What Can the Global Observer Know?

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Introduction

In this well known picture1

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line B seems much longer than the line A, but then we realize that we are wrong – the length of the lines is exactly the same. We have all seen optical effects many times in our lives and each time we would discover that it was just an illusion. But the inertia of perception cannot be helped – if something seems to be obvious, we easily accept it without an analysis. It takes more reasoning for an illusion to be dispelled. And the task I have set for myself is of this kind.

1 | The Baldwin Illusion (Baldwin 2000: 247).

All cats are grey in the dark, but in complete darkness, they are not even grey”

Martin Gardner (2009)

> Context • The detection of objective reality, truth, and lies are still heated topics in epistemology. When discussing these topics, philosophers often resort to certain thought experiments, engaging an important concept that can be broadly identified as “the global observer.” It relates to Putnam’s God’s Eye, Davidson’s Omniscient Interpreter, and the ultimate observer in quantum physics, among others. > Problem • The article explores the notion of the global observer as the guarantor of the determinability and configuration of events in the world. It analyzes the consistency of the notion “global observer” from the standpoint of logic and philosophy, and discusses why application of this notion in some contexts poses challenges and appears to be paradoxical. > Method • The paper uses conceptual methods of argumentation, such as logical (deduction) and philosophical (phenomenology) kinds of proof. Its key approach is the engagement of thought experiments. > Results • The notion of a global observer is incoherent: “being global” and “being an observer” appear to be incompatible features. It is claimed that from the standpoint of global observation, there are no events occurring in the world. Furthermore, the indefiniteness of the world as a whole is asserted, which is related to the uniformedness of the global observer regarding the “true state of affairs.” “Global observation” turns out to be incompatible with the concept of the observer, blocking, as a result, the opportunity for a determinable configuration of events. It only makes sense to discuss local observations, which are limited to mutual observation or introspections, and not to assume the existence of some absolute truth, reality, or the state of affairs beyond the local observations. > Constructivist content • The article emphasizes the role of the observer and observation. It opens up some problematic consequences of the core philosophical assumptions of globally observing existence. Referring to von Foerster’s and Luhmann’s idea that we can only speak reasonably about local observations, the paper argues that reality is neither external to nor independent of the observer. > Implications • The paper could be productive for epistemic theories, theories of quantum physics, and theories of non-classical logic. > Key words • Global observer, ultimate observer, omniscient observer, ideal observer, omniscient interpreter, local observer, limited observer, event, truth.

http://www.univie.ac.at/constructivism/journal/no2/227/gasparyan
As Donald Davidson says, comprehensively false about the actual world (Ward 1989; Brueckner 1999; Manning 1995; Goldberg 2003). He appeals to the intelligibility of an omniscient interpreter in order to undercut the traditional skeptical contention that human beings may have a coherent system of beliefs that are comprehensively false about the actual world (Ward 1989). As Donald Davidson says:

This argument against the skeptic lies at the center of Davidson’s claim that using the coherence of beliefs (sentences held true) as a test of truth allows us to “be really and philosophically on the right track” (Davidson 1977: 201). Specifically, Davidson contends that with the acceptance of coherence as a test of truth:

Therefore the goal of the omniscient interpreter argument is to link the coherence of beliefs with knowledge of “an objective public world which is not of our own making” (Genova 1999: 38).

It is noteworthy that scientists also resort to the hypothesis of the global consciousness. Laplace’s demon is a classical example of a global observer. It possesses ultimate knowledge and is able to perceive the precise location and momentum of every atom in the universe at any given moment and to envisage its past and future values. “We may regard the present state of the universe as the effect of its past and the cause of its future,” wrote Laplace in his “Essai philosophique sur les probabilities”.

An intellect which at a certain moment would know all forces that set nature in motion, and all positions of all items of which nature is composed, if this intellect were also vast enough to submit these data to analysis, it would embrace in a single formula the movements of the greatest bodies of the universe and those of the tiniest atom; for such an intellect nothing would be uncertain and the future just like the past would be present before its eyes. (Laplace 1951: 4f)

This concept was, and in many respects still is, extremely important for science. First of all, in Laplace’s thought experiment, the ultimate observance of what occurs in nature appears as the principle of the ultimate controllability of nature, its compliance with perpetual, permanent laws. Secondly, a number of outcomes that are significant for science evolved from this principle, e.g., the development of determinism, which one can either accept or attempt to challenge.

Speaking next about the modern sciences, they have recently been referring to the hypothesis of the global consciousness more eagerly, even when interpreting quantum physics. However, when they do, they imply a type of global consciousness that would be responsible for the generation of events in the universe, namely, a global collapse of the wave function. (Zeh 2000, 2003). Zeh (2000) provides a mature review of the problem of consciousness:

The true physical carrier of consciousness somewhere in the brain may still represent an external observer system, with whom they have to interact in order to be perceived. Regardless of whether the ultimate observer systems are quasi-classical or possess essential quantum aspects, consciousness can only be related to factor states that appear in branches of the global wave function – provided the Schrödinger equation is exact. (Zeh 2000: 222)

The “global observer” concept is directly connected to the important logical and philosophical category of omniscience – a concept in its own right. The notion of omniscience, actively used in epistemology, refers to the agent of knowledge (observing subject), be it God or ultimate intellect (for example, an omniscient rational agent in Bayesian confirmation theory; Bovens & Hartmann 2003).
For the most part, such discussions relate to the contexts of analytic theology (Swinburne 1993; Grim & Plantinga 1993). One of the key philosophical instantiations of the concept of the global observer is, of course, the concept of the Christian God. At the same time, the majority of philosophical contexts refer only to the logical constituent of the concept, disregarding its religious aspect – thus, speedily transplanting the issue of the global observer (specifically, the issue of the omniscience) from the realm of theology to the realm of logic. One of the logical problems related to the definition of God – namely His ability to hold and unite different points of view (points of view of local agents) (Grin 1985) – will be addressed in the conclusion of this paper.

However, discourses concerning omniscience are tightly knit with a number of purely logical, aka epistemological paradoxes (Grin 1985; Chisholm 1976; Castañeda 1967). One of the major issues here is the use of logical omniscience. This paradox arises when modal logic is applied. In modal logic, the provability of a statement implies its indispensability, and the indispensability of some statements implies the indispensability of some other statements that, in fact, originate from the initial statements. Then it turns out that by possessing the knowledge of some statements, a subject acquiring knowledge can draw logical conclusions. The paradox of omniscience would then narrow down to the acknowledgement of the fact that a subject of knowledge, at any given time, knows everything that stems from his knowledge (Stalnaker 1991).

In addition, the concept of logical omniscience (Stalnaker 1991) or theoretical omniscience is often connected with the notion of the ultimate agent. This peculiarity has to do with the contexts concerned with the development of logical omniscience. For example, in game theory they expand on the subject of appropriate choice – here, the choice is made by a rational agent that ideally should be omniscient. Another example is in probability theories, where an omniscient agent, aware of all possible probabilities, which, strictly speaking, are no longer probabilities, is introduced (Laplace’s demon was the first such omniscient agent). Knowers or believers are logically omniscient if they know or believe all of the consequences of their knowledge or beliefs. That is, x is a logically omniscient believer (knower) if and only if the set of all of the propositions believed (known) by x is closed under logical consequence (Stalnaker 1991). A model of a logically omniscient knower is also used in possible worlds semantics analysis (Hintikka) and probability theories. According to this analysis, x knows that P if and only if P is true in all epistemically possible worlds. Epistemic models using this kind of analysis have been widely applied by theoretical computer scientists studying distributed systems (in multi-agent systems), and by economists studying game theory. According to semantic models for epistemic logic, this analysis implies that knowers are logically omniscient (Hintikka & Halonen 1998). At the same time, according to some models in game theory or in probability theories, because all logical truths in any probability function must receive probability one, and because any logical consequences of a proposition P must receive at least as great a probability as P (at least if one holds fixed the context in which probability assessments are made, as in rational decision making), any use of probability theory to represent the beliefs and partial beliefs of an agent will face a version of the problem of logical omniscience.

And finally, in the areas of ethics and meta-ethics, we come across the concept of the “ultimate observer,” which is based on the same notion as the concept of the global observer.

According to the ultimate observer theory:
- Ethical sentences express propositions.
- Some such propositions are true.
- These propositions are about the attitudes of a hypothetical ideal observer (Firth 1964).

The main idea of the ideal observer theory is that ethical terms should be defined after the pattern of the following example: ‘x is better than y’ means ‘if anyone were, in respect of x and y, fully informed and vividly imaginative, impartial, in a calm frame of mind and otherwise normal, he would prefer x to y’ (Brandt 1959: 173).

In this case, the ultimate observer should also be endowed with ethical values to be able to judge which ethical statements are true, therefore, the agent is, at the same time, an epistemic agent.

So, as could be seen from the review, a number of philosophical and scientific contexts engage the concept of the “omniscient agent.” In one way or another, all these approaches appeal (either in the assertive or critical manner) to some agent – a bearer of supreme, whole and ultimate knowledge. In summary, this agent could be called the ideal, universal, omniscient observer, who I will choose to call the “global observer.” Certainly, it would hardly be possible to come up with a unified, universal concept of the global observer that is equally suitable for all philosophical and scientific contexts.

Thus, the objective of the present research paper is to identify just some of the most important features involved in the development of this concept and to zoom in on them. Therefore, first, I will closely follow the line of reasoning behind the concept of the global observer, and then I will provide my critical comments.

To complete my task, I will use certain approaches and ideas typical of the contexts found in constructivist epistemology. I expect application of this technique to help me to achieve my objectives because this technique offers a number of effective tools that help to demonstrate the flaws of the concept of the global observer. Thus, I will concentrate on that method of critical analysis of the global observer that can be found in the works of some theorists of constructive epistemology. I will pay special attention to concepts of “observations” and “objectivity” (e.g., the way Heinz von Foerster addresses them). By applying some ideas developed by him and by other constructivists, I will attempt to reveal why it is reasonable to resort only to local observations, leaving out the issue of external (in relation to these observations) objective reality.
of affairs regarding a certain matter, the matter nevertheless exists. This is one of the most convincing cognitive intuitions and it is rather difficult to prove its ambiguity.

If it occurred to someone as a joke to count the number of grapes harvested last summer in the province of Champagne, we would most likely dissuade him of such a whim. Here we would be guided by the notion that success in an undertaking of this kind is practically unattainable. Yet we would also understand full well that although the exact number of grapes might in principle be indeterminate for a single observer, this number is absolutely determinable for a global observer. Even if we do not know this, it is clear that last year, in the province of Champagne, a concrete and finite number of grapes were harvested; they were not counted by the local observer, but they were “counted” by the global observer (Brentano 1966).

For example, this would have been the case for Laplace’s demon due to the knowledge he possessed of all physical and mathematical parameters, which could lead only to a specific result. In the same way, we also cannot guess what the present constellation of stars might be at a specific point in the Universe, yet remain convinced that this constellation is completely definite. The concept of the “God’s eye,” which Putnam critically observes, is responsible for our confidence in this specificity, and, in particular, that a subject holds this knowledge and that any of us can refer to it in the course of our cognitive activities. We cannot know which card will come third from the top in a pack of cards, yet we are certain that it will be a specific, concrete card, and so forth. For example, in the case of “logical omniscience,” the disposition of any element in the multitude is defined as being fixed, and we can always mentally refer to an omniscient subject that holds the knowledge of the entire sequence of elements in the multitude.

The world might be understood as follows: if a certain portion of its facts (events) cannot be determined or observed by a finite observer, we infer that they are completely specific and concrete, regardless of the lacunae in local observation. For example, they often refer to reasoning in the sense of Laplace’s model to prove determinism in the universe (Bishop 2002). In doing this, we make a certain unclear assumption about the course of global observation. For the world on the whole there is nothing undetermined or unknown: the world is absolutely transparent to itself. It is rather complicated to assume that indeterminacy might be so pervasive beyond the bounds of local observation; otherwise, the very meaning of determinacy (knowledge) would be lost. If there is no one (including the global observer) who does not know how many grapes were gathered during a harvest, then it makes no sense even to talk about such ignorance. The only sensible conclusion one could make about indeterminacy (always local) would refer to a certain global determinacy. One may know what is, one way or another, known, just as one may only determine that which is already determinate. This is connected to the fact that, despite various “points of view,” it might be presumed that there is one truth and that the world is fixed and definite (Vision 2004). If we no longer implied such a situation, then it might be possible not even to try (in some cases when we needed it, let say in court) to mold heterogeneous data into a single version. Yet for it to be realizable, it should be assumed that there exists a system of observation that configures the correct event into a whole (Lombard 1986). However, despite the vigour of such implicit assumptions, they are not self-evident and can be challenged, as I will show below.

A similar, intuitive belief, with which all our judgments about the world are infused, is conditioned by the fact that inherent in the concept of truth is the idea of the subject-observer, who steps into the role of the transcendental guarantor (the philosophical God, the ultimate observer, the omniscient subject). A “global observer” is some mental construct that characterizes our perception of the world. Here we are talking about some idea that underlies certain stereotypical concepts about the existence of the world. Despite the inconsistency of this idea (which will be discussed below), it has certain strong points, determining some stereotypical mental concepts not only in relation to the world but also in terms of the logical concept of the truth. This, in turn, is connected with the notion that the attribution of truthfulness is always bound to a certain event (or fact), which we speak of as the correlate of confirmation, for only confirmation can be true or false (Armstrong 1997). The understanding of an event (or fact) involves a concept of truthfulness or falseness, but the concept of truthfulness or falseness is meaningless without an event. In this case, “an event” is construed as a certain situation – something that is happening or not happening and that corresponds to a certain statement that can be either true or false. It seems that the mind appeals to the intuition of the global observer in connection with the above pattern of thinking. Below I will try to expand on the idea that, contrary to the inherent persuasiveness of this intuition, it contains an internal contradiction. But first, let us see what initiates this intuition. In a sense, it is difficult to declare this intuition as superfluous or artificial, because our mind actively resorts to it every time it believes that some situation will persist, even in the absence of a local observation. This is because we consider the notion of truth to be a purely epistemic concept – it makes sense in a situation when we say that knowledge corresponds with certain situation. If “x” thinks that there is “y,” and if there happens indeed to be “y,” we believe that the statement is “true,” and if otherwise, that the statement is “false.” Correspondence, in turn, implies participation of two parties in a process: an object of knowledge and an agent of knowledge. And it is the idea of the agent of knowledge that takes the place of the global observer when we talk about the truth that we have no other means to prove. Therefore, the notion of a global observer symbolizes the idea of an agent of knowledge that makes the statement about the truth meaningful. In this sense, this concept could be replaced with another word or term, but cannot be rejected as a concept.

There is another formal argument that promotes the introduction of a global observer specifically as some subject or agent. One might object to the introduction of a global observer-agent, appealing to the fact that there is no need to complicate the matter and that one idea of a global observer – the idea that, despite the lack of local observations, the world remains unchanged – is already sufficient. Strictly speaking,
the idea of global observation contains the same contradiction as the idea of a global observer, and the introduction of a global observer is not critical to demonstrating the contradiction. However, in a strictly logical sense, global observation requires an agent to conduct such an observation, as observation without an observer, as well as knowledge without someone who possesses this knowledge, is pointless.

