration as dictated by God, the message owes nothing to nature, and must be passed on in a manner that breaks away from ordinary daily life. On the other hand, the fact that the inspired person is in a trance allows one to say that his subjectivity has not corrupted the message received from above. Such a conviction is very much present in the traditions which insist on the mediocrity of the messenger, or on his having broken away with the normal conditions of human life. As for Catholic theology, it has given up such a representation. It considers that the writer's activity is important and must be taken into account.

1.1. *The Writer's Activity*

The official position of the Catholic Church rests on two principles, which come under the headings of anthropology and theology.

In the first place, Catholic theology has acknowledged the value of scientific methods applied to Biblical texts. It has introduced scientific methods into the study of texts by using literary, linguistic, historical, archeological agents – and by comparing Biblical texts with non-Biblical texts to study their sources. As a result, it followed that the situation of the Biblical texts was taken into account in the history of universal culture. To acknowledge the structural differences that exist between poetry, epic, historic narrative or a wise man's reflexion, points to an attitude which is not rigid, but well-balanced and humanized. The truth of a text is thus reached through various modes of expression. The taking into consideration of such a diversity of expression and of the writer's historical roots alters the naive notion of inspiration, understood as dictation.

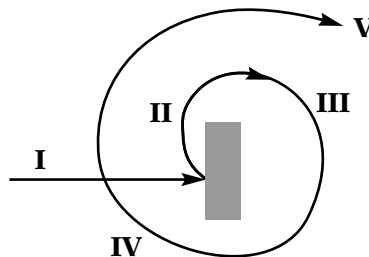
Inspiration should not destroy human subjectivity. To justify everything by resorting to ecstasy amounts to negating the value of the person, of freedom of consciousness, and therefore of human dignity.

The second principle is, properly speaking, of a theological nature, as an answer to the question: what is the underlying conception of God behind the presentation of inspiration as a breaking away from the normal conditions of spiritual life? Would God behave as an enemy of man, or as a wily master? The Catholic tradition firmly rejects such a conception. The document of the Pontifical Biblical Commission on *The Interpretation of the Bible in the Church*, with a preface by Cardinal Ratzinger, acknowledges the value of the scientific approach applied to the Bible. The document recognizes that it is important to tell one literary genre from another, in order to understand the wording of a text.

On these two principles, Catholic theology has made its doctrine of inspiration quite clear. It gives strength to the conception of the action of the Spirit, as formulated by great theologians like Thomas Aquinas and brought up to date by his disciples, among whom Father Lagrange ranks among the greatest.

1.2. *The Prophet in a Tradition*

The most delicate point concerns prophecies. It is indeed easier to acknowledge the labour of a writer who composes a work, of a historian who quotes his sources, or of a jurist who composes a legal code. On the other hand, a prophet is often thought of as the witness of the otherworldly. This is why I shall center my remarks on this point to show that prophecies are the fruit of a labour which demands clear-headedness, efforts and creativeness. When you analyse a prophet's writings, you realize that his resources are those normally at the disposal of a thinker or a man of action, when he tries to express something new. I shall take as a reference a well-known book from the Bible, *the Book of Isaiah*, which plays a major role in the Judaeo-Christian tradition. I shall illustrate it in the following way:



(I) a tradition (II) a blocking point (III) creation (IV) checking (V) opening on to the future.

Textual analysis shows that a prophet belongs to a tradition (I). This tradition forms a reference common to a social group: this is why the prophet can rely on it when he addresses his interlocutors. The prophet's mission is to actualise it. Or in other words, he has to show its pertinence and its value at a given moment, when the situation is confused and when those in power do not know what to think (II). Thus Isaiah addresses King Ahaz who despairs of the salvation of Jerusalem, and reminds him of the promise that was made to his father David (*Is* 7, 1-9). In such a somber and dramatic situation (Jerusalem is threatened), the prophet Isaiah explains, clarifies the import of the tradition concerning the city of Jerusalem. His intention is thus inscribed within the framework of a tradition which supports him. By showing the value of such a tradition under new circumstances, he creates something new. The newness lies in his qualities of observation, but also in his skill of expression. The prophet is able to make out, among the noises of the world, what is significant and what makes sense among the phenomena he has observed; he can, thus, produce elements serving to judge the present, and look towards the future.

