

Does Basic Research Have Meaning?¹

A Few Remarks by a Catholic Mathematician

by Laurent Lafforgue²

We researchers and academics, who have devoted our lives to study, to deepening and handing on knowledge, are accustomed to think that our labors possess special value. Without quite daring to say it outright, we often believe that the researcher's or the academic's profession is more than an ordinary job. The world to which we belong, which is united in a kind of cult of science, knowledge, and intelligence, comforts us in our rosy perception of what we do. This cult of science comprises several now legendary historical figures who provide powerful examples of the centuries-long quest for knowledge.

Our pride and self-confidence crumbles, however, when we realize that the majority of people outside academia demonstrate, whether through their words or their attitude of disdain, that they don't see any great value in our learning, and that, at any rate, they don't consider the pursuit of learning at all necessary to leading a good life. On the contrary, for many people outside universities, academic life – that is, a life devoted to the service of knowledge – is not real life.

In fact, many academics are themselves prey to such doubts. When academics come to challenge, at least partially, the value of science and knowledge, or even just opinions prevailing in scientific and academic circles, they provoke among their colleagues such lively reactions that they themselves privately come to doubt what they are doing and the direction their life has taken.

And yet it makes sense for academics to face a basic question that really deserves to be asked: is it absurd to engage in research and the transmission of knowledge? Is it absurd to devote one's short life to the austere study of a particular discipline--in other words, to knowledge that is necessarily very partial? Does this make any sense?

To begin, we can ask ourselves how our lives have gradually taken the

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course they have. How and why have we become academics, mathematicians, scientists, researchers, and professors from all branches of knowledge?

If we reflect upon this question, we quickly realize that it is first and foremost for social reasons that, through the years, we have directed our lives toward the service of knowledge.

Since childhood, we have attended schools and have spent a considerable amount of our time on school work. This assumes the existence and the universal extension of the institution we call “the school,” in which millions of teachers and professors throughout the world work and to which governments and societies allocate enormous resources. Almost as importantly, most of us have grown up in families where learning, studying, and sharpening the mind were considered highly valuable. This belief, instilled by our parents and grandparents, we subscribed to many years before being aware of it. It is a belief that we have imbibed like the air we breathe and which has shaped our personality.

Later, we were welcomed into academia, first as students, then as professors and researchers. This assumes that the University exists, that it is socially recognized and valued to study there. It assumes as well that universities receive sufficient resources for countless young people to study there under good conditions and for entire societies of professors to make a good living and to find tangible signs that their labors are valued. It is by the way remarkable that the country in which we find ourselves, the United States, where pragmatism and the economy rule, places such pride in its universities and allocates to them resources commensurate with the recognition it grants them.

This reality, which speaks louder than any dissertation about the value of learning, invites us to reflect on the purpose of the institution of the University and on the meaning of the value that broad swaths of society accord to knowledge as such.

Naturally, millions of families worry about their children’s studies primarily because parents hope for social advancement and for a better standard of living as a reward for these studies. This observation, however, only shifts the question of the value accorded to knowledge from families to society as a whole: in a society that accorded no value to knowledge, studying would not enable social advancement, and researchers or teachers would not even be able to earn a living.

It could be argued that, with the ever more extraordinary development of technology, knowledge has become a source of power and wealth, but this does not explain the foundation and development of the University during the Middle Ages, the emergence of the Greek philosophical schools, or the appearance in many civilizations of intellectual circles devoted to seeking knowledge. Human beings have dedicated themselves to study and reflection. They have been driven

by the wish to pass on the fruits of their work. They have gathered disciples around them, long before study led to the development of a new power over things and people. Even today, most academic disciplines have no direct link to techniques for mastering the world.

In the end, the following has to be admitted: the primary purpose of the University, as for all traditions of research and transmitting knowledge and the institutions that have embodied these traditions, is a desire for truth.

We live in an age of relativism in which most people feel awkward with the concept of truth, even to the point of being reluctant to use the very word that denotes it. This awkwardness and reluctance can be found even among scientists and academics. And yet, any research article or teaching implacably carries with it a claim to truth, without which it would not even exist. If some degree of truth were not credited to them, no research article would ever be read, no teaching would ever be listened to, and no professor would be recruited by any institution. If researchers and academics did not retain deep within themselves an unwavering confidence in truth--whatever they may think of it superficially and whatever they may say about it--then they would never publish a single article, they would never give any lecture, they would never appear in front of students or exchange views with colleagues. If our contemporaries had really given up on truth as much as most of them claim to have done, then our universities, our academies, and our research centers would be abandoned and crumbling to dust. And yet, looking around us, all these institutions exist and flourish. There are more of them than ever. These facts, more persuasively than any declaration, indicate that our contemporaries, whatever they may say, have not given up on truth.

