Two Moons?

MARTIN WAGENSCHEIN

The following essay is a condensed version of a longer essay that can be viewed at <u>natureinstitute.org/txt/mw/twomoons_full.htm</u>

When, in 1968, American astronauts orbited the moon, they were the first human beings to see its crater-filled landscape with the naked eye. They neither gazed through the lenses of a telescope nor looked at a camera-mediated photograph. There was nothing between them and the moon; they saw it up close as soaring birds would see it, if such could exist there.

Back home on firm ground and encircled by reporters, one of the astronauts remarked: "The moon is a cold and lifeless world of black and white and grey ... I would like to know how all those poets and composers came to say so many romantic things about it."¹

Even people who hadn't been up there were disturbed: "Generations of poets—from Li Tai Pe to Eichendorff—who drank to the moon as to a good friend, who praised the moon's mild glow and silent coursing ... all of them were wrong."²

"Wrong.? What, then, did the poets say? Did they want to report on what it looks like up there? How come the people quoted above no longer trust themselves? Why do they deny what previously touched them on a moonlit night? That is nothing other than what the poets want to express. Is this all only fantasy?

"Sing a whispering lullaby, learned from the moon who so softly moves across the sky" (Brentano). "Softly" she wanders, but how powerfully the moon affects us: in the period of her monthly rhythm she moves a woman's blood and those who dwell on coasts endure the ocean's tides with the moon's waxing and waning. "When the moon ascends, the waters rush over the earth and my heart feels itself as an endless island" (Lorca). Disquiet overcomes the ill at full moon and drives sleepwalkers onto rooftops. She blesses lovers: "As often as the moon shines I, alone, think of you" (Brentano). And she rescues those torn asunder: "When you softly bring valley fog aglow, you release my soul once and for all" (Goethe). The moon always concerns us.

But we need no poems to tell us what we all know from common experience. Isn't the moon the master of moods? Never the same, like we ourselves. She is as unpredictable as the day. When we step out of the house in the morning, we look for the moon to see if she is guarding us. We wonder how she is doing and how she finds us, an exchange of greetings with the heavenly. She answers to our questioning gaze, even scrutinizes us, encouraging or objecting. The moon is still there. She may notice us briefly, but in the next instance she is back in her own sphere again, aloof and deeply occupied with the world of the clouds, immersed in the sea of stars.

Do we take such experiences seriously and give them credence? Long before there was space travel, we had our reservations, thinking: "These feelings about the moon are all very well, but they're not true, they are nothing but romantic fantasies, figments of the imagination, fabrications, subjective." But wait a moment: subjective—when it is a shared experience? Fabrication—when it "comes over us?"

In the novel *Homo Faber*³, the protagonist, who is an engineer, rigorously rejects any experience of this kind. After an emergency landing in a Mexican desert, he watches the moon. For his companion, the way the moon floats over the nocturnal sky is an impressive spectacle. But Homo Faber doesn't let that experience in; he objects; he is matter of fact and holds to "reality." Moods don't exist for him. He says to himself, "I'm an engineer and I'm used to seeing things the way they are. I see the moon over the desert, and I grant that it might look clearer than ever. It is a recognizable mass, circling around our planet due to gravitational pull. But in what way is it an 'experience'?"

He, too, is enchanted, but in his case by the moon of physics. His reaction is understandable to anyone who has thought through the steps it took to find the law of gravity and the concept of gravitational pull. But even so: why does Homo Faber no longer trust his own immediate experience as he stands there in the wilderness? It wouldn't be hard for him to reply: your moon has no validity. It doesn't sit in a tree, nor does it produce a tone or wander in the heavens. And there are no heavens either; what we really see when we look out in the sky is deep, endless space. We have known this for several hundred years now. The moon of the poets is a complete deception, even though it may be a deception we welcome. The moon doesn't recognize us, knows nothing of us, cannot know anything, cannot care. Because it is nothing other than a dead ball of stone, cliffs, and dust.

Asked seriously which one of the two moons is the real one, most educated people would probably choose the physical moon, even though perhaps we would be embarrassed and hesitate to answer at first. We probably opt for the scientific moon because of the exactness of the data we have, such as distance, radius, orbit around the earth, and mass. Anyone with access to a good teacher will be able to check whether these facts are correct. We are dealing with exact objectivity here, there are no "ifs" and "buts." Here we have a kind of precision that-once understooddelights anyone who loves clear statements. We know where we stand. We have landed in a place that gives us firm ground under our feet. But is it therefore the whole story?