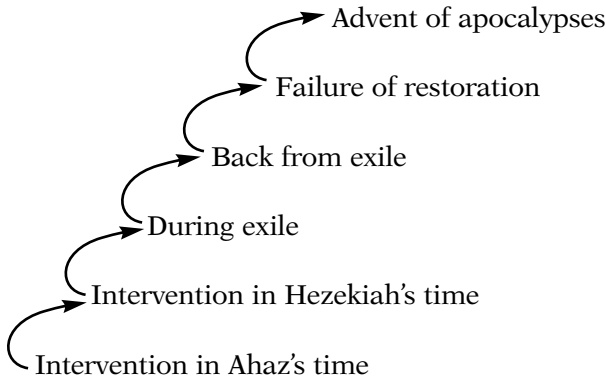
The words that are pronounced are not only a statement of facts: they point towards the future. Thus, Isaiah says to the King who has just killed his own son, that another son will be born to him and that that son will be a prince of peace (*Is* 7, 10-17). The voice of a prophet is rooted in the past, inscribed in the present, but opens onto the future – thus needing to be verified.

1.3. *The Necessity of Verification*

The Prophet's word is not heard only as the word of God. His conviction does not necessarily entail adherence. So, the word needs to be verified (IV). The Book of Isaiah offers a good criterion of discrimination: is considered as true, the word which is accomplished. When Isaiah says that Jerusalem is the Holy City and that it will not be taken because God resides in it, his word is made true when the siege is raised in a sudden manner. The demand for verification is decisive. His criterion is not an otherworldly behaviour, not some kind of fervour or aesthetic emotion, but the confrontation with facts and events. This is why the prophet himself offers the means of verification – as did Isaiah when, rejected and threatened with death as he was, he decided to confide his word to writing, so that it could be confronted with the coming events (*Is* 8, 16-18).

So, what authenticates the word of the prophet is not the extraordinary, or unusual way in which it is voiced, but the fact that it is firmly

rooted in a tradition and offers itself to verification. Isaiah will use the same message when Jerusalem is besieged under King Hezekiah (*Is* 36, 1-37). The above-mentioned diagram repeats itself: this is how a meaningful figure emerges:



This is why it is possible to suggest an epistemological graphic representation for this articulation of historical periods – in order to inscribe what is new in a tradition which opens onto the future. Such a process is universal, and concerns all intellectual approaches of invention. It is of a dynamic nature, and expresses the confidence one can have in the possibility of speaking and making oneself understood. It expresses a specific relationship to time, as mediated by word.

First stage: receive a tradition

Second stage: find in it a light to enlighten an unusual event

Third stage: verification by fact or events

Fourth stage: adopt an attitude open to the future.

There follows from what precedes a richer approach to knowledge and a widening of one's faith confession. This process of discovery is universal and conveys the principle of Catholic theology, according to which the prophet acts in accordance with the natural capacities of reason and intelligence.

However divine [the Scriptures] are, they are also human. They bear the traces of human work, of a human composition. On each book, the author has left the mark of his own time and (sometimes very deeply so) of his personality ... It is absolutely not true that the sacred writers had only an easy job to perform. They had to make investigations, to collect materials, to think: not less than ordinary writers (entry: 'Inspiration' in *Dictionnaire de la Bible – Supplément*, Paris: Letouzey & Ané, 1949, col. 482-559).

They wrote in full possession of their intelligence and faculties, of their own free will, they were really authors, composing their works as authors necessarily do: each according to his own genius and character, each in his own style (*Ibid.*, col. 510).

2. AN EPISTEMOLOGICAL DIAGRAM

The preceding comments show how a prophet proposes things that are new. Firmly entrenched in a tradition, on the basis of this tradition, he judges a situation which his contemporaries do not understand. He brings together events, situations and attitudes and shows the links that exist between them. This is how he brings something new into the field of knowledge. There, as is the case in sciences, what counts is a new look at things: this is why prophets are called visionaries, or 'seers' (in hebrew, *nabi*). What is new is of the order of light. The prophet's message is related to reality. One must now therefore examine the relationship that exists between the various fields of knowledge: representation, explanation, interpretation, and understanding.

2.1. *A New, Enlightening Answer*

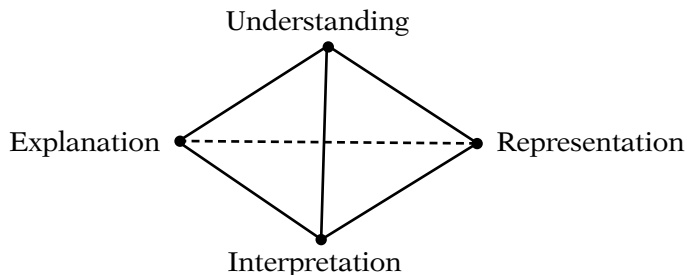
In every activity of knowledge, the discovery of truth goes through four phases: representation, explanation, interpretation, and understanding. It is in the relationship that exists between those four phases of knowledge that lies any discovery of something new.