The very word “truth” exists primarily as a call for a mysterious reality that can never be completely possessed. It is impossible to enclose truth in any definition that would contain it, and all the precise ideas that we can formulate about it only allow us to approach it. And yet, the ideas that humanity has held about truth underpin the development of the different historical manifestations of institutions—schools of wisdom, schools of philosophy, and universities—that were founded to advance truth.

Let’s review some ideas on truth that have come to mind over the course of history.

First, accuracy and factuality are characteristics of truth. Truth manifests itself in what is real, in the facts as they are. In this sense, truth is the opposite of what is false.

Secondly, truth manifests itself more intensely in that which is essential, in what probes deeply into things. Truth, in its fullness and in its entirety, is funda-

mental because it is at the foundation of what is. Truth, in this sense, is the opposite of what is apparent, illusory, and also of what is secondary, the peripheral. Truth is at the center.

Thirdly, truth is not only at the center, but at the heart. Truth is what is likely to touch each of us at the very core of our being and of our life. It is the opposite of what is indifferent, of what in reality is not likely to nourish us. Truth is substantial.

The common feature of the schools of wisdom that developed in various civilizations and that still flourish today is that they view truth in the context of life. In seeking the good life, we look for a certain truth about life that is likely to help us live better. We sincerely look for and keep only what seems to be directly related to the lives we lead.

The ancient Greek schools of philosophy were certainly schools of wisdom in this sense, but their distinctiveness was also to study more deeply truth's second dimension. They sought the essence of things and of the world, even if the knowledge they developed about the essence of the world increasingly had only a tenuous link to life.

Invented by the medieval Latin Church, the University has from its foundation instilled the deepest respect for accuracy and factuality, which were seen as taking precedence over everything and being universally applicable to all objects. Neither learning about the essence of objects and of the world nor looking for a truth related to our life was to distract from the absolute discipline of accuracy and factuality. This characteristic feature of the University goes hand in hand with another defining characteristic : the way in which universities are structurally organized continually to transcend the teaching they provide by endlessly broadening and deepening it. All the schools of philosophy, from ancient Greece to the Enlightenment encyclopedists, have dreamt of one day arriving at total and definitive knowledge, a knowledge that encompasses the world. Indeed, the dream lives on in the minds of some scientists today. And yet, the very principle and structure of the University presuppose that this dream is a vain one.

The principle at the foundation of the University and which distinguishes it from other institutions created for the pursuit and transmission of knowledge is all the more surprising because it goes against very strong human emotions. Does it not seem absurd to devote one's existence to developing and teaching knowledge in an institution created to go beyond it? Does it not seem absurd to devote a significant portion of our short lives to disciplines with no direct link to life, such as, for example, mathematics? Does it not seem absurd to give the greatest possible care to the knowledge of totally insignificant things, furthest removed from what is essential in any sense of the word? Are we not gripped by this feeling of absurdity when we read the titles of research papers in areas far

removed from our own, when these titles seem insignificant and even ridiculous and we suddenly realize that the titles of our own papers would very likely produce similar reactions in people outside our area of work?

And yet, the University exists: founded in the twelfth and thirteenth centuries, it has never stopped growing over the course of history. Today the University constitutes one of the most important institutions in almost every country of the world.

Why? Wherein lies the vitality of the University? What is the source of the silent strength that enables its members to overcome very powerful human emotions in order to devote their lives to the meticulous study of facts that are apparently irrelevant and unrelated to life?

For my part, I am convinced that this vitality is theological in nature. The origin of the University lies in Jewish and Christian revelation, as developed in medieval Catholic theology. In saying this, I am not speaking only, or even particularly, of officially Catholic universities, I am speaking of the University as an institution in general. The University takes its principle from its development within the Church more than eight centuries ago.

The principle at the foundation of the University's universal and systematic course of study and its injunction scrupulously to obey facts—the principle still underpinning the University—is clear. It is the revelation that God is the Creator of all things.