« 26 » In addition, to point out why some philosophers specifically refer to the global observer (subject, agent) and not just to the global observation, the following reasons might be presented. For illustration purposes, let us assume that the global observer is the global witness, specifically the one able to appear in court as a witness. I also take as a premise that in our cognitive constructions we often use the notion of the global witness even when the situation is not concerned with legal proceedings. Let me explain what I mean. Let us assume that in a course of investigation of a legal case the judge interviews several witnesses and they all give different and incomplete testimonies. It is rather challenging to deal with such insufficient information, but the judge is trying his best to create a complete and objective picture of the occurrence by putting together tiny bits of information delivered by the witnesses. In doing so, the judge acts as if trying to engage some ultimate witness, able to produce a precise account of the incident. Such a witness, and basically it is a collective witness because it is expected to possess knowledge of every account of the incident any possible witness, who saw it from a different angle and point of view, can produce. But why is it that when we mentally process such a situation we do not always restrict our imagination to the images produced by the camera, but instead rely on the ultimate observer? The answer is simple – we understand that the camera will see only through the eye of someone watching the recording. However, we prefer the eye to be impartial, i.e., perfect. This is how we arrive at the concept of the “ultimate,” or “global observer,” which is, in fact, the ultimate witness. Had we not had this notion, we, perhaps, would have not tried to get the true picture of the incident (and tell it to judges), as we would have thought that the truth becomes a reality only when no one perceives it, when there are no witnesses. We would have believed that the truth is the same as the camera, recording the incident on its own and that nobody can ever know what is truly happening. But in so far as we do not believe that, we do not limit ourselves with the concept of the observations (camera recording) but resort to the concept of the subject-observer (ultimate witness that saw the incident in its entirety).

Global observation for local events: Qualitative and quantitative limitations

« 27 » Thus, the most important argument in favor of introducing a global observer is the event-based interpretation of the world. The simplest “element” of the world is a condition or event (a certain state of affairs or a relationship). Even a limited simplification of the world (a reduction to the elementary) does not permit us to discover elements within the foundation of the world that are neutral (i.e., lying outside a determinate type of set), but only some of their configuration. To substantiate this thesis we may show that in our attempt to extract an element from a configuration, another configuration must be formed in which the element would be located, and that, in reality, elements never exist beyond the limits of a configuration (Wilson 1974). Therefore, the most basic element in the world would be a condition or an event, and, in turn, there should be an observer to accompany the event, or to be part of it.

« 28 » This interpretation of observation, in its general characteristics, is close to the ideas of epistemological constructivism. Constructivism is an approach in the theory of knowledge in which it is considered that a person (observer) does not reflect the surrounding world but actively creates and builds it in the processes of perception and thinking (Poerksen 2004; Rockmore 2005; Glasersfeld 1990). Observation in this case is understood not as a passive, but as an active process. The reality is not external to the observer and is not independent of him/her; it is created in the process of interaction (e.g., in the process of communication: linguistic, cognitive or social), and an observer is also shaped in the...
process. It is important that neither one of
two precedes the other. It is meaningless
to talk about the reality prior to the obser-
vation (“Objectivity is a subject’s delusion
that observing can be done without him,”
Poerksen 2004: 148) and it is pointless to
evision an observer before his/her meet-
ing with the reality (Foerster & Poerksen
2002). In a sense, observation is a process
that shapes both “the field of the observer”
and “the pole of the observed.” Here, nei-
ther of the participants plays the leading
role, but they refer to each other, forming
a creative circle and undergoing a process of
coevolution (Foerster 1984; Segal 1986).
 If a system of observation is nec-

cessary for the constatation7 of an individual

event, then in the absence of a local observer

it could be assumed to be a global observer –

a guarantor of the determinacy of the event
(Frank 2009). Local indeterminacy (no one

saw who committed a murder) transformed

to global (this in principle is unknown)

may turn into a genuine epistemological
catastrophe since we cannot assume a fact-

based indeterminacy of the world. Since

there cannot be an observable without an

observer and in the event that all local ob-

servers are unavailable, we are tempted to

say that the reality, in their absence, is “non-

existent.” To avoid that, in a number of phi-

losophical contexts they (local observers)

are substituted with a global (ultimate) ob-

server, in the presence of which objects and

events remain “existant,” i.e., certain. One

such classical argument was the argument

of George Berkeley about the existence of God,

such classical argument was the argument

of George Berkeley about the existence of God,

and the event.

If the system of global observa-

tion is directly connected to our under-

standings of truth and fact, then I must

separately show why an event requires the

participation of a local observer. From the

standpoint of different approaches, this con-

nection might seem apparent, e.g., as von

Foerster puts it:

But we can also try to bring in

some philosophical arguments, supporting

a fundamental correlation of the observer

and the event.

The configuration of an event is
tied to observation by means of two criteria:
(1) qualitative limitations; and (2) quantita-
tive limitations.

By qualitative limitations I mean
the requirement of an imposition of a spe-
cific conceptualization (a means of percep-
tion) in order for the event to take place. For
example, a table lamp standing on a table
is the result of a defined means of percep-
tion that may be juxtaposed against another
means. The bunch of particles and group of
spots on the lamp’s base may be configured
in another way (not into a lamp, say, but into
a certain something, “X”). From the point of
view of neurophysiology, only colored
spots appear to the retina and nothing else.
In addition, we see a three-dimensional pic-
ture and distinguish the borders of objects
and figures. Yet in the course of percep-
tion, the eye does not see random outlines
accidentally united into something whole,
but strictly defined objects construed as if
we already knew what we were supposed to
see. Psychologist Ulrich Neisser showed
that whatever is perceived enters the brain
not in its primordial form, “as it exists out
there,” but is fitted into some preset pat-
ttern (“format”). And the currently existing
format is shaped by the sum of all previous
acts of perception (Neisser 1976). What the
eye actually receives, however, is a gigantic
collection of points, an ensemble of visual
“pixels,” comprising in its limits the contents
of what is seen. During this process, nothing
in perspective allows contemplation to cre-
ate boundaries between what we see as “the
lamp,” “the table on which the lamp is stand-
ing,” “the picture hanging behind the lamp”
and so forth. Nothing prevents us from
uniting pixels on the retina of the eye by an-
other means and getting different results. By
uniting the lines of objects in a new way we
would basically be able to reshape the world,
and in this world new objects would be enc-
countered. For example, uniting “the edge of
the table” with “the headboard of the bed”
would give us object “X,” as yet unencoun-
tered in our ontology (Wertheimer 2012).

Moreover, the perception of the
observer not only structures reality but also
structures it to a certain integral complete-
ness (Husserl 1997). For us to perceive a
house in a given figure or object, for example,
we would have to apply the process of struc-
turing a figure or object to completion (Hus-
serl 1973). If we were to rely simply on our
emotional experience alone, then we would
be able to see very little; more importantly,
what we saw would be without any mean-
ing, such as the house’s frame or a couple of
wooden additions. In order for us to see a
“house” in a concrete image, we are impelled
by a certain virtual capacity of mentally cir-
cumambulating the image to comprehend it
as something whole. The connection be-

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7 | The Collins English Dictionary (2003 edi-
tion) defines “constatation” as “ a statement or
an assertion [from Latin constat] it is certain; see
constant.”

8 | The term “observation” is used here with
rather broad applicability. I mean not only those
constatations that fit the information of experi-
ence, but any knowledge involving an element of
judgment or confirmation. For example, the
application of the term “observation” to mathemati-
cal equations or laws of physics would simply de-
ote a “knowledge” of them.
tween event and observer based on the criterion of qualitative limitations may also be shown by means of the difference in perceptions: from two drawn lines let us assume that one observer sees the first line as being longer than the second, while the other observer sees it as being shorter. Since the first line cannot be at the same time shorter and longer than the second line, we will attribute its condition to the peculiarities of local observation (Wertheimer 2012).

« 37 » The variety in qualitative limitations as the event takes shape may be a notional or value configuration. The idea behind this principle is simple: by imposing various notional or value systems we may get various orders of events or facts (Bennett 1996). If we were to ask what we might see from the point of view of the “naked” facts, such as observing, for example, a murder scene then, with some effort, we may notice that there is nothing about a “murder” in what happens: there are only the physical shifts of the bodies, something we can observe directly. The ethical feeling of indignation or horror that intervenes here is, strictly speaking, of imported origin – its nature is not factual (Wittgenstein 1961). In order for us to see an event of “murder” in the shift of the macrobodies, we need a determinate semiotic network, by means of whose implementation heterogeneous data would be configured into a completely determinate and very dramatic event. That said, a purely physical interpretation of what happens is nothing more than a type of configuration, and its possible claim to finiteness would also be unfounded. Different configurations of events will turn out to be real for the physics of the macroworld and the microworld (Wigner 1967), just as an event described in the language of molecular structures would be distinguished from an event described in value systems. In this sense an understanding of a “purely (neutral) fact” is a kind of working fiction, since facts are always relative to determinate systems of observation. So if some political forces see good things in the event of the assassination of a president and other political forces see evil things, then one of the ways we may escape such a situation of conflicting interpretations would be by indicating the event’s value neutrality from the world’s (or the global observer’s) point of view as something that is neither good nor bad, but simply a physical fact. The physics of the events, however, are as tied to the types of observation as evaluative opinions are to various systems of values. That is why the event can be configured in a different way, even if we have in mind a fundamentally different (in this case, physical) level of description (Davidson 1969).

« 38 » Such are the manifestations of the qualitative condition of an event’s configuration. The most important thing to understand here is that under various conditions of perception, data can be configured into different events. The key criterion of this variety is its connection to the local observer.

« 39 » By the second (quantitative) condition, I mean the condition of limiting everything that is perceived as that which is allotted as an event. For example, the description of an event of parking a car is not everything that was happening at a specific period of time, but only a limited selection of actions that are the quantitative conditions of configuration. That said, the task of fully describing the simplest object or action may turn out to be practically unfulfillable for the end observer (Rickert 1962). As far as the global observer is concerned, a full description is attainable in this case, but then the event would seem neutralized. The issue is that calculating the entire sum of possible events producible in a specific space-time period strips the exercise of sense and renders useless any efforts to form an event (Husserl 1973). Strictly speaking, describing an action from the point of view of the continual uninterruptedness of a lasting series of micro-acts does not capture the event, but only registers the material from which the event is formed (Galton 2006). Thus this single series of micro-acts from which we could try to construct the event of parking a car would inevitably collapse, not leaving us the opportunity to collect it into an event. If we intend to consider the position of the passers-by located next to the parking spot and their outward appearance to be a subject for our conversation, just like the number of flowers on the lawn, the shifts of the cat running around that lawn, as well as the location of subjects in neighboring houses, and so on and so forth down an unforeseeably long list, then the “event” will lose its contours and be scattered. Moreover, for a completeness of description we would also have to take into account the smallest changes, and all this would then be akin to Zeno’s paradoxes, a description of an “event” that will never end nor ever begin (Grünbaum 1967). For example, in trying to describe the moment of parking we would have to describe which square millimeter of the tire first touched the square millimeter of the asphalt, which touched it second, and so forth. In other words, for a globalness in observation, we would have to take into account all details of the position of the Universe at the moment of the parking of the automobile (Richmond 2009). This means, however, that no parking is happening any more, since a “parking” is nothing more than a limitation of the entire sum of other acts in favor of one isolated selection. The same thing would happen if we tried to describe events from the point of view of all registers and levels (from atomic to that of a value system). The synchronization and equalization of the event status processes taking place on different levels (the movement of protons in a chemical reaction in a gas tank in the process of parking, the sensations of the driver’s body and his concomitant thought process) is a kind of deconfiguration of the event, since it grasps all dimensions of reality, while an event is only a fragment taken separately.

« 40 » The quantitative condition of configuration also implies a chronological limitation on the event. Since events are represented in time, their time framework proposes an interpretation of the observer. For example, if we are talking about a historical event, then the problem will involve defining where the event begins and where it ends (Hacker 1982). As an example, where should we place the beginning of the French Revolution? This is one of history’s most significant events and would have, it seems, its own boundaries in time. Yet it is the Storming of the Bastille that historians have agreed to define as the beginning of the French Revolution. In this case, however, researchers are guided by a conventional approach: we need to agree on the data that will symbolize the beginning of the event in question. In addition, we understand that some causes, having arisen at random and led to the event, took place even earlier. We may say that the event “The French Revolution” is something ephemeral, provided that
a precise framework of significance and time is not stipulated, a framework within which the Revolution can be localized. That said, this seems possible when we extract some situations (the Storming of the Bastille) and sacrifice others.9

« 41 » In this way, an event may be formed only under the condition of selective emphasis (Thomson 1977). To form (or to structure) an event means purposefully to discern: distinguish, separate one element from the other, e.g., the substantial from the unimportant. Here, Gregory Bateson’s scheme applies – “the difference that makes the difference” (Bateson 1987). This is connected first of all to where and how the limits will be set. If the limits are not set and everything turns out to be part of a series of equivalent actions, then we will not have an event (Gill 1993). In this process, the emphasis and extraction of specific actions remain the responsibility of the local observer, whose selectivity is immediately dictated by his locality. He carries out the quantitative selection of actions defining the fragment and level of the descriptive order. Such are the manifestations of the quantitative condition of an event’s configuration.

« 42 » In order for both of these conditions to be met, the observer needs specific foundations – namely those that are distinct features of local observation. For the event to be formed, we need to extract some data and set aside other data; we should see one and we should not see the other. We should also have foundations for the imposition of a specific framework of values or meanings. The existence of such a framework ensures a distribution of interests, priorities and preferences. In this process, the entire sum of these foundations coincides with the limited and relative position of the observer. “To have foundations” means to stick to a plan of observing some levels and not paying any attention to others. In this way, we may say that if there are actual foundations, then the observation taking place is local. Here we must also mention that the observer, the observed process and the process of observation all form an indecomposable unity. An observation cannot be made without an observer, but while structuring an occurrence – the observer also shapes himself/herself. And, by shaping himself/herself, creating constructs in his/her perception, the observer structures the world. This is a creative cycle, which, as von Foerster puts it, is the gekrümmte Raum, curved space in which an observer is determined in the process of defining an event (Foerster & Förksen 1998). Moreover, because each configuration is based on unique foundations, it might be supposed that all observers are cognitively closed (ibid).

To observe or to be global – that is the question

« 43 » I may try to show, in that case, that the notion of a global observer contains within itself a certain contradiction. Indeed, upon closer analysis this notion seems incoherent: “being global” and “being an observer” appear to be incompatible features. This constataion’s most immediate consequence would be to deduce that there are no absolute events, in the sense that, for the global observer, no events seem to take place.10 In such a situation the local observer would have to refrain from judgment, although not from skeptical thought, most likely in the sense that there would be nothing for him to say.

« 44 » As a rough approximation, I may justify what we have said as follows: every configuration of an event is relative (including one and excluding another); at the same time, the global observer has to continue being an observer (the condition of configuration) yet avoid relativity (the condition of globality). On the one hand, the global observer must configure the event on the other hand, he can only do so relatively, and not absolutely. Thus the contradiction will comprise the following: on the one hand, the global observer must configure the event, and on the other, he can only do so relatively and not absolutely (murder is the point of view of the local observer; so if a change occurred in the system of observation, the fixable sum of bodily movements and states of those bodies might not be a “murder”).

« 45 » The difficulty indicated here is linked with the impression that the global observer has no basis upon which to prefer one event and repudiate another that is just as realizable. The basis is obtained by separating the essential from the inessential, which is dictated by personal preferences, the particularities of perspective, the differences in points of view and so forth. This seems feasible to the local observer if he focuses on the realm of the clear and the unclear. In such a case, an event would simply comprise a move from one realm to another. Were these differences to be eliminated, however, that is, if the realm of the clear were totalized, the basis for the configuration of the event would be removed (Badiou 2005).

« 46 » I may try to deduce two consequences from this circumstance. The first and more radical consequence is that the global observer cannot configure events at all because he would need a basis, and this basis would have transformed him into the local observer. The second, less forceful consequence is that even if the global observer can formulate all possible events, at the stage of reproduction he will not be able to separate one the global observer configures, but the very fact of the global observer’s presence.