1. In the first place, there is representation. It would be naive to think that a discourse is true, because its terms, notions, or concepts adequately correspond to the structure of reality – as it were by some sort of transfer. In the prophet's language, there are terms, images, relations which voice a certain outlook on things. This is why biblical prophecies have clashed with the way in which kings and priests looked at things. The prophetic word destroys the network of the obvious and establishes connections which no one imagined or thought possible. The word creates a new universe. This is why talking of description is not enough: this is why one must talk of representation.
2. The representation must be linked to an explanation which seeks, behind the phenomenon, an order, a structure, a sequential pattern which refers to something beyond immediate perception, in such a way

that the object of the discourse cannot be identified as the ultimate reality. This is why, in epistemology, one speaks of phenomena.

There is a necessary connexion between representation and explanation, because the prophet knows that events are not the fruits of sheer chance, but actualize a plan – what we call the history of salvation, or Holy history.

3. The passage from representation to explanation is achieved through intelligence. The prophet takes upon himself the responsibility for his assertions; it is the work of interpretation which judges and pronounces itself on the amount of truth which is implied in his analysis and reflexion. This is where the commitment of the prophet lies in the uttered word.
4. But if we consider those three points only (representation, explanation and interpretation), there is a risk of falling into the error of solipsism, or of an infantile form of omnipotence, which genetic psychology describes as magic. There is another demand, for understanding. To understand is to acknowledge that what is taking place is not only a theoretical construction, but has to do with reality, and therefore with a claim to objective truth.



2.2. Demand for Universality

The validity of the epistemological pattern is confirmed by the destiny of the prophetic word. The change brought about by the prophet's word is not limited to only one point. It opens a wider perspective. What is new, is not any particular doctrinal point, but a point which is at the core of a whole network of signification.

Thus emerges a totally new way of looking at facts. The prophet proceeds to a fresh reading of history as a whole. He determines, in the course of time, events which he shows are of a founding nature, and cannot be reduced to the normal flow of insignificant events.

Thus, in the second part of the Book of Isaiah (ch.40-55), one can see a theology of the word taking shape and developing, which modifies the way in which his people, till then, perceived the world. Isaiah's theology no longer presents God's action as it were on a small scale. He presents creation as an action through the word, which privileges relationship in full respect of autonomy and gives foundation to the study of the world. The world – created by the word – could not be considered as devoid of sense or of immanent rationality. There is then a justification for knowledge, which recapitulates previous learning and gives it more than a representation or an explanation – something which is a characteristic of understanding. This is confirmed by its fruitfulness – a point which must now be addressed.

2.3. *An Eschatological Horizon*

The way to newness is opened by the discovery of a new way to look at things. It starts in the present, in relation with past and future events. But it is not satisfied with following the course of time: it is also supported by a demand for understanding which reaches far beyond obstacles. The first obstacle is that of the irrational. Where other people see something absurd and nonsensical, the prophet sees a reason. It refers beyond the realm of explanation, to a more radical sort of intelligibility, which presents itself like a horizon.

The word horizon is characteristic of the fundamental attitude of research. One must map out its various elements.

1. There is a horizon for someone who looks at a distance in a direction which accounts for his walking. Thus, the driving force behind his research is not simply a dissatisfaction with the present, but a desire which motivates the research. To be specific, the prophet's desire is explicitly voiced in terms of a quest for God, in a direction which is that of a tradition which he renews.

Because this approach is that of faith which does not associate with the wording of things but with reality (according to an expression of Thomas Aquinas), it is possible to describe this horizon with one word: that of real.

2. In relation to a certain desire, a horizon is linked with a certain manner of seeing things. Research only progresses by acknowledging one's limitations and specificity.

3. A third point, which is part of the notion of horizon, concerns movement or moving forward. The horizon moves forward as one goes along. This is why the value of a discovery is linked with the way in which it bears fruit. The analysis of the book shows that the prophet Isaiah's word has

been ceaselessly resorted to. His first intervention, during the royal period of King Ahaz, strengthened the movement which later structured itself around a messianic expectation, causing David's city to become the object of a worldwide design. The third part of the Book of Isaiah gives to this messianic expectation a more universal dimension, since in the great city, the capital of a vast empire, the faith of his people was confronted to the riches of a great civilisation.

Thus newness escapes the person who introduced it; it becomes the common good of knowledge. It defines a new field of rationality which remains open to new discoveries.