Because all things are created by God, they all deserve to be studied. Because all things were created by one God, they are all related to the absolute, even if what connects them and their tiniest details to the source of all being is obscure. To carry on with the study of any particular topic when its link to the absolute remains hidden—seemingly even more so as knowledge progresses and expands ever further—assumes that, at a level deeper than consciousness, the community of researchers maintains a firm faith that all things deserve to be studied.

All things deserve to be studied with scrupulous attention to accuracy, with a desire to see them as they really are and to listen for their delicate truth. We must always be ready to challenge our understanding of them, so that their silent language can be ever more faithfully decoded. All of them, being created by God, say something about their Creator, who is infinitely greater than we are and who does not deceive us. Because all things were created through the Word of God, all things are words of God, words of the Word.

But the God of Jewish and Christian revelation is not only the Creator of all that is, he is specifically our Creator. Unlike things, God created mankind “in our image, after our likeness” (Genesis 1:26). He who is the Word, the *Logos*,

gave us language and reason. In a wonderful study of St. Thomas Aquinas,³ the German philosopher Josef Pieper showed that the concept of creation by the God of revelation has two corollaries for St. Thomas. They underlie his entire thought about the world. First, there is no limit to the intelligibility of the world created by God. Secondly, the intelligibility of creation is unfathomable, inexhaustible, and infinite. Thus the greatest master of the medieval University explains the possibility of endlessly extending knowledge, which still forms the basis of the existence and structure of the University.

More than this, the God of revelation who created humanity “in our image, after our likeness,” creates each of us out of love. He intervenes in collective and individual history, as the history of people of Israel and of the Church show. God watches over each of our lives to the point that, as the Gospel says, “even all the hairs of your head are counted” (Matthew 10:30). The love of the God of Christian revelation is so deep that he gave his only Son for our salvation. Because this is the same God who is the Creator of all things and who loves each of us with unsurpassed love, how can we but conclude that all things are not only linked to the absolute, but also that all of them are relevant to our lives, that there exists a relationship between the mystery of our lives and all things that are visible to us, and that this relationship originates in God?

We might be tempted to think that it is only by faith that we can arrive at this conclusion, because the meaning of things concerning our lives seems to elude us ever more with the endless expansion, diversification, and division of knowledge. In the same way, the unity of all things made by the one Creator seems increasingly to dissolve. And yet, universities throughout the world continue to cultivate, extend, and transmit all this knowledge. Thus we confront a paradox. The largest part of what is being done in universities has no real meaning apart from faith in the God of Jewish and Christian revelation, a faith that most academics do not or no longer possess. Nonetheless, the same academics without faith still seek and teach bits of truth as if they possessed faith, often seek and teach better than their colleagues who are believers.

To study all these created things despite the apparent evidence of their futility, to study them in a way that is justified only if they have not been given to us for nothing and despite the evidence of their apparent irrelevance to our lives, amounts to an act of great faith in God the Creator. They are also acts of praise. Yes, the University was born within the Church as an institution dedicated to praising God for his creation, praise taking the form of ever more careful study of all that is. Insofar as universities cultivate this study and respect their founding principle of scrupulous attention to what is real, they continue to lift up to God a form of praise.

³ Josef Pieper, *Le concept de création: la philosophie négative de saint Thomas d'Aquin*, trans. by Pierre Blanc (Paris: Ad Solem, 2010).

Praising and blessing God for his creation lie at the heart of Jewish piety. Might one perhaps detect here a deep reason for the amazing fruitfulness shown by countless university researchers and professors of Jewish origin? At any rate, it is a fact that nowadays, the Jewish people in all their diversity have become far better servants than Catholics of the eminently catholic institutions that are universities. Even if we see here a manifestation of the mystery of the relationship between the Jewish people and the Church, this reality should also prompt contemporary Catholics to reflect on their lack of faith in God the Creator and their reluctance to lift up similar praise to God.

