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Abstract. I approach the question of human fascination for, and the inspiration of, astronomical phenomena, based in the concept of elementary experience developed in the work of Luigi Giussani. I follow Giussani's ideas in some detail and argue that man's attraction for the world around him is rooted in the most fundamental experience of wonder before the 'otherliness' of reality. In the process of discovery and confrontation with something that is 'other', a dynamic is set out in which man's reason is provoked and inspired to question and to create. To emphasize man's personal experience of wonder before the skies and its cultural impact, the discussion is guided by several extracts from the literature and arts.

1. The Inspiration of Astronomical Phenomena

I remember very clearly of my first trip, a few years ago, to the observatory where I was to take the data for my Ph.D. thesis. The winter nights in the Namibian desert are cold and dark, with no trace of artificial lights from civilization for a radius of over 100 km. In the second night of observations the skies were particularly clear and at a certain point I decided to leave the control room, where the eyes are substituted by the more specialised computer screens and artificial detectors, to see for myself the object of my studies. Upon leaving the room into the dark plain that surrounded the building, and after the few minutes necessary for the retina to adapt to the change in brightness, I was surprised at myself being able to easily walk across the fields in that moonless night, shining bright with starlight. Above my head, the firmament, dominated by the long, thick arch of the Milky Way, like a giant bridge or a pathway, was densely dotted with stars, from Zenith to the most distant horizon in every direction. It was the first time I had seen the sky far away from the city, in a desert, and that image was so splendid and unexpected, that it touched deep inside me, and I remained there, both scared and glad, in

^{*} Extract from *Night-Song of a Wandering Shepherd of Asia*, G. Leopardi, Canti, XXIII, free translation.

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contemplation. The spectacle I witnessed that night was of such abundance, almost 'excessive', but at the same time, for its great beauty, so gentle and full of meaning. It reached me with the force of an announcement, as if its grandiosity, uncontainable and seemingly unjustifiable on itself, suggested a certain benevolence that the Universe had towards me, inviting the mind to reach beyond it, into some unknown of which that embroidered cloth acted both as a sign and a veil.

I wanted to start this brief intervention with a personal account, in order to illustrate the dynamics which I will try to describe here and which I identify with the 'inspiration' that is the subject of this meeting. In fact, uncountable men from all places and times have confessed to this same experience, and few aspects of the natural world can spark it off as effectively as the sight of the night sky. Despite that, it is nowadays increasingly difficult to find those who give to it the attention and relevance that it merits, either because it is taken for granted or because this wonder is regarded as a more or less capricious attitude, with little objectivity attached to it. On the contrary, I wish to underline it here, using the testimony of a few of the greatest exponents of our cultural and scientific world, that this 'inspiration' not only is fundamental for the development of human knowledge but also guards a unique testimony of man's most fundamental structure.

In this contribution I will make an attempt to describe what is the nature of this inspiration and its dynamics, following the approach of the Italian thinker, Luigi Giussani, who extensively wrote on the subject.¹ But to do so, it is first necessary to clarify in what sense can one speak of 'inspiration' on the context proposed by the INSAP Conference. Certainly it is not the kind of inspiration of an artistic, literary or scientific genius who in the course of his work has an idea and puts it into practice; it is rather the inspiration of the 'human genius', which finds its origin in the *entire* person's reaction before reality. In this sense I think one can speak of 'inspiration' in two ways which are closely connected but somehow diametrically opposed in regard to the subject –they could be formulated as two different questions: 'Inspiration *to* what?' and 'Inspired *by* what?'.

2. Inspiration to Create

'Inspiration to what?' The first formulation of the question, which is

¹ An introduction to the works of Luigi Giussani in English language can be found in *A generative thought. An introduction to the works of Luigi Giussani*, E. Buzzi (ed.), McGill's, 2004.