9] For example: the Storming of the Bastille was predated by the taking of L’Hôtel national des Invalides [The National Residence of the Invalids], known usually as Les Invalides. Les Invalides was conceived as a poorhouse for distinguished army veterans. Since the rebels had to repulse the army and a large number of casualties. In to be a far from simple task, with clashes with sand arms. The taking of veterans. since the rebels had to repulse the army conceived as a poorhouse for distinguished army hand to the Bastille. At that same time, an enor- found since it had already been dispatched before- the solid reserve of weapons, no gunpowder was a storming and there was no need for a storming. was a siege. The taking of the stronghold became which did not need to be “taken, “ and indeed, this mous mass of people rushed upon the Bastille,

10] An exit from the situation so described may be the following observation: if there can be no events for the global observer, we may declare the existence of this same global observer to be an event. In such a case, the event would not be the
rate one from the other or indicate which one of them it actually is. For this second case, I add the following: even if we assume nevertheless that the global observer can observe all events, this still does not mean that he will be capable of understanding what is observable (visible). To the degree to which understanding denotes a logical procedure, namely definiteness, that is, demarcations of one thing from another, and information about the unknown to the known, this understanding will turn out to be blocked for the global observer due to the totality of observation (contemplation).

In the case of definiteness – that is, the imposition of boundaries separating and distinguishing one thing from another – as this occurs in the traditional logical form “this is not that,” an understanding will be achieved for the local but not the global observer. This is connected to the fact that during global observation, nothing can be limited – in other words, taken out of context or setting – and this wipes away the borders of definability. But because we can understand only that which is defined, understanding cannot be achieved if there is a removal of the conditions of definiteness. The situation of non-understanding, as it were, will correspond to the status of the event itself, which becomes indefinite.

The same thing occurs during the impossibility of moving from the unknown to the known, because understanding is the act of recognition of that which was previously unknown (Husserl 1997). In order for understanding to come about, we must distinguish a situation of knowledge from a situation of ignorance; otherwise, knowledge may occur but understanding will be absent. In global observation, the move from the unknown to the known is excluded, since global observation does not assume lacunae of ignorance. Rather, it is a matter of the one-time and full-scale presentability of the entire sum of the data, without leaving any room for complementary acts of understanding.

And so, since understanding is the essential feature of a subjective basis of observation, I need to talk about the difficulty of reconciling the qualities of “being global” and “being an observer.”

Conclusion: “Did nothing actually happen?”

With this in mind, I may ask once again: why do we need to link global observation to an observer? Can we not declare global observation to be an especially subjectless event? The answer is that we can and, in a certain sense, we need to do so; the problematics of this decision, however, involve a loss of the world’s event-related and, strictly speaking, determinate configurability. If the world exists, then it must be determinate (it must be some kind of world) and must consist of events. Determinacy, however, assumes limitability and, consequently, local configuration. Something determinate takes place in a situation if something else does not occur. If everything happened immediately, then, strictly speaking, nothing would happen.

Justification for the introduction of a global observer, as well as its inevitable inconsistency, can be shown in a quite simple way. The “subjective-objective” tandem is a fundamental element of our mental process through which we gain our perception of the world. More often, philosophy uses this language: it teaches us that there is a subjectless event? The answer is that we can understand only that which is defined, and there is an objective perception, to which we should progress. According to this dictionary, if there is a subjective observer, then there should also be an objective one. Usually, it is at this juncture and in the context of this difference that a need for the introduction of some analogue of the global observer arises. For example, Putnam writes about it, analyzing the concept of the “God’s Eye” view (Putnam 1990, 2007; Siderius 2011). So, the ideals of science are backed by the idea that we have to overcome a subjective observer in ourselves and progress to an objective one (Putnam 1990). The concept of an ideal scientist, for example, is similar to the concept of such an unbiased observer, (1) who is and (2) who also sees everything as it is in reality. An objective observer actually is a global observer; they are the same thing. But unlike the expression “global observer,” the phrase “subjective observer” shows that when we substitute the word “observer” for the word “subject” (and the observer is the subject, and vice versa), then we can clearly and distinctly (actually, by looking at the very wording) see an obvious contradiction in the expression “an objective subject.” The phrase “an objective subject” is a typical example of an oxymoron. However, oddly enough, the foundation of the concept of the world often rests on this particular contradictory notion.

Thus one may conclude that every event is unreal (since without a local observer there is no subject or event, only a hypothetical cloud of particles, which, in turn, must also be a configuration), but reality is eventless (without a local observer it remains deprived of determinacy). Pondering the true state of affairs, we unwillingly assume that there is someone observing the real event (how and by whom the “murder” was committed); but if the global observer exists, then, it seems, he cannot observe anything. The fact of the murder will exist only for the local observer but not for the global observer, because if the latter had observed the murder he would have become local. Thus, if the global observer also exists, he does not observe the “murder,” but rather exists in a world that Democritus described with the help of his well-known “atoms and void,” having in mind the principal non-structuredness and non-configuredness of the initial existence of the world (Taylor 1999).12 “Atoms and void” means, however, in its way, a minimal level of configuration of the world and, since we must be consistent, “atomicity” may be discarded in favor of pure void.

Classical metaphysics teaches us that reality must not be dependent on the interpretations of the observer (Russell 1929). Yet once freed of interpretations, the idea of Democritus: “In reality, everything is but atoms and void.” (Taylor 1999: 46)

This is the traditional definition of essence as distinguished from appearance. Essence is what does not owe its existence to anything except itself (essence is not conditional); appearance, on the other hand, owes its existence to something other than itself (the existence of appearance is conditional).

http://www.univie.ac.at/constructivism/journal/10/2/227gasparyan
realistic, however, the testimony of the global observer may turn out to be somewhat useless. But if he is ready to choose in favor of one version and not another, he would have to stop being the global observer and turn into a local observer.

"55" We can also try to introduce a global observer as a neutral recording system capturing everything occurring – for example, in the form of a heavy duty camera, installed in a secluded place. A hypothetical "heavy dutiness" of the camera is required for it to be able to capture what is happening at all levels: not only at the macrophysical, but also at the atomic and subatomic levels. On the one hand, such an assumption can be immediately withdrawn as one not able to grant resolution to the problem, because to decrypt a recording, we would need some observer-interpreter, whose interpretation would bring us back to the local level. But we can also try to say that if you observe the observed in a form of exceptionally heavy duty cameras, the global level of observation will be maintained permanently. But in this case, an even more paradoxical situation would arise because when some cameras observe the other cameras, which, according to the terms of the problem should not be interrupted by the invasion of a local interpreter, an infinite regress of observations would be created, which would yield no result due to its paradoxical nature. In the case of an arbitrary disruption of the observation, we would either shift to the local level, or convert the entire chain into the unobservable one, i.e., make it "blind." If we continue the series to infinity, we would never arrive at any result, which would make the whole procedure pointless. Thus, the idea of a global observer as the end authority, summing all

14 If we retreat to Christian terminology, we can more simply and obviously explain the main point of the paradox examined here: the material world lies in sin; material man is sinful, and on the strength of his original sinfulness, he always sees the world with a touch of distortion. So then the question arises: Is it possible for God, as a being bereft of sin, to see what a person sees? If so, then he is also sinful; but if he is not sinful, then he cannot see it, and therefore, there is no global observer.
the intermediate observations, also presents a problem (Luhmann 1995). According to Luhmann, “the statement ‘God is dead’ implies that it is impossible to identify the end observer” (Luhmann 2000: 87).

Yet then the testimony of the global observer would turn out to be deprived of its desired effect. An appeal to the global observer as a guarantor of truth would then possibly not yield the expected representation about the actual state of affairs.

Meanwhile, the paradox from which it is so extremely complicated to escape would most likely be that we find it difficult to imagine truth without a global observer, yet we also find it difficult to imagine a global observer. In a certain sense, imagining truth in the way to which we are accustomed will not work if we do not introduce the experience of belief into the existence of a global observer.

Yet another, perhaps more practical conclusion from the above – and a way out of “a dead-end street” – could be contained in the following statement. To go around paradoxes it would make sense to discuss only local observations, which are limited to mutual observation or introspections (Foerster 1981b; Luhmann 1990), and to not assume the existence of some absolute truth, reality, or the state of affairs beyond the local observations.

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Open Peer Commentaries
on Diana Gasparyan’s “What Can the Global Observer Know?”

How We Can Get an Observer Back
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> Upshot • I introduce some distinctions that I hold to be useful for understanding the global observer problem and then sketch a hypothetical scenario that suggests the existence of an observer that is as good as a global one.

In her paper Diana Gasparyan claims that events are observer-dependent entities (§28). It seems, however, that we are able to distinguish two senses in which we could sensibly say that an event requires an observer. The first might be called “epistemic” and is rather a trivial one. An epistemic access to an event requires an epistemic agent, an observer who should be able to witness that event. The other sense might be called “ontological” and is extremely non-trivial. It amounts to the assertion that mind-independent events are impossible.

Take the epistemic sense first. I think that we can explain how we could sensibly speak about events to which neither we nor anybody else actually have epistemic access. Imagine, for instance, that no one knows, knew or will know who killed Abraham Lincoln, including Lincoln himself and his killer. Although this knowledge is not actually available to anyone, the following counterfactual proposition seems to be true:

If an appropriate epistemic agent A were present at the place where and the time when Abraham Lincoln was killed, A would know who the killer is.

I think that this counterfactual possibility is enough that we could sensibly speak of events happening in the absence of any actual observer and start to investigate the truth values of propositions that stated them. It seems that there is no need here for a global observer that is something more than a metaphor for the counterfactual conditional I stated above.

Things are not so easy if the mind-independent events are ontologically impossible. Firstly, let us introduce a distinction between an observer that herself is taking part in the event she observes and an observer that is not. I will refer to the former as an internal observer and to the latter as an external observer. Think, for example, of an event such as parking a car. When I observe another person parking her car, I am an external observer. When I myself am parking a car, I am an internal observer. Consider now the following hypothetical case. Suppose there is a history of a material universe that amounts to an ordered sequence of events causally connected in space-time. Then suppose that the first events in this history were just simple physical events such that they exclude any mental properties in the common sense of the term such as perception or understanding. This hypothetical scenario is very close to that which modern physicists assume to be “actually true.” I do not claim, however, that my scenario is the real story of our uni-

1 | I.e., true in the actual world as opposed to true in a possible world.
verse. But it seems that such a scenario must be possible in every plausible conception of the event. Now conceive the following propositions:

(2) There are no events without an observer.
(3) There is a set of events that do not contain any ordinary observer as a part.

(2) seems to be the consequence of the ontological interpretation of the event conception proposed by Gasparyan. (3) follows from the scenario I described above. It appears that there is a considerable tension between (2) and (3). Could it be solved in a satisfactory way?

« 4 » As far as I can see, three main options are available here. The first is to assume the existence of an external observer outside of the universe in question. If such an observer was possible she would count as a global observer. Because she seems to be outside of the space-time continuum, she has access to every space-time point of the universe. We have, however, to admit that such an observer is a supernatural rather than natural one.

« 5 » The second option is to assume that every simple physical event has some observational powers. This option is not very plausible unless we are willing to accept a radical version of panpsychism. According to this version, the physical matter would have not merely some protomental properties, but something more that would enable it to observe what is happening in and to it. Sincerely said, such a version of panpsychism strikes me as very outlandish.

« 6 » The last option suggests that by creating hypotheses, physicists caused the history of the universe backwardly. This option is not very plausible either since it entails a very strong version of mental backward causation and the possibility of overlapping mutually excluding histories of a universe that could arise simply by formulating controversial hypothesis about its history. However, maybe each time a new hypothesis is formulated, a new universe comes into existence.

« 7 » As we see, each option has its own costs. But the costs are not the same. If I had the choice, I would choose the first. It seems to entail the existence of an external observer that is as good as a global one. And this is what Gasparyan is likely to reject. I do not see why such an observer should be impossible even if I have to admit that only a godlike observer could be good enough to play this role.

« 8 » The main reason why Gasparyan rejects the existence of the global observer is that such an observer would have to instantiate contradictory properties of “being global” and “being an observer” (§43). The property of being an observer seems to entail the property of being subjected to certain limitations whereas the property of being global seems to entail the property of not having any limitations. I think, however, that this does not apply to a being that is epistemically godlike. She must be able to adopt an infinitely number of limited points of views, each of which would be a possible combination of appropriate qualitative and quantitative limitations that, according to Gasparyan, we are to impose upon every genuine observer ($34$, §§38f).

« 9 » We may wonder what we could epistemically gain from assuming the existence of that godlike global observer, for there is no way to prove her existence anyway. Indeed there is no epistemological gain from such an observer if she does not have some additional qualities such as providing some kind of access to her own knowledge. But the point here is rather that we do not need any such observer for our epistemological purposes. When we, however, take the necessary connection between event and observer that Gasparyan assumes in her paper as onto-logically serious, then we get an observer back that is very like the global observer she rejected.

> Upshot • I consider the possibility of replacing the global observer with a collective observer and ask whether the insights generated by such a collective observer would have to be considered subject to non-linear interactions.

Who Downed MH-17, or Do Collective Observations Interact Non-Linearly?

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I consider the possibility of Gasparyan meeting with theoreticians such as

Diana Gasparyan directs our attention to an inherent contradiction in the philosophical concept of the global (or universal) observer, which serves as reference in cases that we assume to be observed but where the observer is unknown. To illustrate my commentary, I will draw on the example of the incident of the Malaysian Airliner MH-17, which crashed in summer 2014 after flying over separatist regions of Eastern Ukraine. A global observer in the sense of Gasparyan could have observed who downed MH-17. Was it separatists, as the official government claims, or was it a fighter pilot of the regular army, as the separatists suggest?

The global observer as a ubiquitous and thus omn-observer would have no limitation in observing this incident. It could observe in a way that is unrestricted and unperturbed by the claim of one or the other side. It could observe without delimitation of temporal or spatial beginnings and endings, and it would face no financial or material constraints in going into the details of the event. It could simply observe everything, and everything in the same, comprehensive and thorough way. However, in the end – as Gasparyan puts forward – this global observer, in acting this way, would lose any focus. It would have no bias, no preference and no particular field of interest. It would observe undifferently, which means that it would simply make no distinctions. Nothing would protrude from the uniform mash of its observations, and if nothing protruded one might rightfully ask whether such an observer would be observing at all. In this regard, Gasparyan meets with theoreticians such as

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Gregory Bateson, George Spencer-Brown, Heinz von Foerster, Niklas Luhmann and others who would have claimed that in the end, observing everything means observing nothing. Whoever does not draw a distinction does not observe at all.

«3» The theoretical counterpart of the global observer, the local observer, however, faces a wide range of limitations. Due to its perceptual, temporal, spatial, material, etc. constraints, it simply cannot see what it cannot see. Abstractly, one could generalize these limitations as capacity deficits and quantify them in terms of algorithmic complexity (see for details on this and the following Füllsack 2014). The observer could then be seen as the result of a trade-off between its capacity to observe and the complexity of what there is to observe in its world. Following Varela in conceiving observation as a sort of “capitalization of resources” (Varela 1992), the observer could even be regarded as the eigenvalue that emerges from the dynamics of selecting just the right amount of observables with respect to what capacity can be built on them and what is needed to maintain further observations. In this way it becomes conceivable that every attempt to increase observational capacity would need a more complex observer, with a steeper and harder to maintain gradient towards what is observed.

«4» In other words, complexity increases with observation. A way to induce such an increase is to combine observations in a collective viewpoint that is meant to be more comprehensive than just a single perception. In Gasparian’s account, it is a judge (§26) who in this way adds together tiny bits of information delivered by witnesses in order to generate a synopsis. The subsequently arising need to consider a growing amount of possible biases, preferences, prejudices, etc. in the witnesses’ observations might come as a surprise to this judge, but would be an instance of the concurrently growing complexity in this case. As Ross Ashby’s Law of Requisite Variety (1956) indicates, each gain in observational capacity will be escorted by its need to handle higher complexity.