Conclusion

The pattern displayed in the above chapter shows that the functioning of the prophetic word has nothing singular about it. It has something to do with a human way of relating to truth. A kind of truth that cannot be reduced to a knowledge which has been verified, formulated in a logical manner. This way of connecting the various elements of research together (representation, explanation, interpretation and understanding) is well in keeping with what today's science has recently gone through, in quantum physics as well as in biology, when they gave up resorting to determinism and to the logicism of classical science.

This allows us now to discuss an essential aspect of discovery, where the singularity of the researcher's work appears: the decisive point of invention or of discovery.

3. INVENTION AND INTUITION

One point remains to be dealt with: the moment of invention. It is normally named intuition. On this point, many issues are confused. It is important to clarify things, starting from the biblical prophecy – or, in other words, with the word in action. It will be easy to see its relation to other modes of intellectual creation.

3.1. *Symbols*

In the Bible, the prophet is the Man of the Word. The remarks concerning the lives of the prophets show that the word of the prophet, word in action expresses the whole being of the speaking person.

This link, between person and word, falls within the province of what humanities call symbolism. Two elements are meeting here: the act of bringing together is the first meaning of the word symbol. A symbol establishes a link and describes a relation of alliance.

So, the prophet Isaiah gives names to children which are programmes for the future of their people – a future of sorrow (in the name of *Maher-Shalal-Hash-Bas*: swift spoils – imminent looting – *Is* 8, 3) or of happiness (in the name of *Immanou-El*: God with us – *Is* 7, 14)!

The word of the prophet creates a new way of looking at things, where the object which is represented is not separated from all the associations and connections, which make it into a significant object. His word cannot be reduced to words, but refers to a whole system. Now, the symbol links the universal to the individual – and therefore serves intuition, which is the moment of invention.

3.2. *Intuition*

The notion of intuition is one of the most difficult notions that exists. It is used in a variety of ways by philosophical schools, and by scientists – often in too general a sense to be able to serve as a criterion. Or else, it rapidly lapses into psychologism, which avoids considering the very nature of knowledge. Those various approaches have one point in common: the unity of spirit. Intuition can therefore be defined as the realisation of the unity of spirit in action. The study of the prophets shows it: whereas it is difficult to penetrate into the intimacy of a prophet, prophetic acts show him in the words he pronounces. Indeed, the word is made up of multiple variations in the voice; but those cannot be separated from their origin, which testifies to an intention, so that the sounds are gathered together into a meaningful whole. When the intention has taken possession of its object in the act of understanding – as above defined – intuition occurs.

The original unity of the word implies that representations be assumed. Intuition does not give direct access to reality itself, but repeats what has already been given and appears in a new light, in a unified resumption and a new commitment of the spirit. Intuition is never entirely without representations. But it occurs when a link has been found between phenomena that so far had been kept apart. It could not possibly happen in a totally empty mind.

From these remarks concerning prophetic activity, one can easily draw elements to illustrate an epistemology of scientific invention, where intuition is never separated from the demand for objectivity.

3.3. *In Search of Objectivity*

In order to understand the notion of objectivity in the field of prophetic inspiration, one must remember that all prophetic activities are linked to a mission. In order to speak of the fidelity of a prophet, a naive approach resorts to the notion of dictation. As it discarded this notion which is contemptuous for man, Catholic theology has not given up objectivity. It has, quite on the contrary, given objectivity a much less naive foundation. As a matter of fact, a prophet pronounces public words and his message is inscribed in a text.

In a text, there are several elements. The first one is the presentation of a text which corresponds to precise questions, that belong to the realm of description (the actors, and the conditions of their actions). The second one is the very nature of the text in what exegetes call the 'literary genre' – a matter of style and structure. The third one is the repercussion of the text on the reader. This shows that the prophetic text only exists in relation to others; and that the relationship is reciprocal between the prophet and those to whom he addresses his message. Thus, prophetic action attains objectivity in so far as it is not self-oriented, but reaches out to the whole community of believers.

In Catholic theology, it is the community which decides on the inspired character of a text – not the claim of its author. It is the community which receives a text as coming from farther away than its human author through the ordeal of time.

These comments which are situated on the epistemological level, do not deter one from asking questions about the psychological conditions of invention. I must then conclude by examining under what conditions invention is made possible; we shall recognize demands which are linked to the nature of human intelligence.

4. PSYCHOLOGY OF INVENTION

4.1. *Availability*

The first element is availability. This is a delicate point, because it requires a great amount of knowledge and at the same time it needs one to distance oneself from that knowledge, which cannot be considered as sufficient. There is a field which escapes investigation. In order to find a new

perspective, one must put into practice what philosophers call ‘methodical doubt’, and what mystics describe as ‘the void’.