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extensively exemplified by innumerable works of art and literature, is of a cultural character. Of the specialness of the inspiration motivated by the night sky, van Gogh, author of some of the most celebrated nocturnal scenes of modern art, spoke very prominently. In the letters to his brother he repeatedly manifested his preference for it and the very personal impression they had on him: 'A night scene is imbued with a dramatic quality... a je ne sais quoi... which expresses that moment and that place in nature where one can go alone, without company.² This 'inspiration' always speaks to the *totality* of the person, and never only to a particular, technical curiosity, and it has the effect of an attraction, it starts in the person a desire to better understand it. In another letter, for example, he continues: 'The sight of the stars make me dream '[...] Why, I say to myself, should the spots of light in the firmament be less accessible to us than the black spots on the map of France?'.³ Likewise, the great French master Francois Millet shared with his admirer similar feelings about the skies, and in his words it becomes clear that this awe produces inside him a desire to create, as a way of taking possession and being closer to the beauty he finds in it:

How beautiful the night is! There are times when I hurry out of doors at nightfall and I always come back in overwhelmed. The calm and the grandeur of it are so awesome that I find I feel actually afraid, and I always dream of making a painting like that.⁴

The kind of experiences described above attest to an aesthetic correspondence between the phenomenon and the expectations of the individual that cannot but set him in motion, inspiring him to create in order to participate in the event he witnesses. Furthermore, artists like the ones cited testify to a positivity and a joy about their encounter with the natural world, as if through it they had been granted response to a great and long-standing expectation that *a priori* inhabited them.

To the human genius, the sentiment motivated by this impact in

² van Gogh's letter 363/299, quoted in 'Van Gogh and the Colours of the Night', S. van Heugten, J. Pissarro and C. Stolwijk (eds.) (New York: The Museum of Modern Art, 2008), p. 23.

³ Ed. Ronald de Leeuw and trans. Arnold Pomerans, *The Letters of Vincent van Gogh* (London: Penguin Classics 1996), Letter 642/506.

⁴ Quoted in R. Olsen, *Fire and Ice: A History of comets in art* (Washington D.C.: National Air and Space Museum, Smithsonian Institution, 1985), p. 89.

front of the great scenes of the natural world, its perceived value is so great that it creates a desire of communion with the object and a necessity of preserving the memory of the original moment, because he recognises that in that reality there exists something which regards him. And it is precisely this intent which serves as a driver for the entire creative process that springs forth from the inspiration. By means of his own work, the artist wishes to give a concrete form to the experience he had in order to give it continuity, so as to grasp that *je ne sais quoi*, that intuition of an approachable truth about the world and himself that had caught his attention in the first place. Chesterton, in his unique style, expressed this when he said that the whole aim of poetry and the arts 'is to keep awake that sense of something saved from nothing'.⁵

It is also in this sense that Giussani speaks of *culture* as resulting from 'the perception of something that reveals [to us] that point towards which are directed all our actions and according to which they are ultimately mobilised'.⁶ That is to say, this 'inspiration' is the event of a novelty, the individual's perception of reality as being 'in relation' to him and his own preexisting intellectual quest, and which for this reason generates an original mode of expression in the person. Notwithstanding the presence of the basic inquisitive faculties and curiosity necessary for creativity, without that perception (or inspiration) of which Giussani speaks, these qualities remain alive in the person just as a tension, a set course, which is not fully consciously noted by him nor properly activated. To the first question, 'Inspiration to what?', we arrive therefore at the conclusion that this 'inspiration' is the fundamental factor allowing the development of creativity and of *culture* in the broad sense of the word, understood as the concrete expression of one's personality in relation to all aspects of the world around him.

3. Inspired by a Presence

The second formulation to the question about the inspiration of astronomical phenomena, of which I want to talk in some more detail, is: 'Inspired *by* what?'. In other words, what is the nature and where is hosted this most elementary level of man's perception of reality, whose

http://www.crossroadsculturalcenter.org/storage/transcripts/2010-12-16-Chesterton%20and%20Eliot.pdf.

⁵ Quoted in I. Boyd, C.S.B. and D. Quinn, *Chesterton and Eliot: Prophets of our times*, Crossroads Cultural Center, at

⁶ Luigi Giussani, *Uomini Senza Patria* (BUR, 2008), p. 21.

dynamics impel him to work and create? What is at the root of the sympathy and attachment that reason develops before certain aspects of reality that motivates and sustains the expression of the individual?