«5» Nevertheless, one might say, combining enough observations could after all approach global observation – maybe not in the strict philosophical sense of universality, but in a rich enough way that serves most practical purposes. The collectivity of social insects, for instance, allows an effective survey of unknown resources. And the worldwide collective of scientific investigators is said to approach objectivity regarding what is thought to be true.

«6» However, there is another story about a judge that I was reminded of when reading Gasparian’s paper. This story was told by Lon Fuller in 1978 and deals with a judge who has the task of justly allotting a collection of bequeathed paintings to two heirs. This judge faces the problem that each possible allocation of the paintings has unpredictable implications for their values and hence cannot be warranted as fair in advance. In other words, the prices of these paintings do not add up linearly to a consistent and steady sum, but influence each other in complex and unpredictable ways. The paintings interact non-linearly; their value is always more than the sum of the parts.

«7» I suspect that this can also be the case when combining observations in order to gain a more precise, more objective or more “true” picture of what is observed. The deplorable case of the Malaysian airplane MH-17 recently showed that the addition of observations to clear up an insufficiently understood incident can cause just the opposite of clarity. It can provoke a profound and probably lasting obscuration of what needed to be observed. Each attempt to shed light on the question of who downed MH-17, be it by the national or the separatist side or be it by the OECD observers or by international media, induced yet further efforts of new observations, which collectively, meanwhile, make up a blurred picture of impenetrable complexity. Each side could have done it and each side has good reasons to obscure the case further – just because huge efforts in clarification are going on.

«8» Turning back to the theoretical side and to Gasparian’s argumentation, I would like to conclude my commentary by suggesting that we internalize and function- alize the (maybe just psychological) need to – after all – assume a global observer who knows what happened to MH-17. This could work in respect of systems that use self-models for organization (Miller, Galanter & Pribram 1960), as we humans probably do (Metzinger 2009). Using a self-model implies a concept of the (spatial and temporal) boundaries of such a model. Boundaries in their turn – as the philosopher Hegel told us – need transcendence in order to be. The use of a self-model hence – although a technical concept and widely used in today’s robotics (Bongard, Zykov & Lipson 2006) – seems to imply some kind of “beyond” in respect of the limitations of our capacities, which might be the philosophical locus for the achievements of reason (“Vernunft”). If this is correct, the global observer runs down to a functional precondition for local observation, needed to maintain the dynamical trade-off between observational capacity and environmental complexity.

«9» The local observer, however, remains hopelessly confined, and this not just by the limited size of possible collectives, but also by the possibly non-linear interactions of observation.

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**Human Knowledge and “As-If” Knowledge of Ideal Observers**

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>**Upshot** • My comments are aimed at certain difficulties and ambivalent statements in Gasparian’s paper that are necessary to clarify before any productive discussion can start. Particularly, the underly- ing problem of her research should be made more explicit and internal differentiation of various research contexts should be more precise.

«1» Diana Gasparian’s target article is interesting, mostly because of its provocative nature and potential to spark new and fruitful discussions. These are the most interesting issues discussed in the article:

http://www.univie.ac.at/constructivism/journal/10/2/227/gasparyan
PhILOSOPhICal COnCePts In COnstRuCtIvIsM

The “global observer” arose because differences in classical science and that rests on two restrictive criteria:

- Truth is something objective;
- Truth is void of paradoxes.

However, in a philosophical context such restrictions would be too unnatural. Firstly, it is shown in a number of philosophical contexts (Martin Heidegger, Wilhelm Dilthey, etc.) that truth is not necessarily identical to objectivity. Besides, truth is not always identified from the standpoint of subject/object differentiation; other criteria could be applied. In the article, however, it seems that Gasparyan believes that we can talk about valid metaphysics only if both these criteria are inherent in truth.

Secondly, it is normal for modern logic to be open to paradoxes when it concerns the development of either formal or contextual theories. Of course, paradoxes are harmless only until they trivialize the entire theory (but that rarely happens).

It is important to clarify these details because their omission may lead to erosion and uncertainty in the context in which the author intends to work. At the same time, the term “global observer” itself may remain somewhat vague and underdetermined.

However, to eradicate uncertainty in the definition of the term, Gasparyan reasonably provides a list of similar concepts, analogous to the concept of the “global observer.” I would also extend this list with the concept of “the outside of the world observer,” which, for example, cosmologist Lee Smolin uses in his book The Life of the Cosmos (Smolin 1999). However, since each of these concepts has been introduced to solve particular “the economy game,” which should be based on the principle of competitiveness, underdeterminedness and uncertainty about the future. Hayek’s example is perfect because it shows that the figure of the “global observer” is logically incompatible with the principles of an actual economy.

My last critical remark concerns the apparent uncertainty of the author’s position. It seems as if the text were written on behalf of the “global observer,” despite in the text the image of the “global observer” being rejected as nonexistent (or strictly paradoxical). Reading the paper, one gets the feeling of a constant presence of this performative paradox.

However, it should be admitted that these contradictions are not critical for Gasparyan’s theory (as they do not trivialize it), and in this sense, the introduction of certain clarifications could significantly strengthen the position of the author and clarify the above uncertainties.

Many PossibleObservers Instead of the Global One
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> Upshot • Even well-founded criticism of the notion of the global observer does not immediately challenge contemporary metaphysical realism. A viable alternative to the latter, and to far-reaching constructivist positions on the other side, originates in replacing global observation with actual and possible local observations.

• For quite a few years now philosophy has been experiencing a revival of metaphysical styles of thinking. What I have in mind here is metaphysical realism, which Diana Gasparyan refers to as “classical metaphysics” in §53 of her target article. Metaphysical realists believe that the world’s essence is what it is; that concepts have no creative or constructive force in ontology; and that the highest purpose of concepts and, for that matter, of metaphysics itself is to “carve nature at its joints,” as the popular metaphor from Plato’s Phaedrus 265e goes.

• Gasparyan’s article deals with a salient background theme of this kind of metaphysics: the idea of the global observer, who is an omniscient subject knowing everything about reality at all times.

• Because of the close relationship between metaphysical realism and Chris-
tian theology in medieval and early modern times, it is tempting to assume a deeper connection between the metaphysical concept of reality and the theological concept of an omniscient god. After all, the medieval philosopher who pondered the existence of substances and essences also believed that these entities are objects of divine knowledge. So, he actually attempted to retrace the thoughts of God by describing the structure of reality.

4 It is also worth recalling that Descartes, too, appealed to God's benevolence in order to overcome skepticism, for only God could guarantee him the reliability of sense experience. In the first section of her article, Gasparyan mentions many more examples from different areas and different times. Apparently Putnam had a point when characterizing metaphysical realism on the whole by the "God's Eye point of view" (see §7), at least from a historical perspective.

5 However, it is not at all clear that contemporary metaphysics is affected by the argument to the same degree. Of course, philosophical theology is still with us and very much alive. But in other parts of metaphysics, especially ontology, God does not play a crucial role anymore, at any rate not that of the global observer.

6 Gasparyan seems to think that the function of the global observer in classical metaphysics is to secure an objective conception of truth, that is, truth not dependent on "local observation," to use her term. But this rests on the premise that truth is "a purely epistemic concept" (§24), which metaphysical realists of today are happy to reject. For them, truth is a metaphysical relation between words or thoughts on the one side and objectively structured reality on the other.

7 In addition, they often suppose this relation to be based on an equally non-epistemic notion of semantic reference that Putnam once denounced as a "magical theory of reference" (Putnam 1981: 3–5, 16, 47) and that some metaphysical realists have later nicknamed "reference magnetism" (Sider 2011: 23–35). What Putnam took to be magic is a semantic fact for metaphysicians, sparing them the necessity of postulating a global observer.

8 Thus, Gasparyan's critique of the global observer does not shake the foundations of today's metaphysical realism. This is not to say, however, that she has chosen the wrong side, for there are reasons to dislike metaphysical realism anyway. What counts most, in my opinion, are some metaphysical issues: there is just too much ignorance of epistemology and subjectivity in the writings of the typical metaphysical realist; there is also a tendency towards a highly questionable conception of philosophy in which argument is replaced by confession at decisive points.

9 The best recent example of this attitude I could find comes from Theodore Sider, who frankly admits that a "certain knee-jerk realism" is an unargued for presupposition in his otherwise impressive book Writing the Book of the World:

"This picture is perhaps my deepest philosophical conviction. I've never questioned it; giving it up would require a reboot too extreme to contemplate; and I have no idea how I'd try to convince somebody who didn't share it." (Sider 2011: 18)

This passage is from a subchapter entitled "Against subjectivity."

10 A rather crude historical sketch, not to be taken all that seriously, might look as follows. Metaphysical realism began with God on its side, who was supposed to be the "global observer" of reality. Somehow along the line, metaphysical realism lost this divine connection and unfortunately became a kind of faith itself, resting on strong metaphysical convictions about the nature of reality and truth.

11 Another historical twist that has not been mentioned so far is the fact that the global observer, having been exiled from metaphysical realism, found a new home in absolute idealism of the 19th and early 20th century. Josiah Royce, for example, defined Being (i.e., reality) as that which is known, and argued for the existence of an "absolute knower" who observes everything, and whose knowledge, in the final analysis, is nothing other than self-knowledge. Ironically, Royce claims that this conception of Being is the only one that "can be expressed without absolute self-contradiction" (Royce 1900: 400).

12 The notion of "knowledge" employed here is obviously very different from that in metaphysical realism. It is direct, inspective knowledge as opposed to knowledge of external "events" (Gasparyan's favored ontological category) that either exist mind-independently or are "created in the process of interaction" (§28).

13 Because of this difference in the conception of knowledge, I am not sure if Gasparyan's arguments also have force against absolute idealism, where, as a matter of fact, the global observer occupies a much more central position than in metaphysical realism. Fortunately, however, absolute idealism is not as fashionable today as metaphysical realism.

14 As to the arguments against global observation put forward in §§43–49, I find these very convincing. In my understanding, they are based on the idea of limitation, which Gasparyan gives an ontological tinge by applying it to the "configuration of events." I would prefer to conceive it as limitation on observation, which is certainly in accordance with the article, where these two aspects are intimately related to each other.

15 Gasparyan helpfully distinguishes between qualitative and quantitative conditions in §§34–42 concerning conceptualization and selection, respectively. She argues that observation is necessarily shaped by these conditions, as any observer must "extract some data and set aside other data" (§42). The upshot for global observation is straightforward: it is impossible. For it could only be global if these limitations did not exist. If it were global, it would not be observation; so the concept of global observation contradicts itself.

16 This is a valid point, and it is once again reminiscent of problems about omniscience in classical metaphysics. The medieval philosopher envisioned above struggled for an adequate conception of divine knowledge as well. Consider, for example, quaestio 14 of the first part of the Summa Theologiae by Thomas Aquinas, on whether God can know infinite things.

17 Article 12 of that quaestio begins with the objection that the infinite is not known as infinite, which Aquinas answers by claiming that God knows everything simultaneously in an all-encompassing vision. This implies that divine knowledge has little in common with the discursive knowledge of human beings (discussed by Aquinas in
We do not know which poison killed Cleopatra or whether she died from poison at all. But certainly something caused her death.

But the truth of the matter no one knows; for it was also said that she carried about poison in a hollow comb and kept the comb hidden in her hair; and yet neither spot nor other sign of poison broke out upon her body. **(Plutarch 1920, Life of Antony 86.2: 329)**

There is a simple way to reconcile this intuition with the criticism of the God’s Eye point of view. We do not need a global observer for all actual and possible events of all times; we may as well settle for the idea that certain events can or could or could have been observed by someone, either directly by sense experience or indirectly through other some empirical evidence. (The latter obviously needs some elaboration that cannot be made here.) In brief, instead of the global observer we may envisage a possible observer for each event.

This must not be read as a definition of truth or reality, however. If it were, we would be left with a strong form of constructivism that in the past has variously been called idealism, verificationism or even critical rationalism (Royce 1900: 266). But the assertion that Cleopatra died in 30 BC is not true because this event was, or could have been, observed; nor does the existence of the poison that allegedly caused her death depend on actual or possible knowledge of the event.

The main reason why truth cannot be defined as actual or possible observation is that counterfactual conditions of epistemic justification cannot be defined in terms of justification. For example, we may say that a suitably positioned observer could have observed that Cleopatra was bitten by a snake. The meaning of “suitable position” is something like “close enough to see the event clearly,” which denotes a real spatial relation. A person standing in this relation to an event is able to make a reliable observation. Thus, talking about observation presupposes talking about reality.

But why then talk about observation anyway? Why not go back to the realist standpoint and abandon observation or, for that matter, epistemic justification altogether? The sentence “Cleopatra was bitten by a snake” is true if the snake’s teeth did cut Cleopatra’s skin; if this was the cause of her death; and so on. But you also need to know under what conditions the belief that Cleopatra was bitten by a snake is or would be justified, conditions that include different sorts of observations.

This two-sidedness of meaning, I think, is the ultimate reason why we cannot do without the notion of observation or, generally speaking, epistemic justification. Even though global observation is to be abandoned, as Gasparian has convincingly shown, there is still room for possible local observations made by someone.

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Transcending Illusions and Illusions of Transcendence

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> Upshot • Starting from the problem of having to write in a language heavily saturated by realism, this commentary limits itself to restating some key notions of radical constructivism, which, by paying attention to the strict limits of what we can claim to know, can more readily eliminate notions such as the “omniscient interpreter.”

As long as we attempt to write from a constructivist outlook while using terms that are saturated with the “realist outlook,” it is inevitable that we fall into various semantic traps and find it difficult to consistently express our ideas clearly. A thoroughgoing radical constructivist (RC) view avoids using terms such as “true picture,” “really” and...
so on – and does not appeal to notions such as “confirmation” since no such luxury is available to a radical constructivist.

2 In my commentary I emphasize a few core ideas from the RC of Ernst von Glasersfeld, restate some of their implications, and show how these implications would rule out any possibility of the “global observer” or “omniscient interpreter” discussed in Diana Gasparyan’s target article.

3 Concisely put, RC states that there are strict limits regarding what one can claim to “know” about what we call the “outside world.”

- We cannot claim to know anything about some “external world” (“reality”) since all we can have access to is our own embodied experience, and hence the “outside world” is for us a “black box.”

- Moreover, even our own experience remains a “black box” to ourself-as-observer because we must always construct some sense out of our experiencing in order to make any kind of statement about it.

The parallactic gaps

4 RC describes a range of critical uncertainties between the individual system and the world, and, also, between a variety of intrapersonal experiential processes. The incommensurability of these various phenomena constitutes unbridgeable “gaps” that in turn generate the condition of “groundlessness” on the outside and “selflessness” on the inside.

5 The argument here arises largely from Immanuel Kant’s observations about the illusions we create of there being “connectivity” between different phenomena that exist at entirely different levels. We generate what Kant called a “transcendental illusion” (Kant 1905: 247), where we have the tendency to confound our “subjective necessity” to perceive a connection between elements with some “objective necessity” of the objects we are describing (ibid: 248). In other words, our reason is characterized by the unique error of ignoring the “subjective origins” of our construals and by taking these construals as if they were “objective” features.

6 There are levels that are different levels simply because they can never “meet” one another. They are “mutually untranslatable” or are “not collapsible” or reducible one to the other. The illusion that we have levels that make a connection with one another arises because we ignore the subjective activity of the observer whose operations of distinctions create the illusion of a “connection.” Slavoj Žižek (2005) describes this activity of the observer as a “parallax view,” where by continually shifting perspective between two points, one generates the Kantian transcendental illusion or fallacy of being able to employ the same language for mutually incompatible events.

7 Constructivists will be more than familiar with the observation that the “word” is not the “object” (that the word is describing) and, more generally, that the “map” is not the “territory.” Furthermore, George Kelly took pains to repeat that the “word label” being used was not the “construct discrimination” that one makes (Kelly 1969: 87). Similarly, many authors such as Roger Penrose (1990) have emphasized the gap between “words” and what may be going on “in our thoughts,” the gap between “thinking” and “talking about such thinking.”