The analogies with the mystical experience are enlightening. The mystic person is indeed bent on meeting his God, of Whom he knows that He is above all that exists. He must dismiss all representations which would lead to a kind of rigidity. He must discard from his mind all that seems obvious. The mystics are, for that reason, tormented beings: they are never satisfied with what has already been given to them, because they know that it is not the ultimate gift.

In order to follow such a path, it takes a great degree of availability and a lot of humility. Such was the attitude of the founding masters of science. In their scientific discourse, they have accounted for their discoveries through an analogy with the mystics – an analogy which, as we have seen, was founded on prophetic experience.

4.2. *Maturity*

Although the prophet does belong to a tradition, he is not imprisoned by it. He somewhat distances himself from what he has received.

In fact, prophets have always been at odds with their own culture and environment. Such a situation has no value in itself, but it often is the counterpart of a critical situation. The new appears in a perspective of breaking with tradition. It seems to me that this is only the other side of a situation which is much more important: that of inner unity.

The creation of new things implies an internalization of the practical methods and universal principles of faith. This inner unity is the source of a fecund spiritual life, which enables one to make comparisons – often by analogy, but sometimes just by ordinary metaphors – and to operate differentiations – often through a refinement of concepts and a discrimination between the levels of explanation.

This spiritual quality, it seems to me, can be described as ‘maturity’. The word does convey the notion that a life of faith is possible only in a global attitude of one’s being. It is a way of being. This is why a prophetic experience can only be appraised through the life quality of him who claims to speak in the name of an absolute which cannot be immediately vouched for or verified.

4.3. *Frailness*

In order to create something new, one needs a certain amount of freedom and consequently one needs to experience a certain frailty, one must

break with ready-made certitudes and venture onto unknown grounds. Intelligence, fragile as it is, knows how to recognize, in a vivid, intense way, what is. This is the reason why the autobiographical fragments included in the prophetic books show the torments and the doubts of those who propose their messages. Doubts concerning their own mission is a typical experience for prophets. Doubts often show that the prophet's status is not of his own choice, but has been imposed upon him by a will which he cannot control. Prophets often say that they wish to go back to their native countries, and return to the gentle safety of their homes and serene company of their friends. However, the path lies open before them, and they can only move forward.

These are the universal elements which are valid for all creators and innovators, whether artists or scientists. Prophets are also vividly aware of the shortness of time and of the precariousness of life. They are forced to move forward as though for some urgent purpose.

This awareness is closely related to the fact that they are also vividly aware that the object of their knowledge is inexhaustible, since God lies beyond all representations. The prophet knows that he is facing an infinite which no acquired lore can once and for all circumscribe. If he thought differently, he would not take the trouble to seek answers for new questions. He would content himself with inferring answers from what already exists.

At the end of this third part, it appears that the prophet does deserve his title of 'seer'. He is the one who saw what others did not see at the time when he was speaking. Now the notion of sight is at the same time indicative of dimension and of unity. Vision determines either a wider field (when unknown elements are perceived and explained away) or a deeper one (where what was described can now be explained and even understood); but vision is one, since it is in the same one act that various, irreducible elements are grasped. In this matter, one can see the illuminating influence of a principle which is not only a model of representation, but indeed a light which illuminates whatever comes into its field.

General Conclusion

The above theological discussion implements a certain conception of God. It rests on the conviction that God does not exert violence against human beings. God does not impose upon his prophets messages which would be beyond the scope of their abilities and which they would carry like foreign bodies within themselves. God does not force anyone to do

what he would not like to do or even to do something which jeopardizes his self-control.

This is why I must conclude by emphasizing why the Christian tradition speaks of inspiration. The reference to the Spirit of God is here relevant. The word Spirit conveys something which falls within the province of intimacy, of a presence, of discretion. There is in the action of the spirit persuasion, respect and patience, as is conveyed in a celebrated prayer of the liturgy of Whit Sunday, where the Holy Spirit is said to warm up what is cold, to make supple what is rigid, to pacify what is tormented and to straighten up what is distorted.

Lastly, I believe that such a conception of inspiration in the Scriptures results in an exclusion of violence. Because to consider a text as coming directly from God, without important human mediations, is not a procedure of which one religion would have the monopoly. Many are the populations claiming to draw their inspiration from founding texts allegedly dictated by God, and supposed to be the source of the one exclusive truth! Between such religious groups, war is inevitable. As a matter of fact, it has taken place in the past, and is still going on today. One of the criteria of truth of a religious denomination is, it seems to me, the way in which the revelation to which it adheres is lived. It is a useful criterion to distinguish between a sect and a religion. It is one of the major issues concerning peace in the world. Such was my concern when I chose to address this subject in the above discussion.