In his book *The Religious Sense*, Giussani describes in the following way the source of man's creative efforts, be them either of a scientific character or any other form of intellectual endeavour:

It is the prime evidence of an amazement with which the attitude of the researcher is charged; the marvel of the presence attracts me, it so to speak sparks off the research in me.⁷

With these words Giussani proposes that it is an initial fascination - 'the prime evidence of an amazement' - that attracts man's reason and works as a catalyser, establishing a solid bridge in his rapport with reality. It is important to underline here two things: first, that the primal element in this process is not a *proposal* of the subject or an active and carefully thought a priori intellectual program (which as we have seen in the previous section is not concretely realisable per se), but that the originality of the phenomenon lies in a *recognition*, in the passive noting of the presence of things. The second point is that, before any special quality, it is the 'otherliness' of reality and the evidence of its existence independently from the subject that is the supremely original and truly unpredictable, unexpected event that seduces man's curiosity. As we will see, it is the existence of the other which is the fundamental event capable of arousing in the person the conscience of his structural longing and which allows a lasting reflexive position of the person in front of reality to develop. Without the latter, whatever thing reality proposed or suggested to the person would remain abstract (because not directly related to the person), whereas reason requires reality to be a potential instrument in the inquisitive process for it to be attractive. In other words, reality needs to be *correspondent* - from the Latin 'to respond together' so that the person can see in it the possibility of arriving somewhere beyond him. Let's see how Giussani describes the person's recognition and valuation of this 'otherliness.'

> If I opened my eyes for the first time at this moment, coming out of the womb of my mother, I would be dominated for the wonder and the fascination of things, as if in front of a

⁷ Luigi Giussani, *The Religious Sense* (Kingston: McGill-Queen's University Press, 1997), p. 102.

presence. I would be dominated by the amazed reaction in front of things [..] not as an abstract entity but as a presence that is not made by myself, but that I encounter and that imposes itself to me [...] The wonder before this reality, this *presence* which takes hold of me, is at the origin of the awakening of the human consciousness. [...] For this reason, the very first sentiment of man is that of being in front of a reality that is not 'his', that exists independently of him and of which he depends. Empirically translated, it is the original perception of a *datum*.⁸

The great nuclear physicist, Enrico Fermi, gives a poetic description of this same original experience; in it he emphasises not only its common character to all men, but more importantly its ontological relevance, which is what ultimately concerns us here. In his *memoirs*, he writes:

[...] one night, while I was waiting for sleep to come, sitting on the grass in a field, I heard the relaxed conversation of some country people nearby [...]the serious voice of a large countryman, coarse in appearance, who was lying on the grass with his eyes directed to the stars and exclaimed: 'How beautiful it is! And yet there are those who say that God does not exist.' This phrase of the old countryman in that place at that time, after months of arid study, so touched my mind that I remember the scene as if it were yesterday. A great Hebrew prophet remarked three thousand years ago, 'The heavens declare the glory of God.' One of the most famous philosophers of modern times [Immanuel Kant] wrote, 'Two things fill my heart with admiration and reverence, the starry sky above me and the moral law in my heart.' That Umbrian countryman did not even know how to read. But in him, guarded by a simple and laborious life, there was a small corner in which the light of the Mystery descended with a power not so inferior to that of the prophets and perhaps superior to that of the philosophers.⁹

So, in what does this 'small corner' that Fermi talks about, and which

⁸ Giussani, *Religious Sense*, p. 100.

⁹ Enrico Fermi, *Ricordi Personalli*, 'Reponsabilita del sapere' 31 (1979), 21-23, quoted in Marco Bersanelli & Mario Gargantini, *From Galileo to Gell-Mann: The wonder that inspired the greatest scientists of all times, in their own words* (West Conshohocken: Templeton Press, 2009), p. 165.

houses the source of the inspiration we seek to grasp, consist? It is this that we can find the answer about the nature of our inspiration. To do so, Giussani procures to understand what are the complex of feelings that are at the same time the receptors and agents of this inspiration and what is the fundamental structure existing within men that allows for it, which he calls *elementary experience*.