Unknowability as groundlessness

8 Constructivism induces states of doubt because of how it describes our relationship to what is called “reality.” Strict limits to knowing make it necessary to treat one’s knowledge as propositional or hypothetical, and to be constantly aware that each part of our “knowing” has a “sell-by date” stamped on it. Sooner or later, whatever we believe we know will be redundant, irrelevant, or no longer useful for anything and will have to be thrown away.

9 Here we have the dilemma of “groundlessness” of the observer, that is, the observer has no “solid ground” to stand on, and no direct access to independently existing objects that may tell him or her when his observations are in line with the “real.”

10 Constructivism emphasizes that just because we do “work,” it does not mean that we have grasped some essential fact or objective truth about some independent reality.

11 The radical constructivism of von Glasersfeld tells us that we do have to doubt our “senses” when instead they seem to tell us what is “staring us in the face,” or what is “obvious,” or what is “right under our noses,” or “as plain as day.” These and many other commonly used phrases make a reference to the realist notion of “direct perception,” that we see things directly “as they are in themselves,” as “independently existing objects or events.” The certainty that is removed here is that given by the illusion of directly knowing “reality” and of having a “handle” on reality.

We can neither “know” the other nor share “meaning”

12 We often try to reassure people by telling them that their “fears are groundless,” but what constructivism tells us is that it is not only our “fears” that are “groundless” but that everything in our experiential world remains “groundless” because we have no direct access to what we call the “outside world.” We cannot “know” it.

13 As part of the incommensurability of different levels within this unknowable external world, it is also the case, by implication, that (i) we cannot “know” the others in this world, (ii) we cannot “share” experience, and (iii) we cannot “understand” the other or “be understood” by them:

- We have no more access to an ontological reality than to the thoughts of another person. All we have to go on is our experience. In both cases we interpret what we see, hear, and feel, and we construct models that should enable us to make predictions.

14 RC replaces the standard notion of “shared meaning” with the idea of a constructed consensual domain of workable joint anticipations. Von Glasersfeld’s idea of creating an “adaptive fit” with others does not imply that we have created a “shared meaning” with them. It means rather that we have evolved a working compatibility between our own idiosyncratic meaning constructions and those of the other person:

- There can no longer be the claim that the meanings of words must be shared by the users of a language because these meanings are derived from fixed, external entities. Instead, here once more, there is at best a relation of fit. That is to say, we tend to conclude that what we have said is understood by the listener if the way he or she reacts to our utterance seems compatible with our
expectations. However, as we discover only too often, what seemed understanding at first, disintegrates when a seemingly unproblematic utterance leads to quite unexpected reactions in a new situation. (Glasersfeld 1988: 89).

Since we cannot “know” the ideas of another person, we cannot “share” experience with another, and consequently we cannot “understand” another person nor can we be “understood” by them. We may begin to ask what it is that happens in our networks of conversations if the best we can manage with others is to stabilize a certain networks of conversations if the best we can begin to ask what

experience with another, and consequently we cannot “understand” another person nor can we be “understood” by them. We may begin to ask what is it that happens in our networks of conversations if the best we can manage with others is to stabilize a certain degree of compatibility of expectations and coordinations of actions.

For the psychotherapist, the un-easiness with this view often arises with the realization that they are not describing their patients’ problematic experiences, nor are they describing the differential diagnosis of the presenting problems, nor other features of the clinical dilemmas presented in their office. Instead, from the RC point of view, the most that any therapist can do is to construe articulately their own experiences of the patients’ interactions with them.

Unknownability as selflessness: Experiential eviction

Following the constructivist outlook, we can find no certainties – neither on the outside nor in the inside worlds. While groundlessness threatens us on the “outside” because we cannot “know it,” selflessness threatens us on the inside because neither there can we come to “know” even the self.

Experiential eviction arises due to at least three impossibilities: (i) we do not have direct access to self-experience; (ii) we do not have the possibility of “self” observation; (iii) we cannot find a “self” at home when we go looking.

We do not have direct access to self experience

As we have seen above, we lose certainty by realizing that the senses do not give a direct account of “reality.” So the senses themselves become “circumscribed” in what they “recount” in “looking out at the world.” Equally problematic is our notion of “experience,” which we cannot take as a “given” either since RC shows that we cannot “know” even our own experience directly. We do not have any privileged access to our own inner world. We must always “make something out of it” via our constructing system. This is because we must always construct our experience of events in order to produce what von Glasersfeld calls “experiential reality.” From my point of view, this selective “experiential reality” necessarily leaves out all the rest of “experience” that may have occurred during the event.

Self-impacts in several potentially disturbing ways on the person in the form of (a) “self-doubt” as a result of putting the self “in parenthesis.” (b) RC also leads to the view that there is no “self” in the way that people usually think, and that (c) it is impossible to observe the self.

We do not have the possibility of “self” observation

Von Glasersfeld and Francisco Varela (1987) elaborate the problem of self-referentiality, showing that it is an impossible task. They problematize the notion of “knowing ourselves” by raising doubts about the dominant models of “consciousness,” “memory,” and “intelligence” and therefore of our own relationship to ourselves – whatever that self may be. In their article they point out the impossibility of self-observation elaborating Humberto Maturana’s principle that “anything said is said by an observer” into the affirmation that “anything known is known by an expericer.” Among the implications of this affirmation are:

(1) that we can know ourselves only to the extent to which we experience ourselves, and (2) that the self we do experience and incorporate into our cognitive structures, by that very act of construction, ceases to be the self that does the experiencing. (Glasersfeld & Varela 1987: 40)

So, far from being able to contemplate a handy “external global observer,” we cannot even establish a satisfactory grip on some putative local “internal self-observer.”

We cannot find a “self” at home when we go looking

Moreover, when as neuropsychologists we go looking for our “self-as-observer” (in order to “observe it and how it operates”), we can find no-one at home. So selflessness means that we cannot locate anything like a centralized controlling “observer” who can make observations and constructions of its own experiencing.

Both groundlessness and selflessness show the need from an RC point of view to reconstruct our handy but misleading notions about what is “inside” and what is “outside,” and what might be the “boundary” between some “inside” and some “outside” domains.

Conclusion

While talking creates the impression that the speaker (i) is revealing their thinking, (ii) has reflected and analyzed and understood the phenomena in question, (iii) is “speaking the same language” as the listener, (iv) is able to “share” their own experiences with the listener, and (v) “knows” or has understood something, RC reveals that all of these assumptions are mere illusions. Rather, talking is merely a way of attempting to “fill the impossible gap” that yawns between the experience of selflessness and groundlessness.

RC not only puts “objectivity in parenthesis” (Maturana 1988), that is, puts in doubt the “it” that we are construing, but it also puts in doubt the “knowing” that is going on about this “it” and, further, puts in doubt the “who” it is that is doing this knowing. In other words, constructivism also puts “subjectivity in parenthesis.” The struggle to position a “global observer” is dissolved by radicalising radical constructivism to emphasise that from the point of view of organisational closure (Maturana 1988), there is no “outside.” All that happens within the operations of the recursive relations of constitution in the network is the production of those same processes that constitute the autonomous system. There is nothing that refers to an “outside world” or to a “medium.” As Maturana often repeats, at the moment of perceiving it is not possible to distinguish a hallucination from a perception. More than thirty years ago Varela had already characterised the immune system as a network of cellular interactions whose events are inward-focused rather than outward. This leads to a very different understanding of the relationship of “inside” to “outside”:

The organism perceives the penetration of foreign materials not by recognizing them as
Cognitive Evolution and the Idea of a Global Observer

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A thorough understanding of this inward-folding organisational closure leads us to not “see” any “outside” that is relevant to the operations of organisational closure; even more so, if we imagine looking “outwards,” we would not even see the putative “boundary” that separates the autonomous system from its “medium.” From the “outside observer’s” point of view, they may distinguish a “boundary” that from the “inside” remains unseen. All of which is to say that it would be more interesting to abandon the “inside/outside” distinction and leave ourselves free to imagine other ways of understanding our experiences.

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I propose a simple way of representing the idea of global observation, broadly understood: a pair composed of an observer and the observer’s location (or viewpoint). Given this, the concept of global observation can have at least three different meanings: the idea of a privileged viewpoint (God’s eye); the idea of occupying all possible viewpoints at once; the idea of a view from nowhere (no viewpoint). According to the hypothesis proposed in the article, these are all consecutive stages in the evolution of cognition. I elaborate in detail on the final stage, which I call “theory of being.”

In my opinion, Diana Gasparyan plausibly proves the contradiction inherent in the idea of mind-independent, objective and ready-made reality, conceived of as a kind of distinct kingdom; and of the idea of a perfect description of this kingdom, made by some but not all minds – a description that mysteriously oversteps the limits, perspective-dependency, finiteness and locality of mind as such. However, together with an affirmation of Gasparyan’s position, I would like to formulate some critical remarks and a hypothesis closely related to the problem of the global observer – however, elucidating it from a somewhat different angle.

Let me start with some relative doubt as to whether the examples of global-observer-involving thinking given by Gasparyan justify the introduction of a single collective term; in other words – whether they make up a more or less unified collection. For Berkeley, the global observer is a really existing, full-blooded being. On the other hand, for Laplace and Donald Davidson, it is a theoretical fiction. Moreover, in Hilary Putnam’s argument there is in fact no observer, but rather a viewpoint of reality. If a metaphysical realist claims that a fully adequate description of objective, external reality is possible (provided, as it is mostly believed today, exclusively by science), says Putnam, then there must exist a kind of God’s eye viewpoint of reality, free of all the limitations characteristic of, for instance, the folk conceptual schemata used by people. However, the scientific view is not a good candidate in this context, since there might well be more than a single scientific description of the same phenomenon, while the language and tools of science are also perspective-dependent and changeable over time. If so, Putnam concludes, we can forget about occupying the God’s eye position: all descriptions of the world are internal to the world; they are all, as Gasparyan would say, local. Admittedly, if the point in question is to be a viewpoint, then it must be conceived of as a place for a possible observer, not for a desk or tree. Note, however, that still, in the case of God’s eye, the viewpoint is of a special kind, not an observer. In other words, there is a subtle difference between two ideas – the idea of a special observer, who is capable of somewhat extraordinary cognition, and the idea of a special viewpoint. Hence the question is: What makes global observation global – the capacities of the global observer, who can stand everywhere or who is capable, paradoxically, of standing nowhere, or the special features of the viewpoint, which might be occupied by an ordinary as well as an extraordinary observer, or both these things.

In this context I would like to stress the fact that there are at least three possible ways in which the global observer could be defined:

(GO1) A global observer is an observer capable of occupying all possible viewpoints at once.

(GO2) A global observer is an observer occupying some special, i.e., privileged viewpoint that allows him to see reality as it is in itself.

(GO3) A global observer is, paradoxically, an observer capable of occupying no viewpoint at all; this is the idea of someone having a view from nowhere, as Thomas Nagel (1989) brilliantly captured it.

Now, it is not entirely clear which characteristics Gasparyan has in mind. If she thinks that they are all equivalent, then it is up to her to prove it. Equivalence is a promising perspective, nevertheless it should be explicitly demonstrated. It seems that Gasparyan’s intentions are best expressed by (GO3), but at the same time she refers to Putnam, whose critical ideas of the God-eye’s viewpoint are rather close to (GO2). Moreover, she refers to (GO1) without providing any comment on the difference between (GO1) and (GO3). We read that the global observer is “a collective witness because it is expected to possess knowledge of every account of the incident any possible witness, who saw it from a different angle and point of view, can produce” ($26$).

As for the second of my remarks, Gasparyan affirms the existence of a local observer or even epistemic locality (thus

http://www.univie.ac.at/constructivism/journal/10/2/227gasparyan
modesty) in general, and I believe that this is reasonable as long as we consider our limited cognitive capacities and perspective. However, I would like to stress that this philosophical affirmation is in fact, in a sense, a re-affirmation; i.e., an affirmation that is made after a long and difficult history of attempts to break down the barriers of locality.

6 Now, let me suppose that locality is a natural condition of all living and cognizing creatures. At the same time it seems that in the evolution of living creatures and of cognition one observes a kind of tendency in organisms to overcome their locality. One need look no further than the invention of movement. An organism capable of quickly changing its position in its surroundings lives in an entirely different local context (I do not mention here the case of concrete components with possible ones is the first step toward the further paradoxes inherent in the idea of a global observer consists of treating all these views as already actualized or concrete (if they are all actualized, there must be an observer who actualize them all)).

Let me outline a hypothesis that states that there is a fragment of the natural history of cognition (especially that of primates) that starts from the capacity called theory of mind, or rather from something similar (restricted to observations), and ends up with what I would like to baptize with a term borrowed from ontology, namely theory of being.

7 Suppose there is a pair: {observer X, the location of X}, i.e., a pair composed of a concrete observer, for instance you, and of your actual position. Now, in this particular context (I do not mention here the case of emotions, crucial in the developmental perspective), the theory of mind can be characterized as the capacity to substitute or replace one component of this pair or both of them with some other concrete observer and/or its position. This means that I can project what I would see if I occupied your position or what you would see if you occupied mine – these are partial substitutions – and finally, I can project what you now see in your actual position (full substitution). The difference between these two partial substitutions seems quite significant when we consider their cognitive sophistication. Jane Goodall (1986) showed empirically that chimpanzees are able to substitute locations. For instance a chimpanzee, let us call him Steven, can project that another chimpanzee, let us call him John, sees only two of the four boxes into which the man in a white coat is putting cookies. So, if Steven could speak, he would say something like this, “If I were there, in John’s place, I would not have seen four boxes but only two.” However, if I am color-blind and you are a normal perceiver, then there is a crucial difference between your capacity to project what you would see in my location and your capacity to project what I see in my location. In such a case, a substitution of the observer requires that you know about the pathology of my cognitive system and understand the phenomenal consequences of it. I am not saying that in normal circumstances you could know what it is like to be me, and I could know what it is like to be you, but if we put aside this postulated purely subjective aspect of perception, there is enough material in our cognitive functioning that can be adequately projected by others.

However, substituted observers are still concrete individuals, like you and me, like Steven and John. Substituted locations are somebody’s locations, and not only fixed points. Thus, let “C-observer” refer to a concrete observer, and “C-location” to a concrete location occupied by someone. The proper theory of mind, i.e., the substitution of both components of the pair could be represented as follows:

Theory of mind: {C-observer, C-location}

8 An observer with a theory of mind is able to replace one concrete observer with another and one concrete location with another concrete location.

9 Now, according to my hypothesis, the next step in cognitive evolution comes about through a process one might call modalization. Because of modalization one can conceive not just a concrete observer but also possible observers; not only locations occupied by someone, but also possible ones. For instance I can project what you would see if you occupied a fixed position on the other side of the street – a position that is not actually occupied by anyone (a concrete observer but moved in the imagination into a possible point of view); I can also project what any possible observer would see in your concrete position, be it the top of the Empire State Building (any possible observer instead of one really occupying the position). The top of this skyscraper is conceived of as a viewpoint. Hence this is exactly where the idea of a viewpoint independent of any concrete observer comes from; a viewpoint conceived of as a place waiting for observers and, so to speak, offering them a particular presentation of the world.

10 Thus I will write “P-observer” for possible observer and “P-location” for possible location. We thus have:

Modal theories of mind:

{C-observer, P-location};
{P-observer, C-location}

11 The replacement of both concrete components with possible ones is the final step of modalization. The concept of a view of the world becomes complete with the completion of modalization. For instance, I can think of a potentially infinite number of views associated with the Wawel Royal Castle in Krakow.

Theory of views: {P-observer, P-location}

12 Of course, any view is a possibility as long as nobody actualizes it. Note that the first step toward the further paradoxes inherent in the idea of a global observer consists of treating all these views as already actualized or concrete (if they are all actualized, there must be an observer who actualize them all).