Physics hasn't always existed. In its early days, it did not have power and wasn't received with sympathy either. One of the first men to pursue physics was the Greek Anaxagoras, about 25 centuries ago. When he had the cheek to declare that the sun was "nothing but" a fiery, glowing metal clump, people didn't want to hear about it. For that reason he had to leave the city of Athens, because he was one "who sinned against the gods." Today the reverse is true. If you would declare Anaxagoras' pronouncement false, you would expose yourself to public ridicule.

How might he have arrived at his opinion, which was seen as heretical then, but is now the predominant view? Maybe he was the first, or among the first, to think in a way that comes so naturally to us today: I don't want to ask now what the moon or the sun is to me (or to other people who are "in the mood" of the night). I want to know what the moon is "in itself," not for us people, but "as such." Therefore I have to put myself and all other people aside and also disregard what the moon in such a way that there can be no argument about it, and you can't argue with measurement and number in space and time.

So people began to measure the moon, which isn't all that difficult to do. One can calculate the moon's distance from the earth and its orbit and determine whether it moves in front of or behind the stars or is closer than the sun or further away. Everyone can follow the thinking behind this and confirm the data personally. Everything fits nicely: thirty earths would fill the distance between earth and moon. The moon circles around us every month and travels one kilometer per second more or less. It is much closer than the sun, around 400 times, and both are immeasurably closer than the stars (except for a handful of planets). All this "fits." Therefore we have the feeling: now we know what the moon is "for real," not for ourselves, but in and of itself.

One must consider twice the last sentence in order to feel a slight nudge from an obstacle that

our thinking has so easily passed by. In dealing with such nudges it is always good to look at the words we use in often thoughtless ways: What does "real" mean? What do we mean by "in and of itself" or by "nothing but?" And foremost, the riddle-filled expression "there is" (such as when we say: there is only *one* moon!).

But can we really want to know what the moon is "in and of itself.? That is, not for us, but without us? Can a human being switch off the human being? Isn't measuring and calculating in space and time *also our* capacity? And to limit ourselves to that capacity: isn't that a choice, a *decision* we make ourselves?

Therefore it makes no sense to even *ask* what the moon (or any other thing) is "in and of itself." We always partake, we are always involved. Granted, we are not always in the same frame of mind.

When we speak about the moon physically (astronomically), only according to measure and number, part of us clearly does not participate. We are not "fully there," because, after all, we are not only measuring beings. When we measure, we restrict ourselves and disregard all the rest. Of course it can happen that, when we are doing measurements, say, of the crescent moon, we stray afield. Without wanting to do so, we might suddenly see the moon as a smile. We then reject that experience since we're caught up in a measuring mode and want to be. Our unprejudiced gaze, however (and the poet in us would agree), is not caught in this way: it somehow fits, that smile. A kind of mood broke in upon us.

We might venture to say that approaching things from the physical point of view is also a mood. We could call it a very sober, factual and cool state of mind. What it brings forth is "right." Therefore the astronauts could confirm it. All the while, what they confirm is only distance, size (curvature), gravity.

The astronauts can't reproach the poets for the fact that they only found a wasteland up there. Even if they had landed in a garden full of

flowers: the poets never meant the moon—out there—the way it would look up close.

The poets talk about the moon in the firmament the way it presents itself to us from down here when we are completely without prejudice, when we do not limit ourselves and do not exclude anything from consideration. Then the moon presents itself not as a heavenly "body," but as a luminous form. (Kepler could still call it a "creature.")

No rocket, no visiting astronauts can affect the moon of the poets. Their reports cannot touch it, cannot harm it.... The poet is far from wanting to see the moon up close. Neither would anyone desire to see the face of a friend from a finger's width distance or through a magnifying glass. It is something you just don't do. We would only let a physician come that close.

When the astronaut didn't understand the poet anymore, he was subject to the prejudice that only things forcefully brought up close give us true reality. But when we are looking at the moon as a friend ... it isn't proper to get too close. The poet doesn't look at the moon as an object. He looks at the moon physiognomically, as one would look at a countenance that "looks back at us," a countenance belonging to the sky with its clouds and stars.

However, if we look at the moon in a spatial, physical or astronomical way, we have no qualms about ripping her out of the physiognomic context in which she belongs. Then the countenance dissolves. The same thing happens when we come too close to a person. A face is a countenance only from a certain distance. When we come too close, the charm is gone.

If you really *want* to have a "one and only true" moon, you have to, by means of an authoritarian inner decision, arbitrarily suppress one viewpoint with the other. That amounts to "appointing" one viewpoint and such a declaration cannot be binding for anyone else. If you choose the moon of the poets, you will be blind to the physical side of reality and close yourself off from understanding modern science and technology. If, like our engineer, you choose the moon of physics (which in reality he hardly achieves), you will find your power of observation wilting as you surrender yourself to the frame of mind, even as you gain the empowerment through it. But then again: why should the more powerful approach be the one that alone allows us to grasp the truth? This belief (superstition) is clearly not an insight but a choice, even though it is an obvious one for our time. It is a decision to rest content with a way of understanding things that gives us power over nature but it also remains silent about so much else. To be sure, a limited conception can lead to big successes, but they are one-sided and therefore harbor dangers that often only manifest later. In our time, those dangers have become obvious enough.