4. Elementary experience

At the root of the dynamics that exists in the encounter of the human reason with reality such as we have described, there is the fact that man, by its very nature, carries a longing, that is, has a need for answers (of the most varied kinds) but is incapable to provide himself with them. In particular, all his questions carry implied in them what one would call 'ultimate questions', which are those that have to do with his own existence and the origin of things. As for all things of the world, man's existence is totally contingent: it depends on something else rather than him. But man is singular among the things in the sense that he is *aware* of this condition - as Carl Sagan said in the beginning of his famous series Cosmos: man is the point where the Universe became conscious of itself. Science and technology can grant us with ever growing powers to better control our lives and, to a certain extent, our destinies, but it is a primordial and undeniable evidence that no man can give himself to him and this constitutes a fundamental limit to the course of reason. His very being is marked by a fundamental question to which, like a mystery, he can provide no exhaustive answer. Immanuel Kant formulates the problem like this:

Human reason has this particular destiny: it finds itself oppressed by questions that it cannot put aside, for they are imposed by the very nature of reason; but it has equally no conditions to answer to them, because they surpass all the power of human reason itself.¹⁰

The nature and quality of these questions are so fundamental that one could think of describing man, in its innermost structure, as need, as a nostalgia, such as that expressed in the dramatic question posed by Par Lagerkvist, the Swedish Nobel Laureate for literature: 'Who are you who

¹⁰ Immanuel Kant, Preface to *Critique of Pure Reason* (Cambridge: Cambridge University Press, 1999), p. xi.

fill my heart with your absence? Who fill the whole world with your absence?'¹¹ Such demands man cannot subtract from himself without definitively compromising the inquisitive journey of his reason and therefore his own possibilities of fulfillment. According to Giussani, it is these most basal aspects of man's nature, these 'fundamental needs', which he defines in the concept of *elementary experience*, that act as the original motor of all actions and that are required for man to establish a creative relationship with reality and his own self.

In what consists this original, *elementary experience*? It can be described as a complex of needs and evidences which accompany us as we come face to face with all that exists. Nature thrusts man into a universal comparison with himself, with others, with things, and furnishes him with a complex of needs and evidences which are the tools for that encounter. So original are these needs or these evidences that everything man does or says depends on them. [...] they are like a spark igniting the human motor; before them there is no movement, no human dynamics.¹²

This perspective put forth by Giussani is indeed fascinating. For one in this position, that is, one who is determined by a demand of which he holds the indelible mark, like an original tension, but not the response, the encounter with something that is completely and originally independent of him, rather than being regarded as irrelevant or counterproductive, comes indeed as the most fruitful possibility of an answer, hence its attractiveness.

For this reason, I'd say that there exists in this encounter an intrinsically positive tone, and even a certain 'charitable' quality about the *datum* of reality, since, for the inquisitive man, it is motive of hope. Therefore, this encounter becomes the source of a genuine inspiration inasmuch as it becomes, first of all, the source of an affection that draws him into a boundless investigation of the nature reality, sign of a complete attraction that the subject develops for the object because of the profound value he (more or less unexpectedly) finds in it. For example, it was

¹¹ Par Lagerkvist, *Poems* (Lewes: Allardyce Barnett Publishers, 1972), quoted in Giussani, *Religious Sense*, p. 12; reprinted from *Communio*, vol. XXV (1), Spring 1998.

¹² Giussani, *Religious Sense*, p. 7.

Millet and van Gogh's clearly testified 'affection' for the beauty of the night sky, a sight which corresponded to their most intimate longing for beauty and harmony, that aroused their will to paint it as a means of advancing deeper in their quest for knowledge of the world and their own selves. This moment, in which the original wonder becomes a true 'inspiration', that is, desire transformed into motion, creation, is identified by Giussani with precision in the following passage:

[...] that which I called *elementary experience* is something that tends to indicate, in a finished way, the original impetus with which man puts himself in reality, looking to identify himself with it by means of the development of a project that imprints on reality itself the ideal image that had originally stimulated him.¹³

With this affirmative, Giusanni proposes a strict connection between knowledge (or the possibility of knowledge) and the *elementary experience*.