13 Observers endowed with a theory of views are ready to recognize – as Heraclitus, Parmenides and most explicitly Plato did – that all that we perceive, the entire world surrounding us, is a worldview, a presentation fitted to our cognitive capacities. If so, an observer naturally tends to take a further step to overcome his locality. He forms the idea of reality as opposed to views (here the fundamental distinction between appearance and supposed reality comes on stage), and the ideal of knowledge of reality as opposed to knowledge of views.

14 First, an observer, working still within the theory of views, can postulate
some special position within this framework: the idea of a privileged observer (e.g., a scientist as opposed to folk observers), the idea of a privileged viewpoint (God’s eye) and the idea of occupying all possible viewpoints at once (say – God’s eyes). If all these strategies within the structure of theory of views turn out to be failed, then an observer may want to overcome the structure itself.

« 17 » Thus, after modalization, the next procedure is elimination or reduction. Let the stroked words mark the names of eliminated components. We thus obtain two possibilities first:

Theory of the view from nowhere:
{P-observer, P-location}

« 18 » Here Gasparyan’s idea of a global observer appears, and the idea of a view that is not ascribed to any particular – neither concrete nor possible – viewpoint. However, this option must be distinguished from the following:

Theory of the view for nobody:
{P-observer, P-location}

« 19 » It is here that the idea of objectivity comes on to the stage, as long as “objective” means “without any appeal to any observer.”

« 20 » These two theories (I am still using the term “theory” as it stands in the term “theory of mind,” thus in a somewhat unusual sense) should be distinguished, since you can hold one without the other. For example Berkeley held the first but, identifying esse with percipi, he explicitly rejected the second.

« 21 » However, these two theories are both paradoxical. There cannot be a view from nowhere; there cannot be a view for nobody. Such “views” are not views at all. Both facts have been convincingly presented by Gasparyan; however, without clear distinction. Now, these theories are paradoxical as long as we still want to use the category of view, i.e., when we are tempted to think that when only one component of the pair is eliminated, the category remains applicable. Elimination of both leaves no hope; no room for views. And this is the final step, call it ontologization:

Theory of being: \{P-observer, P-location\}

« 22 » Hence by “theory of being” I mean the capacity to think – truly on the very frontier of our logical, rational, conceptual schemata – of a common base of all views; a base that is not a view. It might be said that this is the idea of reality behind views, but I do not want to use the term “reality” if it is so naturally opposed to “appearance,” and especially the word “behind” is unsuitable. Yes, this is the idea of reality but when you say that reality is behind its appearances, then I genuinely do not know what you mean. There is no opposition for a simple reason: appearance can be opposed to another appearance. If reality is not an appearance then reality can have appearances but it cannot be compared and opposed to them.

« 23 » Note that Gasparyan’s constructivist critique regarding the idea of independent reality works as long as we want to retain the category of view, as long as we claim that this reality does have some special view – an extraordinary view for nobody and from nowhere – and moreover as long as we claim that such a global view can be compared with our local views and judge them; that this special view is the arbiter of adequacy and inadequacy of local views. In other words, constructivism is a profound critique of the idea that reality in itself does have its own special view regardless of any possible perceiver; that reality looks in some way by itself and that these special “looks” justify some (not all) of local “looks.” Let me say it in a somewhat logical stylization. A set of propositions may be closed under the fixed operator of deduction. Logicians speak then of a deductive closure. Analogously, let me speak of phenomenal closure: an item may be closed or unclosed under the operation that might be called generation of views. Now, if it were correct that reality itself is phenomenally closed, then naturally there is a temptation to use this closure somehow, i.e., to use these views of reality itself, for instance to announce that there is a special method of getting to them.

« 24 » A realist may claim that reality – the postulated base of all views – is not phenomenally closed. Phenomenal closure is the result of reality’s interaction with observers. However, let me use the more abstract term “being” in order to avoid misconceptions associated with the term “reality,” which frequently serves as a side of this or that opposition.

« 25 » Hence, after ontologization, an observer accepts the fact that being itself does not look in any way and as such it cannot serve as a judge. An observer having a theory of being can fully acknowledge the fact that his surrounding is a view; that it is one of many possible phenomenal closures of being. He can say this as long as he does not claim that being can have some package of information for us when we disregard its views. He is a realist as regards being and a constructivist as regards views (phenomenal closures). But still, what sense does this final step – toward a theory of being – make?

« 26 » The sense is, say, cognitive and moral. If the evolutionary hypothesis is plausible, then the affirmation of locality proposed by Gasparyan must not be like Rousseau’s slogan “back to nature.” It is precisely a philosophical affirmation, thus it is indeed a kind of our higher-order, propositional and, as psychologists would say, meta-cognitive knowledge (thus self-knowledge). It is a recognition of our epistemic and existential condition. As such, it is normative – in virtue of this recognition we can impose different norms on the results of our cognition, especially knowledge, and on our ways of life and attitudes toward the rest of the world. This is the anti-fundamentalist lesson of modesty. However, let me stress the cognitive sense of it. Note that even when we reject the idea of a global observer and affirm locality, we nevertheless perform a global recognition of our epistemic situation – namely that we are always local observers. Note the intriguing tension between locality and globality. The recognition of locality is global and only observers having a theory of being are capable of making truly global recognitions of their epistemic and existential locality.

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http://www.univie.ac.at/constructivism/journal/10/2/227gasparyan
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> Upshot • From the standpoint of epistemology-centered operationalist, pragmatist, constructivist perspectives, which are firmly grounded in the capacities of limited observers, all omniscient observers in realist ontologies and theologies appear both completely unattainable in practice and conceptually incoherent in their formulations. Nevertheless, these ideas may be useful heuristically.

1. I am in general agreement with Diana Gasparyan’s article regarding her critique of realist philosophies and their assertions concerning exhaustive descriptions of reality by omniscient (‘global’) observers. Despite my skepticism about the validity of these realist constructions, in the spirit of Feyerabendian heuristics for hypothesis formation, I think that they may nevertheless expand the realm of imagination. Imaginary unrealizable constructs, such as Maxwell’s demons or Laplace’s clockwork universe, can serve as useful conceptual tools as long as their underlying metaphysical assumptions are not taken literally or adopted unconsciously.

2. Gasparyan’s critique focuses mainly on the logical incoherence of omniscient observers, whereas this discussion will concentrate on how the concept of omniscience might arise from practical experience, and why such omniscient observers are generally unattainable in practice. Although limited observers can have complete knowledge of a highly restricted and well-defined symbolic realm with an agreed-upon state-space, such as a computer simulation or chess position, it seems obvious on the face of it that omniscience with respect to even a small part of the physical world will be extremely difficult, probably impossible, to realize physically. Whether a single protein molecule or a cell can be exhaustively described, and if so, in what terms are completely problematic issues in and of themselves, even putting aside theoretical considerations of measurement uncertainty principles, observer effects, quantum indeterminacies, and nonlocal interactions. Omniscience requires the existence of such an exhaustive description as well as measurement of all of the distinctions that would characterize the initial state of the system. Carrying out each measurement in turn requires physical resources (minimally 1 kT/bit of energy), which are easily outstripped by the astronomical numbers of measurements required (I believe that similar measurement requirements pose limits for quantum computing). Whenever omniscient observers are discussed vis-à-vis physical systems, everyone needs to be reminded of their unattainable, imaginary, provisional, and postulational character in addition to their internal inconsistencies.

3. Notions of global, omniscient observers come mostly obviously from monotheistic religious belief systems, where the existence of an omniscient and/or omnipotent sentient being (God) is assumed outright. Here the purely metaphysical (and transparently wishful) nature of these beliefs is apparent, such it is easy to dismiss them for lack of empirical evidence. But because these belief systems involve metaphysical, ontological assumptions that can be constructed to be impervious to empirical testing, even complete lack of empirical evidence cannot necessarily challenge them on their own terms (most people choose religion not for metaphysical consistency, but for the comfort it brings related to coping with death and misfortune, reinforcing personal identity, and providing social bonding). On the current scene in the sciences, there is debate over whether possible-worlds/multiverse theories can ever be tested empirically (Ellis & Silk 2015). I tend to regard these theories, along with the many-minds interpretation of quantum theory (cf. discussion of Heinz-Dieter Zeh’s view in §10), as observation-free Platonic metaphysics cloaked in science.

4. There are other, less obvious routes to notions of omniscience. The idea of ever more powerful observers can also be grounded in everyday intuitions that stem from our experiences with limited observers: of who knows what (e.g., small children vs. their parents) or of more inclusive vantage points (e.g., mountaintops, towers, panopticons; information in our address book vs. the massive databases of spy agencies). Epistemic growth is a fundamental feature of our experience and the basis for constructivist psychologies and epistemologies. The enlargements of perspective encountered in everyday experience are often conceptually generalized to lead to the more abstract proposition that greater, more inclusive perspectives are always possible, without limit.

5. There are parallels in concepts related to natural numbers [1, 2, 3, …]. When numbers are small, they can be concretely represented in terms of distinguishable countable things (objects, events). Abstraction and generalization of the process of adding things (numerical succession) lead eventually to more abstract, less tangible notions of potential and actual infinities that turn out to bear little relevance to practical concerns (Cariani 2012).

6. There is a similar conceptual trajectory for local and global observers. We assume here that concrete, physically-realized local observers all have sets of measuring devices and means for reporting the symbolic (“pointer reading”) outcomes of measurement processes (Cariani, in press). For any set of observables \{O_1, O_2, O_3, O_4, …, O_n\} located in local, finite numbers of physically-realized observers, it could be postulated that there is a “super-observer” that could be constructed that has access to the whole set.

7. The epistemic capability of the super-observer is somewhat less than (and distinct from) that of the omniscient global...
observer if the set of all observables realized by local observers is limited (finite), whereas the set of all possible observables is still larger than this or even unlimited (infinite) in its scope. Super-observers are attainable and physically realizable if the numbers of observable distinctions that they can make is finite and within engineering limits (e.g., the aggregation of data from national weather sensor networks or the aggregation of all car-cams in Russia). Omniscient global observers are inherently not physically realizable if the space of possible observables is unlimited (infinite), but the physical resources available to actually carry out those measurements are finite. The question becomes ill-posed, with an ill-defined answer, if both spaces are infinite. The leap from a finite-but-large super-observer to the omniscient global observer is similar to the (highly questionable) leap of faith that mathematical realists (Platonists) make when postulating the existence of actual infinities based on indefinitely long processes of accretion (induction).

Omniscience and emergence

I agree with Gasparyan that for the omniscient observer, which can know or predict all past and future states, there are no new events, no novelty, and nothing that appears to be emergent. Although the notion of an omniscient observer of the physical world is fraught with contradictions and apparent implementational impossibilities, there are restricted realms that can be exhaustively described by finite observers, making omniscient observers of those realms possible. I have argued in the past that computer simulations are such realms and that their designer-programmers have full access to all of the states of the system, their state-transition rules, and all of their future states (within the temporal constraints of carrying out the computations). The designer-programmer has a God’s Eye view of the simulated world, and therefore, from this perspective there can be no emergent events in the simulation that are not logically deductible from the initial states and rules of the simulation (Cariani 1989, 1992). Viewed this way, the notion of a simulation exhibiting computational emergence is a mirage precisely because of the omniscient character of the designer-programmer vis-à-vis the created simulation. What can be emergent, however, is some new idea in the designer-programmer’s mind that was inspired or provoked by the simulation. Likewise, some sub-omniscient observer of the simulation having access to only some subset of states or rules can be surprised by the behavior of the simulation.

Divergences

Considering the neurophysiology of vision, it is probably best in this context to avoid altogether simple camera-and-pixel metaphors for characterizing visual neural representations at the retinal level (§35). The pixel array metaphor discards the fine spatio-temporal correlation structure of the spike trains produced by retinal ganglion cells that may be the basis for bottom-up grouping operations (e.g., visual shape from common motion). Although we agree that perception is highly structured by both bottom-up mechanisms for grouping and top-down pattern expectancies, this does not mean that all percepts are “fitted into some preset pattern,” which would falsely imply that we cannot perceive what we cannot recognize. Vision is a structured process that has processing constraints, but its basic functions do not rely on large sets of preset templates or acquired schemes. Visual systems are general-purpose sensory systems that are open to new situations; they can gracefully handle patterns of light that have never in the past been encountered by ourselves or by our species.

There is relative autonomy of perception vis-à-vis expectation. Expectations can bias our perceptions in ambiguous cases, but in general we do not hallucinate our expectations – under normal circumstances what we see depends most directly on what is presented to our eyes. We choose whether, where, and how to look, but not specifically what we see when we look (a scientist chooses what measurements to make, but does not control their specific outcomes). If we were to completely specify the contents of what we see, we would become functionally blind in relation to our surroundings – the distinctions made by our senses would depend solely on our own choices and not at all on the structure of the surroundings. Sensory systems can be organizationally closed (chosen, constructed by the observer), but they must be informationally open (contingent on interactions with surrounds) to be useful in guiding action.

Postulational vs. empirical modes of discourse

When dealing with realist frameworks, whether in mathematics (platonic realism) or in the sciences (materialist realism), it is usually helpful to distinguish between two complementary modes of discourse: the postulational mode and the empirical mode.

The postulational mode sets forth a set of assumptions and arguments to argue for a set of conclusions based on those assumptions. Mathematical proofs occur entirely in the postulational mode. Metaphysics and theology necessarily operate in this mode. Realists in mathematics, physics, and philosophy habitually operate in the postulational mode such that there is seldom any need to cite empirical observations that could falsify assumptions or arguments. The nature of the discourse is that of axiomatic deduction, and the “truths” that are produced are analytical truths of convention.

The empirical mode involves both empirical observations (evidence) and predictive models. The empirical observations are the results of physically realized, concrete measurements in concrete, limited observers that are necessarily limited in number due to the physically-limited, finite nature of the organisms or machines that make them. The predictive models are limited in their computational requirements, such that they need to be able to produce predictions within (humanly) relevant time periods.

The two modes are complementary. I agree with Gasparyan that a given discourse is engaged in either one mode or the other, i.e., the postulational God’s Eye omniscient view or the empirical mode of the limited concrete observer.

Arguably, both modes are needed in science, albeit at different stages of hypothesis generation and testing. Science involves both an expansive, creative mode by which hypotheses are imagined, formulated, and refined and a contractive, critical mode by which the predictions of hypoth-
es are rigorously tested against empirical observations. In the creative mode, “anything goes,” (Feyerabend 1973), where all ideas, even wrong ones, can produce potentially useful hypotheses. These two modes find a parallel in biological evolution, where variation and phenotype construction create organicism variety and natural selection provides critical testing. Expansive variation and construction produce “hopeful monsters,” whereas the rigors of selection choose the survivors that will repopulate the lineage.

16 The postulational, axiomatic mode is used to imagine what would be the consequences of entities, processes, or conditions that include concepts that may not necessarily be concretely demonstrated. In sections of computational neuroscience that are concerned with “reverse-engineering” how brains work, the postulational mode includes the process of Piercian abduction, in which mechanisms are envisioned and provisionally proposed that qualitatively replicate and/or predict particular system functions or behaviors. In the natural sciences, in contrast with philosophy, mathematics, and some sectors of physics, this postulational mode is restricted to physically-realizable entities. An antidote to runaway metaphysical fantasies in these latter domains is to make an explicit point of bracketing such discussions as being in a provisional, postulational (or God’s Eye) mode. Alternately, as Gasparyan suggests in her conclusion, we could restrict ourselves to local observations, eschewing the global view altogether in our own science and philosophy. It would be a mistake, however, to in any way impose such restrictions on others. For science to be radically innovative and predictively successful, we need a diverse, tolerant, open intellectual ecosystem coupled with fierce debate and rigorous testing of theories. It is a difficult balance to achieve, both intellectually and socially.