In our schools there are two moons, which appear in different classrooms. The one is hard and naked, the other soft and veiled, and they are introduced by two different subject teachers. There is no discussion about the relationship between the one moon and the other. Where will one find a teacher of literature, who discusses a poem about the moon and also has the splendor of the Newtonian moon calculations in mind (in which the quiet, luminous wanderer of the constellations is not revealed but reduced to the relentlessly fast and constantly moving ball of rock)?

Our textbooks, presumptuous as they are, tend to speak of the "apparent" vault of the heavens and the "apparent" movement of the planets. ⁴ It is obvious what they mean. But for the child that word "apparent" negates realities that physics, the Copernican system, astronomy, and photographs taken by astronauts in fact cannot touch.⁵ What the vault of the heavens can tell us isn't just an appearance. At one moment it speaks to us as sky with wild clouds obscuring the moon, at another as the high sky of summer. When we perceive this way, we are simply not in the mode of physics.

A child should never have a bad conscience

in school when she "still" sees the moon traveling the span of sky as the friend of the clouds or of herself, bewildered as she might be by learned pronouncements that such things would be "just appearance." There shouldn't be a trace of that feeling, not even subconsciously. Suppose a child follows astronomical conclusions and demonstrations of astronauts, but is lucky enough that she cannot resist opening herself to experiences, intimations, or poems in which the moon is not experienced as a sphere with mass m, or the earth as a ball. Such a child should never feel split in two. Let us help children understand that they don't live in a world of illusions in more poetical moments, but rather in a fuller and less restricted reality than the one the onlooker consciousness reveals, indirectly experienced through instruments or transmitted by astronomical calculations or reports from astronauts. The original reality thus gained may not be "objective," but it is also not strictly private, because it always allows us to build connections between our separate selves and even to communicate such experiences to others by means of art. It is that reality which makes it possible for us to say: "here," on the "earth under the canopy of the sky," we are "at home." For this particular "here" there are no coordinates, and for this being "at home," there is a duration that cannot be clocked. "Earth" and "sky" are not limited by the measuring intellect here but are being taken in by soul organs in the fullest possible way. And so we do not distance ourselves from things, but identify ourselves with them. This creates the kind of approach, or rather connection, which is as *real* as any you could wish to have. A person who has no knowledge of astronomy may be poor in terms of science, but can feel at home and be happier and more mature than someone who "knows" the wrong way: confused, disconnected, split. But if you know that there are limits to the knowledge gained in physics or astronomy, you do not need to lose any shelter and can gain much wonder.

<u>Notes</u>

1. This quote is from astronaut James Lovell, who spoke at a press conference in December of 1968, soon after he had returned from orbiting the moon. [The translators were unable to find the original quotation.]

2. Bach, Werner (1969). "Wie farbig ist das All?" *Retina*, vol.1, pp. 24–28; quote on p. 28.

3. Frisch, Max (1977). *Homo Faber*. Frankfurt: Suhrkamp, p. 23 (italics added). [Translator's note: the English translation by Michael Bullock bears the same title. "Homo faber" means "man the maker."]

4. The following lightly revised passage has been taken from my [Martin Wagenschein's] essay "Die Erfahrungen des Erdballs," published in *Ursprüngliches Verstehen und Exaktes Denken*, Bd. II. Stuttgart: Klett, 1970, pp. 55 ff.

5. Compare Rumpf, Horst (1979). "Inoffizielle Weltversionen: über die subjektive Bedeutung von Lehrinhalten," *Zeitschrift für Pädagogik*, vol.2, p. 209.

 $\sim \sim \sim$

Martin Wagenschein wrote the essay "Die beiden Monde" in 1979; it was published in the journal *Scheidewege*, 1979, vol. 9 (4), pp. 463-475. This translation has been approved by the Wagenschein literary heirs and is based on the text that is available online at the Wagenschein archive: http://www.martin-wagenschein.de/Archiv/ W-209.htm. Translation by Jan Kees Saltet and Craig Holdrege; this condensation of the complete essay was done by Craig Holdrege and appeared in *In Context* (#18, Fall 2007, pp. 14–17). You can read the complete essay at: <u>natureinstitute.org/txt/</u> mw/twomoons full.htm

Copyright 2007/2018 The Nature Institute