Mentioning the remarkable fecundity of the countless academics of Jewish origin leads us to recognize an essential double human vocation, shared by the Jewish people and universities: paternity and lineage. Paternity and lineage among Jewish people are cultivated and seen in the context of both family and communities of learning centered on a teaching rabbi. They can be found in universities in the form of the relationship between master and student. It is certainly not without consequence for the University, born within the Church, that in Christian faith, paternity and lineage have their model in God. God himself is Father, as the first person in the Holy Trinity; he is Son as the second person united with the Father by love, which is the Holy Spirit; and this Son taught us to pray by calling God "Our Father." We live in a time of deep crisis for paternity and lineage, a crisis that is closely linked to the rejection of God. Universities remain true to their baptism in the Church when, by maintaining the relationship between master and student, they preserve and perpetuate an image and form of paternity and lineage, the model for which is in God.

In the Church's theology, teaching finds its source in divine paternity, according to Christ's own words: "I have told you everything I have heard from my Father" (John 15:15). Human teaching draws its model from God, because the Word became flesh and because Christ, true man and true God, dedicated most of his activity during his public life to teaching his disciples and the crowds who came to listen to him. The Church, the bride and mystical body of Christ, in fact calls itself a teacher, and over the centuries, countless priests and members of male and female communities have chosen, following Christ's example, to teach rather than to procreate. It is particularly remarkable that today the man whom the Holy Spirit inspired the Church to choose as its universal pastor is a university professor priest.

If it is true that the simple fact that Christ taught is decisive for the University born within the Church, equally decisive is the content of Christ's teaching, as handed down in the Gospels. Because universities exist to seek

truth, what Christ said about truth is surely most decisive for universities. For example, the dream of liberation through study and knowledge that has in recent centuries motivated so many professors of all beliefs and inspired the creation of so many schools: hasn't this been derived, albeit in a reductive sense, from a simple sentence of Christ that continues to resonate in men's hearts: "the truth will set you free?" (John 8:32)

John's Gospel reports another of Christ's declarations, which is certainly the most incredible assertion ever made about truth. Christ declares himself to be "the way and the truth and the life" (John 14:6). How could a particular person at a specific moment in history have said of himself, "I am the truth?" Is it even conceivable that such an assertion has any meaning at all? If so, what meaning? What major shift must the concept of truth have undergone for a person, even God, to have identified himself as the truth?

It is clear that such a formulation will never be fully understood by human beings. It will always challenge us and oblige us to question our limited representations of the truth. But even a very partial understanding of this formulation has major consequences. Thus, Christ's identification of his own person with "the way," "the truth," and "the life" is doubtless alien to two remarkable aspects of the University's intellectual life: first, for all those who call themselves, significantly, "researchers," there is as much and more truth in the search for knowledge—that is, in the way—than in its result, the knowledge established. Secondly, to the precise extent that the search for knowledge is directed towards truth, intellectual life does indeed deserve the title life.

The incredible identification of truth with Christ's person also indicates to academics, who often need to be reminded of this, that their knowledge and intelligence are not everything: if a person is truth, knowledge and study are not the whole truth, and intellectual life is not the whole life.

Born within the Church, the University receives from the Church its proper and legitimate place, which is elevated, but not above everything. Because intelligence, which permits the exercise of reason, is a very valuable gift from God, the sense of possessing it to a high degree may lead to excessive vanity: a vanity all the more prevalent in circles of learning because academic institutions encourage it with a well-organized system of honors. Therefore, academics to avoid losing their way should remember the prayer of thanksgiving that Christ, "full of joy through the Holy Spirit," offered his Father: "I give you praise, Father, Lord of heaven and earth, for although you have hidden these things from the wise and the learned, you have revealed them to the childlike" (Luke 10:21).

As much as and more than others, academics, periodically need to

experience humility, the mother of virtues. This observation leads us to consider the issue of asceticism and, more profoundly, the presence or the absence of Christ's cross in the academic search for knowledge.

I realized that this theme is evoked by at least one great thinker, the French philosopher Simone Weil, who was the younger sister of André Weil, one of the leading mathematicians of the twentieth century. In Simone Weil's work, the unexpected reflection of the mystery of the cross even in the search for knowledge is called the confrontation with contradiction.⁴ Simone Weil sees in the appearance of contradiction in science, and especially in mathematics, the deepest truth emerging from the search for knowledge. In the last part of this paper, I would like to review some aspects of Simone Weil's analysis and add one or two of my own thoughts.

In fact, I am ready to propose the hypothesis that the medieval undertaking of the University, pursued across the centuries to the present day, would have been unthinkable without the knowledge of Christ's cross, that it includes to a certain extent a form of participation in this cross, and that it is sustained by the hope of the Resurrection.