17 To conclude, global, omniscient observers exist only in our imaginations, but being parts of our imaginations, these notions may be heuristically useful in the free creation of new hypotheses. However, when it comes to testing hypotheses, we need to think strictly in terms of local observations, i.e., evidence that is directly available to our senses.

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Which Events is the World Made Of?
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> Upshot • While I agree with Gasparyan’s incisive critique of the concept of the “general observer,” her use of the concept of “event” is somewhat ambiguous. On the one hand, she equates “events” to Wittgenstein’s and (and, truly, Leibniz’s) “configurations of objects” or “states of affairs” and she consider the world as a collection of such states of affairs. On the other hand, she cites Badiou’s work in support of her criticism of the “general observer.” Yet Badiou’s events are very different from Wittgenstein’s: they are locally produced by historically (hence, spatio-temporally) situated agents in their concrete intersubjective (social) activities. I argue that a resolution of the target article’s ambiguity in favour of Badiou’s conception of events would allow constructivism to escape a narrow epistemological reading of its basic thesis (which Gasparyan convincingly defends) in favor of a broader interpretation.

The global observer, the world, and the (missing) events
1 Diana Gasparyan’s target article presents an excellent argument for the inconsistency of the notion of the general observer. As she writes, the contradiction arises because,

44 on the one hand, the global observer must configure the event, and on the other, he can do so only relatively and not absolutely (murder is the point of view of the local observer; so if a change occurred in the system of observation, the fixable sum of body movements and states of those bodies might not be a ‘murder.’” (§44)

As Gasparyan observes in Footnote 6, her conclusion coincides with one of the major theses of constructivist philosophy, and we can therefore interpret her argument as supporting the constructivist position without adding any additional content. It may provide an additional tool that the constructivist could deploy in the debates separating her from realists, idealists, and so forth, but it does not really impact what constructivism is. Once the debates are over, we can all go back to our readings of Heinz von Foerster, Ernst von Glasersfeld, Humberto Maturana, Francisco Varela, Jean Piaget, and so forth, and happily forget what Gasparyan said.

2 I believe this interpretation is mistaken. The target article contains the basis for an important addiction to the core of constructivism and perhaps even the kernel of a major reinterpretation of constructivism itself. This kernel, however, is well hidden in Gasparyan’s article, and bringing it to the fore requires some work.

3 Gasparyan’s overall argument relies upon her previous definition of the world as a collection of events: “The simplest ‘element’ of the world is a condition or event (a certain state of affairs or relationship) […] and, in turn, there should be an observer to accompany the event, or to be part of it” (§27). In more detail, her complete argument runs as follows: (a) the world is made up of configurations of objects (events); (b) the configurations can only be determined through observation; (c) observations are always determined by an observer and (d) are therefore relative to it; hence (e) all observations are local. It follows (i) that the notion of a “global observer” is self-contradictory.

4 In the sections between her event-based definition of the world (§27) and the conclusion about the inconsistency of global observation (§44), Gasparyan discusses various arguments in support of her thesis (b)–(e). However, there is no explicit dis-
cussion of the epistemological and ontological status of “events,” the basis for the all-important premise (a). The only mention of this problem is in Footnote 4, where the author notes that her event-based definition of the world is similar to early Wittgenstein’s (Tractatus 1.1) and, possibly, to Aristotle’s. Yet, the following footnote denies the relevance of an ontological discussion of events to her argument with a rather dismissive statement: “Even if the world were composed of things and not events, we would still need the traditional addendum of subject-observer, as the author of the determinacy of a thing” (Footnote 5). As I am not quite sure what Gasparyan actually means by being “the author of the determinacy of a thing,” I do not think the point made in Footnote 5 can be appropriately addressed.

“5” The absence of any meaningful discussion of events’ ontology is particularly puzzling in view of her citation (§45) of Alain Badiou’s 2007 book Being and Event, which is completely devoted to such a task and which proposes a rather different analysis of what an event is and how it relates to an observer. In the remainder of my commentary I will argue that a Badiouian interpretation of Gasparyan’s first premise (“The world is made up of events”), would both strengthen her argument and perhaps help move the predominant epistemological interpretations of constructivism toward a more praxis-based interpretation of its basic thesis (the world is observer-dependent, and reality is thereby constructed).

W-events and B-events

“6” Let me introduce a few formulas to clarify the difference between a W-event (for Wittgenstein’s definition quoted in the article) and a B-event (for Badiou’s). Since Badiou himself is fond of using set-theoretic language to illustrate his definitions, such formulas may be helpful in our comparison. Remembering that W-events are just “configurations of objects,” we could define We as a particular relation that obtains among things: \( W = R(t_1, t_2, \ldots, t_n) \) where \( T = \{t_1, t_2, \ldots, t_n\} \) is the set of all things in the world. This definition is quite unsatisfactory, however, as we would have a one-to-one mapping between relations and events. In other words, we have just renamed events as relations. A refined definition could be the following: \( W = R\left(t_1, t_2, \ldots, t_n\right) \), where \( R \) is the set of all possible relations among all the subsets of \( T \). This further attempt is still rather rough and could be refined much further, for instance by introducing temporal indexes to represent that a specific configuration holds at a certain time \( t \), by adding actions to allow the relationships to turn into other relationships (i.e., the function “push over edge(box)” would turn the configuration “box onto the table” into “box on the floor”), and so on. There is a considerable literature on this topic, and several well-known approaches have emerged, such as, for instance, the situation calculus or the calculus of events (Kowalski & Sergot 1986; Miller & Shanahan 1999; Levesque, Pirri & Reiter 1998; McCarthy & Hayes 1969).

“7” These sophisticated frameworks are not relevant to our purposes, though, since they share with the crude definition I presented an essential characteristic that, as we will see, sets them apart from B-events. Briefly, McCarthy situations, Kowalski events, and W-events are all defined as (possibly temporally indexed) sets of relations and functions over a given domain of basic objects, which is why the ordinary language of (possibly augmented, possibly modal) first-order logic is so well-suited to their definition and manipulation. In first-order logic there is a clear ontological (ultimately, Aristotelian) distinction between objects (substances) and their properties (as defined by the remaining categories), including the relational properties that may bind them to other objects. Since events are collections of relations among objects, it can never be the case that an event is part of the domain of objects it describes. To hold the contrary would be a category mistake: relations among objects cannot be objects themselves. This fact helps explain why the observer who is involved with W-events has a purely epistemic role to play: she chooses which relationships are relevant and which are not according to her specific epistemic conditions, including her spatio-temporal location, her background knowledge, the possibly subconscious linguistic and categorial apparatus she has been socialized into, and so on. Insofar as she is observing the world, the observer is external to it and, in particular, to the objects whose configurations the world is made of. It can never be the case that the observer, qua observer, becomes part of the worldly domain of (configuration of) objects.

“8” Let us now turn to B-events. In Being and Event, Badiou states:

“9” For our purposes, we can reduce this rather cryptic definition (or “matheme,” in Badiou’s jargon) to two conditions: (1) an event is intrinsically self-referential (since \( e_x \) appears on both sides of the definition), and (2) an event becomes such only if it is self-referentially used by the actors in the historical situation (the site X) in which it “happened.” This second condition is implied by the fact that a B-event is always relative to an evental site \( x \) that occurs itself in the definition of the event (in other words, \( x \) appears in the definition both as a subrecipient of the event and as one of its elements). Both conditions are thus different aspects of the self-referentiality of B-events and of their inextricable intertwining with the historical situations in which they happen.

“10” An example may help clarify how this self-referentiality affects the mutual roles played by observers and B-events. Luckily for us, both Gasparyan and Badiou use the same historical happening – the French Revolution. A comparison of their different treatments will make clear what separates W-events from B-events. Gasparyan notes that one of (Western) history’s most significant events should have clear temporal boundaries, yet it is difficult to pinpoint its exact beginning. On the one hand, many different interrelated events unfolded in the first few months of 1789. On the other, some of them had causes that could be traced back to other events taking place in previous years and even previous decades. In spite of these difficulties, however, historians are unanimous in choosing the Storming of the Bastille on 4 July as the
Revolution's opening act. Their decision is purely conventional, Gasparyan states, and it is guided by the need to fix the temporal boundaries of the French Revolution, lest it disappear in an ever increasing collection of smaller and smaller events. The historians need to stipulate when the Revolution began: we may say that the event 'The French Revolution' is something ephemeral, provided that a precise framework of significance and time is not stipulated, a framework within which the Revolution can be localized. That said, this seems possible when we extract some situations (the Storming of the Bastille) and sacrifice others (§41).

11 As a W-event, the beginning of the French Revolution is arbitrary, in the sense that it is the result of a free choice (or a "convention") the observers (i.e., the historians) made on the basis of convenience, political agenda, or cultural background. The argument about the Revolution's beginning could be repeated about its end (albeit with less conventional and more politically motivated arbitrariness): Was it 1792, when the Jacobins took over? Or was it June 1794, with the Thermidorian restoration? Perhaps it was Napoleon's crowning as Emperor in 1804 that terminated it, or the Congress of Vienna in 1815 that restored the Bourbon monarchy. All of these decisions, no matter how local to the historian, are never local to the event's context. In fact, there is no ontological or epistemological difference between an allegedly significant event such as the French Revolution and an utterly insignificant one such as, for instance, today's rain. The historian's discourse about the Revolution is completely external to the event, as is my definition of today's rain, its beginning, its end, and its effects on my emotional states as well as the traffic conditions. Briefly put, the Revolution as a W-event may be historically significant, as Gasparyan writes, but there are no elements in its description that may help us decide why it was and still is extremely significant within the history of Europe and the political and still ongoing discourses that originated there.

12 As a B-event, the French Revolution takes up a different character. Initially, Badiou makes the same point Gasparyan did in the previously quoted passage: it is impossible to determine when the French Revolution began and when it ended, since an indefinite number of facts could be chosen as endpoints. Badiou draws a different conclusion, though: this chronological uncertainty, he states, degenerates into an infinite series including all the "gestures, things, and words that coexisted with it" (Badiou 2007: 180) and the event (the Revolution) will dissolve into this unorganized multiplicity under our own eyes. However, it is possible to prevent this ontological dissolution of the event if we switch perspective, moving from the external observer's to the historically engaged actor's. Then it is clear that "the halting point of this dissemination is the mode in which the Revolution is a central term for the Revolution itself" (ibid, Badiou's emphasis). This happened repeatedly during the revolutionary years, when the risks, outcomes, and possible future of the revolutionary process became a central issue for the historical actors who were involved in it. This is apparent, for instance, in Saint-Just's well-known aphorism of 1794, when - in the middle of the revolutionary process, and in fact at one of its most significant points, namely, at the end of the Great Terror instituted by the Committee of Public Safety - he declared that "the Revolution is frozen, all principles are weakened." In Saint-Just's aphorism we find the first level of B-events' self-referentiality: the Revolution becomes an event only insofar as it is thematized as such during its unfolding. Secondly, the speech act that produces this thematization requires an interpretative intervention (Badiou 2007: 181). Saint-Just's words are not constative, they constitute a performative speech act based on his interpretation of the historical situation he finds himself in as a prelude to the concrete historical action that is already contained in the words he writes.

13 Replacing W-events with B-events within the current constructivist framework Gasparyan's article eloquently defends would entail expanding the purview of the local observer: it is not just that observations are always local, as events are only defined and definable relative to a local frame of reference. More importantly, events are the result of an interpretive act (a pragmatic intervention) and, therefore, are actually made. In other words, the adoption of B-events would encourage us to add an important and sometimes overlooked historical-pragmatic dimension to constructivist epistemology: the "world" is not just relative to a local observer position. It is always relative to an observer's local praxis, and to the complex web of individual and - most often - trans-individual interpretive decisions that are concretely carried out in determined historical situations.

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1 "La Révolution est glacée. Tous les principes sont affaiblis, il ne reste que des bonnets rouges portés par l'intrigue" (de Saint-Just 2004: 979). This declaration being one of Saint-Just's most famous aphorisms, it functions within Badiou's text as an exemplar of the general point he is making, as it is almost a third-order self-referential statement: as a text exhibiting the transformation of the French Revolution into an event, Saint-Just's aphorism itself approaches the status of a B-event. It is the meta-event of event-making as it emerges from the interpretive speech act of the philosopher. Similar examples could be drawn from the speeches of all of the main political protagonists of the French Revolution, from Robespierre, to Marat, Danton, Hébert, etc.
Author's Response

Denying the Global Observer

Diana Gasparyan

> Upshot • I focus on the group of ideas concerning the nature of the global observer and discuss some important terms regarding the idea of global observation. Furthermore, I address the meta-philosophical problem of how the presence or absence of the global observer influences various philosophical and scientific contexts.

1 What is peculiar is that even if the global observer (GO) existed, common local observers, just like us, could never gain a comprehensive insight into its nature. So even though the global observer would know everything for itself, it could not expose itself to others for them to gain comprehensive knowledge about it. There would be as many opinions and perceptions of the global observer as there were local observers. And in this sense, we would have to admit that there is not one but many global observers and that their number is equal to the number of interpretations and viewpoints brought forward. It seems that the discussion, which was sparked by my commentators in a subtle and ingenious way, reflects this state of affairs. The questions they ask and remarks they make speak volumes about the degree of uncertainty and ambiguity the image of the global observer is associated with as well as about the wide range of ambivalent questions that are triggered by our attempts to clarify the essence of this mystical concept.

2 In this response, I will try to illuminate this issue by incorporating those interesting thoughts and ideas that have been voiced.

How many global observers are there?

3 Once we start clarifying the issue concerning the nature of the GO, some other problems immediately come into the spotlight. In particular, we have to find out whether the GO accumulates all viewpoints generated by different local observers, since this ability is often presented as an argument supporting the concept of the GO. One of the key arguments here is the statement that contradictions associated with the concept of the GO can be eliminated if we assume that the GO simply integrates all possible opinions and viewpoints. For example, Igor Gasparov, commenting on this issue, arrives at this very solution. However, he points out that in this case the GO must be a godlike creature, i.e., it should possess supra-natural and wondrous qualities (§7). I think that even if we accepted his statement is true, we would still face the following problem: the GO that simply accumulates all possible viewpoints lacks the system of criteria that would allow it to choose one viewpoint over another. In this sense, though the GO is supposedly an omniscient agent, it would remain helpless because all events are equal to it and, were it asked what is happening at the moment, it would not be able to answer the question.

4 Manfred Füllsack’s argument, on the contrary, supports the idea that the GO should not be thought of as just a sum of local viewpoints (§7). Indeed, it is not the case that different viewpoints can be simply summed up in the act of acquisition of global knowledge. They can either mutually exclude each other or create complex conglomerates where a combination of some viewpoints creates a qualitatively new viewpoint, distinct from a simple arithmetical sum of the original viewpoints. New characteristics would appear. Füllsack’s excellent point noticeably reinforces my statement that the very concept of global observation and omniscience is inconsistent: it is impossible to know everything, since acquisition of ultimate knowledge would require excessive phenomena to be treated as equally true (as it was in Füllsack’s example of a shot-down Malaysian aircraft, where different accounts of the event could not be combined to create one valid account). In this sense, the GO indeed cannot be perceived as a collection, i.e., it is not the same as a universal collective mind. The concept of the collective mind is also not free from controversies, similarly to the concept of the global mind. Furthermore, the interpretation of the global mind as a collective mind is often used as an argument to support the concept of the GO, but, instead, demonstrates the challenges associated with it.

5 Speaking of the nature of the GO, it would probably be reasonable to agree that it should not be interpreted as just a local phenomenon, even though such rendering usually lies at the heart of the majority of classic epistemic programs, being part of traditional metaphysics. The idea that the GO cannot be always introduced as an ideal player (e.g., in a card game, as Konstantin Pavlov appropriately comments in §6) is important for us to reveal its profoundly inconsistent nature. Indeed, the standard objection used in attempts to support the concept of the GO is that an ideal system that possesses the knowledge of the best combination of moves, best solution and perfect balance of power, etc. can be envisioned at any point.