5. 'Only Wonder Knows'.

A great Italian poet of the XIX century, Giacomo Leopardi, created a symbol of this experience on the figure of the 'wandering shepherd', which is perhaps one of the best poetic expressions of the inspiration and the consequent dynamics of this *elementary experience*. In his poetry, Leopardi paid great attention to this fundamental level of the human experience, and for him the great and beautiful things of the world, such as the night sky or the sentiment of love, were like a portico inviting into a place beyond his own limitations. In particular, Leopardi saw the science of astronomy as being specially capable of such task, as he wrote, in the opening sentence of his '*History of Astronomy*': 'The most sublime, the noblest among the physical sciences is, without any doubts, Astronomy. Through it man rises beyond himself [...]¹¹⁴ It is no surprise, therefore, that the subject of the night sky should often appear in his works.

In Leopardi's famous poem, the wandering shepherd turns himself to the moon, companion to his daily cycles and, filled of marvel before the beautiful night and its eternal movements, speaks to her - to

¹³ Giussani, *Religious Sense*, p. 9.

¹⁴ Giacomo Leopardi, *Storia dell'astronomia dalla sua origine fino all'anno MDCCCXIII* (Ed. la Vita Felice, 1997), p. xvi.

whom 'A thousand things their secrets yield/ That from the simple shepherd are concealed' – of his 'anxious thoughts', akin to the emptiness of Lagerkvist, which oppress him during his rest:

[...] Oft as I gaze at thee, In silence resting o'er the desert plain, Which in the distance borders on the sky, Or following me, as I, by slow degrees, My flocks before me drive; And when I gaze upon the stars at night, In thought I ask myself, 'Why all these torches bright? What mean these depths of air, This vast, this silent sky, This nightly solitude? And what am I?' Thus to myself I talk...¹⁵

In these few lines Leopardi describes with unparalleled beauty, originality and simplicity the mechanism of the *elementary experience*, in which the recognition of an external reality becomes for man a recall of his own self, and in which the inscrutable mystery of the world is for him a mirror of his own ultimate mystery.

In conclusion, we have said that this inspiration man has before certain special phenomena of reality is always an inspiration to *create*, to imprint in the world the personal mark of the experience which consists the original motivation and thus point to the fundamental goal of his quest. That is why at the horizon of man's cultural expression we find, not an arbitrary act of self-affirmation, but the testimony to the wonder before a fact, an event which introduced the person into a credible path of knowledge, something which the person affirms as fundamentally *true*. This had already been noted long ago by Gregor of Nyssa when he affirmed that 'only wonder knows', and accordingly, that the point of arrival of this knowledge is an 'adoration', the position one assumes in front of a good he finds but cannot produce himself and that to some extent (even if aesthetically only) can save him.

We have also said that this inspiration, which is the main driver

¹⁵ Giacomo Leopardi, 'Night-Song of the Wandering Shepherd of Asia,' in *Canti: the Poems of Leopardi*, trans. Jonathan Galassi (London: Penguin Classics, 2010), p. 102.

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of man's creativity, guards the evidence of a *correspondence*, of an accordant dialogue which exists between man's inborn questions and the world. The existence of such accord can be mysterious and surprising, but is not casual. In fact it is the phenomenon which reveals, better than anything else, the fundamental nature of both man and reality and their intimate connection. This connection, which one could compare to a 'brotherhood' when arguing about the contingency of both, and which is in the end the reason of our 'inspiration', is signed with a perennial tone by Pirandello when he says: 'how is it possible that the question should not arise, if the earth is forever surrounded by the sky?'¹⁶

¹⁶Luigi Pirandello, L'umorismo e altri saggi (Milano: Giunti Editori, 1994), p. 254.