The confrontation with the truth of facts, the obedience to things as they are, and thus the renunciation of one's self and of one's imaginary dreams in order to reach truth are, as I have said, the founding principle and the constituent rule of the University. Any academic researcher, to the extent that they become worthy of the name, has accepted being led by the facts to a place previously neither desired nor imagined. I am intentionally quoting here the words with which the risen Christ warns Peter, prince of the apostles: "someone else will dress you and lead you where you do not want to go" (John 21:18). Peter had professed his love for Christ three times. Researchers launch an attack on the facts; they first attempt to make them fit their preconceived ideas, but the facts resist with hardness greater than a diamond's. The researcher's will, exhausted after such a protracted and vain battle, eventually breaks down. It is only then that the researcher's mind, made a little more receptive to truth by its ordeal, can finally accept bowing down to the facts as they are, allowing himself to be led by them, and letting a more subtle and beautiful truth emerge in him, never yet seen and that does not come from him. This is an experience that any true researcher knows. The University was created over nine centuries ago in order to make it possible, repeatedly and ever more profoundly. For this reason, the University developed generation after generation and still exists today.

The ordeal of contradiction in the face of the real is twofold: it is an ordeal for both the will and the intelligence. Not only do things refuse to bend to our will, they also resist our intelligence at length, only to submit to it but partially

⁴ Please refer to my conference "Simone Weil et la mathématique" given at the Bibliothèque nationale de France on 23 October 2009. The text was published in the December 2010 issue of *Aletheia*, a journal published by the Communauté de Saint Jean. It is available on my website at <http://www.ihes.fr/~lafforgue/textes/SimoneWeilMathematique.pdf>

after immense efforts whose necessity we cannot in retrospect understand. For example, we devote years of difficulty to trying to understand a single item, and when finally a little light is shed on it, we realize that all our previous unsuccessful attempts were too complicated and that things were waiting to be considered in their divine simplicity. We tell ourselves that our intelligence really must be twisted to have remained blind for so long.

The simplicity and splendor of truth can only appear in their radiant beauty after not just years but centuries of effort, pursued from generation to generation. Our past experiences naturally make us believe that some of today's burning questions will only start to be clarified for our intelligence after millennia of academic life. This requires researchers, individually and collectively, who are plunged into the dark night not to give up hope.

There exists a dark night in the search for truth amid knowledge for each problem posed to us, for every area of research, for every science and also for the enterprise of the University as a whole.

To finish, I would like to describe the triple darkness that characterizes the situation of the University after eight or nine centuries of existence: the dark night of the ever denser and more tangled forest of knowledge; the dark night of the impersonality and impassivity of things as knowledge represents them; and the dark night of apparent contradictions among different branches of learning. These nights are all the more fearsome because they touch the purpose of the University and undermine its very foundations.

As I have said before, the University and its universal course of study were based on the belief that all things are linked to the absolute because all things are created by the one true God. And yet, the long history of academic research in different fields has as a corollary the unity of truth and of knowledge of it in the intellectual order. The perception of that unity attended the creation of the medieval University but is lost from sight today. The ever more impressive and burdensome expansion of knowledge has driven different fields of study apart, to the point of shattering the original perception of the unity of knowledge and of truth itself. The principle of unity is fortunately maintained in the contemporary organization of most of the world's universities, with faculties for all the scientific and literary disciplines. Nevertheless, we must recognize that in every university, the various specialized faculties ignore one another. Academics seem at ease with this situation, to the extent that representatives of each discipline would be most displeased to see specialists from other disciplines presuming to insert themselves in another domain. Each faculty appears to be fiercely attached to its own autonomy, which in practice translates into a kind of paradoxical independence in the order of truth.

This should not, however, hide the fact that the fragmentation of knowledge is nothing short of a tragedy for the University and for the researcher individually. Because knowledge apparently no longer has a center, each academic can reasonably feel that they are lost in the dark night and, in fact, do feel this sentiment in the privacy of their own hearts. In their disarray, they can be tempted to resort to different escape routes: for example, they may convince themselves that their own science is at the center of truth, that other sciences are subordinate to it, and that if specialists in these other sciences refuse to recognize it, they are simply being dishonest. Or academics might change the meaning of words and call “basic research” research conducted with no thought for its direct applications and forget that the expression literally means the search for the basis of things, the search for the origin of beings and their essence, in other words a search the possibility of which they despair.

It is, however, impossible to lie completely to oneself. Deep inside, all academics are well aware that they are lost in the dark forest of knowledge. This makes it all the more remarkable that, individually and collectively, many of them do not succumb to despondency but persist in their quest and service of truth, which is sown across the infinite field of knowledge. Thus the tiny flame of hope still burns quietly in their hearts: the hope that one day the forest of knowledge will clear and that truth will appear in the glory of its unity finally revealed.

The dark night of the apparent disappearance of the center of truth is made worse by the darkness of the radical impersonality of things and the total indifference to us they seem to display. The University aspired to study all things as created by the God who loves us with the greatest love and who gave his only Son to save us. And yet, objects of the mind seem to speak only the concrete language of logic and mathematics, and physical objects the language of laws more immutable than all human laws. Since its foundation, the University has studied all things as if searching for so many tangible proofs of their Creator’s infinite love. And yet nothing, ever, can yield such a proof. Might not University born within the Church echo the first words of Psalm 22, which Christ himself repeated on the cross: “My God, my God, why have you forsaken me?...O my God, I cry out by day, and you answer not.”

Let us be honest. How can we believe that the things to the study of which we dedicate our lives, and of which there are billions upon billions upon billions of similar things—these things that don’t need us and for which we apparently have no real need—are created by the same God who loves us with unsurpassable love, a love whose proof is “to lay down one’s life for one’s friends” (John 15:13)?

Let us be still more honest. Would a single academic persist today in

studying these things if they really had no hope that these things are, despite all appearances, there for a purpose, that they are significant, that they are related to truth, to a truth that is life?

The third and final dark night of higher learning is that of the apparent contradictions among different sciences, not to mention the contradictions between knowledge and common sense or between objectivity and sensitivity.

Each science possesses a vision of the world as its starting point and which it details and clarifies in the course of its development. Each science tends to reinforce through ever stronger arguments the vision that gave birth to it, even if that vision must be modified. And yet, the different visions of the world that underlie the development of the various sciences appear to contradict one another. For example, modern physics, inherited from Galileo, Descartes, and Newton, rests on the conviction that “the universe is written in the language of mathematics,” that is, it can be reduced to physical measurements governed by laws that need to be discovered. In other words, the world is reducible to numbers connected by mathematical identities. Again, in other words, it can be represented with a mathematical approach in the form of geometric objects. Several centuries of developing these principles have resulted in a marvelously beautiful theory—extraordinarily confirmed by the measurements which the theory can predict—that no longer distinguishes between space and time. And yet, the lack of a distinction between space and time not only contradicts our most intimate experience of the passage of time, it also would deprive other sciences of any meaning, like biology, not to mention history. In the dark night of reason that consists in the apparently irreducible contradictions among sciences, each with strong arguments to affirm, academics might be greatly tempted to believe that they can escape this night by refusing to see the contradictions or by claiming to resolve them summarily. Thus are representatives of one or another science tempted to believe that other sciences, and even our own senses, are riddled with illusions, which only their own science can escape.

This pattern repeats itself particularly in the tragic relationship, or absence of relationship, between science and the content of revelation. Let it be said again, the University is a catholic undertaking. It is based on the knowledge that is given in the revelation. But progress in the various sciences has not brought proof of the truth of revelation. For many, it has even robbed it of its credibility. What is most conclusive is not that the content of certain sciences has apparently contradicted certain elements of revelation. It is rather that the content of these sciences appears to be further and further removed from the revelation, that the sciences have given the impression of having nothing to do with it. The centuries-long study of science has guided the formation of new cultural types,

different from the type of believers. Scientists and believers have almost become two distinct humanities, each afraid of the other, as if it were the image of its own dark night.

Great was the temptation for the catholic undertaking that is the University to think it might escape its dark night by losing its faith. And most academics did in fact lose their faith. But if faith were vain, the University would no longer have any meaning. And if faith were totally lost, there would no longer be any universities.

Great also was the temptation for believers to abandon the University, to dissociate themselves from science in the name of faith. But how much is faith worth when it refuses the dark night?

It is not in our power to escape the dark night by our own strength. To believe so would be to lie to ourselves. We are only asked to remain faithful to truth and to search for it in our dark nights, to love truth and to serve it.