6 However, if the GO is not a collective subject, could it then be the Absolute subject in the Hegelian interpretation? Could it be that once it is identified as the “absolute knower” (as Peter Kügler suggests in his §11, referring to Josiah Royce), typical of the philosophy of absolute idealism, it would be freed of inconsistency? Honestly, I believe that the problems would still persist and they would still be of the same nature: ultimate knowledge would hamper the natural process of comprehension or action.

7 Let us take a look at another example. Let us suppose that determinism in philosophy of mind (asserting strict dependency of human actions on the physical/mental activities in the brain) is valid, and that each of our actions, feelings, or thoughts is triggered by a certain state of the brain. If this is true, it would not be difficult to guess that a free (i.e., entirely random or unpredictable) action could never occur. Imagine now that scientists made great progress and succeeded in deciphering the mechanism controlling the dependency of actions on the functioning of the brain and are now conducting round the clock monitoring of brain activities of a certain subject X by having implanted a chip in his head. Now imagine that in the course of monitoring, one of the researchers (out of curiosity) programmed the chip so that it could keep informing X about X’s prospective action. I.e., every time X was getting ready to do something, a moment before, a warning system, configured in the implanted chip, would, in some bizarre way, notify him about it. Suppose X tried to outwit the chip and, having learned what his prospective ac-
tion was supposed to be, would change the strategy: having learned that he was supposed to select chocolate ice cream for dessert, he would, instead, choose vanilla ice cream. But in fact, it would not be so easy to trick the chip because just a split second before X changes his decision, the chip would inform him of the upcoming change, i.e., this time he is supposed to choose vanilla ice cream. What would be happening in this situation? It seems that the area of the X’s brain responsible for the decision-making would be paralyzed. X would not conduct any actions at all if he knew beforehand what they would be. It seems that an action could be conducted only in the circumstances where the future is unknown because an activity results from the wish to transit from the state of uncertainty to the state of certainty. But if everything is predetermined, then it would be logical to assume that actions would become meaningless and impossible to conduct. It is easy to see that a fantastic image of X who became omniscient through the installation of a chip in his brain is identical to the absolute knower Küglèr speaks about.

« 8 » Strictly speaking, to introduce such a subject in this way, we would not necessarily have to rely on the theories concerning consciousness and the brain developed in the physicalist’s determinism, as I did in my example. Instead, it would be sufficient to say that if, under the terms of the problem, the absolute knower knew everything about its prospective actions, then we would be faced with another serious paradox – we would cease to understand how the absolute knower works. Apparently, the same system, which is true for knowledge, would apply here – if everything were known, then everything would be unclear. I think that the Hegelian Absolute subject would not be immune to the rising contradictions of omniscience either.

« 9 » However, Hegel, as it seems to me, has come up with an ingenious solution able to help us get out of such a philosophical impasse – the idea of the historicity of the absolute knower.1 The absolute knower is evolving and transits from ignorance to knowledge, from uncertainty to certainty, etc. As long as historicity is inherent in it, it is not omniscient; it, if you will, lives the life of an ordinary subject. Only at the end of its evolution would it learn who it really was all this time, but acquisition of this knowledge would coincide with an action – it would acknowledge itself as the absolute subject in the act of acquisition of knowledge. It is noteworthy that Lacan once called this property the “unconscious” of the Absolute (Žižek 1989) – it is not that the absolute knower simply does not know something, but rather, it does not realize that it actually knows it. And this is the nature of the unconscious – it is not lack of knowledge, but rather lack of realization that knowledge is present. And if we assume that the absolute has its own unconscious, then we can try to shift away from the paradoxes of omniscience.

« 10 » What is interesting is that we can try to look at the GO as if it is an ordinary observer with its own psyche, to which the global observer has unlimited access. Specifically, we can try to look at it as at some sort of self – a topic mentioned by Vincent Kenny in §§18–20. Indeed, perhaps we should not be looking for the omniscient observer in heaven or trying to create a factitious and a ghostly image of it. Perhaps it is much closer to us and more tenable than we think. Perhaps each of us can be perceived as such a creature, being a self, a subject that in traditional metaphysics is invariably defined as one endowed with self-consciousness as well as comprehensive and transparent knowledge about itself. Such a perception of the subject was popular in some branches of psychology, in particular, in the theory of introspection for some time. While introspection was in many respects abandoned, it became clear that this approach is still in demand in modern neuropsychology and neuropsychology, where they still focus on finding some kind of center, managing various neuro-states, and most importantly, able to interpret them. But it turns out that the concept of global vision does not apply at this level. Kenny writes in this regard about Immanuel Kant’s transcendental illusion, the parallax view of Slavoj Žižek and, of course, Ernst von Glasersfeld’s radical constructivism. The effect of the “black box” can be applied at the level of the inner life of a subject. We have no privileged access to feelings and thoughts of others, nor to our own. Indeed, for the first time and in a more refined form, from the standpoint of philosophy, this concept was referred to by Kant when he pointed out that our selves are also given to us as “noumena” (“thing-in-itself”). This concept is consistent with another concept, which states that for us our Self is, in fact, the same event as any others that we get a perception of by watching them as observers. I myself am some sort of narration that this Self tells about itself. Self is a sort of interpretation – but then it turns out that we are our own local observers. I believe that an important conclusion can be drawn from this thought: a local observer remains local even in the phase of introspection. Such an outcome may seem a bit disappointing (for example, I have the impression that it disappointed Kenny). However, I hardly see any reasons for pessimism here. To reinforce this belief, I must once again go back to what I have said above about the productivity of uncertainty. It seems that this principle is true with respect to our consciousness. We can reflect, process, and, most importantly, comprehend only something that we do not know. This lack of knowledge can also be introduced both as the unconscious, which I have referred to above, and as a kind of functional opacity of our consciousness. The latter can be best seen in those states where, for example, we have to admit that do not quite understand how we have solved some particular task for which we have long sought a solution but then somehow found ourselves in it. We do not monitor all the steps of the process of comprehension. Everything important, and, ultimately, the brain-work itself, just happens, while remaining our “blind zone” (Gasparyan 2014a). This is a separate topic requiring a separate study and a separate justification, but we can agree with Kenny’s idea that the structure of the Self and the structure of the GO (for example, in the role of an omniscient interpreter) are profoundly problem-prone (§§22f).

« 11 » Konrad Werner also contributes to the topic by saying that the GO can be understood in at least three ways (§3):
• The one that has the privileged viewpoint
• The one in whom all existing viewpoints are integrated
• The one in whom the enigmatic “view from nowhere” is inherent.
Indeed, all three of these renderings differ somewhat from one another and require individual exploration. On the other hand, if you study them carefully, you would realize that there are more similarities between them than there are differences. For example, if we were to think over the “privileged point of view” concept thoroughly, we would likely to arrive at the “view from nowhere” concept in the end because the term “privilege” actually combines in itself non-involvement and impartiality. However, it seems that we would have to leave all grounds and any specific place to do that.

As for the notion of the collective viewpoint, there are similarities with privilege, which can also be interpreted as the ability to integrate a variety of different opinions and viewpoints. But as I wrote above, this position is most vulnerable – collective observation seems to be one of the most controversial forms of existence of the GO. Here I can only agree with the comments of Pavlov and Füllsack.

For me the most interesting interpretation of the GO is rendering it as a carrier of the “view from nowhere.” It provides the best description of the difference between the philosophy that takes into account the point from which acquisition of knowledge begins (transcendentalism and its derivatives) and the philosophy that always skips this step and begins to speak about objects as though the speech is delivered by nobody and from nowhere (naturalism). The main rule of transcendentalism is that the conditions required for an experience (which we actually gain) to be acquired should be taken into account. Acquisition of knowledge must begin not with the study of some objects, but with the study of those conditions required for these objects to exist in that form in which we encounter them; thus the study of these conditions should be viewed as a valid beginning of the process. In contrast, naturalism always begins its exploration with the study of objects because it considers them the true origin of everything, while the question concerning conditions is considered as either not so obvious, or not far fetched (Kim 1988). This is important for my arguments because one of the fundamental mistakes of naturalism (as a rather influential contemporary epistemic theory) is its omission of a first step involving identification of the prerequisites.

Certainly, this mistake can be admitted as such only within the framework of philosophy, whereas for science it is extremely fruitful and, in fact, even gave rise to science as a special type of intellectual work. I would certainly agree with Thomas Nagel on this point he makes: the “view from nowhere” concept looks rather paradoxical and daunting, but, on the other hand, it is this concept that makes science successful and powerful. Although things are endowed with certain properties in the world of science, none of these properties can be considered an aspect of perception, and that means that science is extremely objective knowledge. Thus, the paradox of global observation in its "view from nowhere" version becomes a productive and rather heuristic (for science!) illusion, sensu Peter Cariani (§17). However, I want to point out once again that this type of cognition is foreign to philosophy, and, therefore, philosophy would rather accentuate the difficulties of such a truncated view of the world than emphasise its advantages. Therefore, philosophy should not resort to naturalistic approaches, but rather rely on the methods characteristic of transcendentalism.

Last but not least, Werner’s theory of the genesis of this concept (§8–11) seems rather fascinating. However, I consider it to be a thankless task to discuss the origins of certain concepts populating our minds, especially philosophically, as their peculiarity lies in the fact that they populate our minds perpetually, while attempts to explain their origin are tautological: to explain some concepts we have to use those very concepts to do that. But despite this remark, I should admit that the idea of explaining the concept of the GO through our ability to “take the place of the other” seems rather witty and convincing on the whole. At least we cannot ignore the fact that there is a relation between an observation and placing oneself in the place of another. For example, in §21 and §28 Kügler claims that the concept of global observation takes up the place of the concept of possible observation conducted by someone. I agree and can think of at least two other authors, Hegel and Lacan, who even taught that the very notion of subjectivity arises when you substitute yourself with someone else. A subject could not form unless there was another subject in its vicinity and, in this sense, by the time a new subject has appeared, there are at least two of them already out there (Gasparyan 2014b).

Reality, being, appearances, and events

It is peculiar how the definition of observation through the placement of oneself in the place of another transforms into the idea of reality that lies beyond all possible observations. Reality can be understood as a sum of P-locations and P-observations (Werner §§14–17), and in this case, if it derives from a certain view – concrete or possible – then the definition of reality as being something that is independent from any observations looks paradoxical (as Werner elegantly puts it, “there cannot be a view from nowhere or a view for nobody” §21). But there is a strategy in philosophy when we say that reality does not depend on any viewpoints: in fact it constitutes a basis for the formation of views (in the form of appearances) or, if you will, lies beyond them but has nothing in common with them. Werner (§22) offers a fine argument in connection with this viewpoint, saying that appearances can be compared only with each other (the same applies for places that we could occupy), but because reality and appearance are two different categories, it would be incorrect to compare them.

There are two approaches to this strategy in philosophy. The first one is to abandon the issue related to the existence of some reality that differs from other views of reality and to speak about the only reality that is accessible to us. This viewpoint could be called phenomenological since Husserl is one of its key supporters. But we also encounter it in the works of philosophers who do not consider themselves phenomenologists, such as Ludwig Wittgenstein and Nagel. Ultimately, we can find some indications of this viewpoint even in Hegel’s works.
For example, in his famous principle “fear of error is already the error itself” (Hege 1977: 43), he discourses on the call to abandon the “transcendental illusion” (if we use the apt term proposed by Kenny §6). In other words, limited only by our world, we should fully entrust ourselves to it and reject the false fiction of otherworldly truth; the immanent truth is already within us. In §§8–11 Kenny supports the idea that coherently (and even radically) considered constructivism should come to the same conclusion. This approach, which in many ways was created as a criticism of solipsism, is best described by Wittgenstein’s famous passage, “Realism is solipsism taken to its logical conclusion” (Wittgenstein 1961: 181). It is based on the same argument: if we cannot compare our (subjective, “soliptic”) view with some reality supposedly lying beyond it, would it not be better to forget about it and declare our own vision as final and ultimate, i.e., the reality? Only that is real which cannot be reconsidered, which is irrevocable and final. We are unable to reconsider our view. For us it is irrevocable and final; therefore, this particular view is the true reality. It turns out that carefully considered solipsism is, in fact, realism. There is also a second strategy, which, I believe, Werner ($22) talks about: if we cannot compare the reality (which we should now refer to as just “being”) with our views and somehow evaluate it, then we should not describe it as being phenomenal-ly closed. We should not be worried about what it is like. It would be sufficient to state modestly that it exists. Strictly speaking, this statement should not really contradict the viewpoint of a constructivist. Constructivism would possibly then be compatible with realism based on the criterion that there is something (in particular, that which is observed) beyond the boundaries of all observations. However, it is still not clear whether a conceptualist could find common ground with a realist with respect to the issue of what “being-reality” is like: whether it is defined, or not, and whether it is something or nothing. If a conceptualist and a realist can be satisfied with the minimalistic statement that “being exists,” it is not clear whether they would agree on the issue that being is just a pile of element-pixels, rather than a collection of facts (which are actually only appearances). Would then a realist accept the statement that if we want to talk about the world as being (base), then, it seems, we would have to degrade it to pure elements? And most importantly, would not such amorphous, shapeless, and event-free “be- ing” rather be a “non-being”?

« 19 » Even if you try to clear the concept of reality-being from the rhetoric of views, what shall we do with the fact that we have to raise the issue of life units, namely events? At this point it becomes important not only to clarify different concepts of the GO but also the difference in the perception of the term “event” – the second most important concept after the concept of “ob- servation” used in the present paper. Stefano Franchi (§§4–6) draws attention to the fact that the two definitions of the term “event,” proposed by Wittgenstein and Badiou, should not be used interchangeably. On the contrary, if we understand the term “event” in Badiou’s interpretation, we could reinforce the logic of our research. According to Franchi, who sides with Badiou on this issue, “event” should be understood as something performative, as a real action implemented by an actor, making the event meaningful. Such statements as “I swear” or “I promise” are not just words (concepts) denoting an action, but situations in which actions and words coincide. Perhaps this interpretation best explains the essence of an underly- ing connection between the viewer and the event, which should really be renamed as the “acting” and the “action,” emphasizing that observation is not a passive process, reflect- ing an event, but rather a process active- ly shaping the event itself. In this sense, an observation itself should not be understood as an action.

« 20 » The difference between vari- ous perspectives – the situation where we describe an event from the outside and the situation where we form it from the inside – is also significant. Partially, the difference proposed by Franchi, following in the footsteps of Badiou, echoes what Gasparov ($3) says when he proposes distinguishing an observer directly involved in the event from the observer that sees the event but does not participate in it. Indeed, this difference can be very productive. Sometimes the under- standing of what is actually happening now can radically change with a change of per- spective: instead of looking at the event from the inside, it is looked at from the outside. To illustrate this difference, consider how movie director Sergei Eisenstein reflected on Charlie Chaplin’s movies. Eisenstein noted a strange feature typical of Chaplin’s slapsticks – an unflattering, inconside- rate, and even pejorative attitude toward chil- dren. In Chaplin’s movies, children are not subjects of the usual admiration and adora- tion, on the contrary, they are teased, ridi- culed, made fun of for their mistakes, and so on. This image remains inexplicable for us while we look at it from the outside. But once we are challenged with the question “From what perspective should we look at children for them naturally to become subjects of ridicule and derision instead of fragile creatures in need of protection?” the answer is obvious: from the perspective of children. Only children themselves treat each other this way. This disturbing attitude toward children, therefore, suggests a sym- bolic identification with children themselves (Zizek 1989). Thus the formation of that which we observe will depend on the place we occupy in the process of observation – whether we want to look from the inside or from the outside.

« 21 » How would criticism of the GO affect modern metaphysics and epistemol- ogy? Kügler contends that the danger of criticism is minor because modern episte- mology knowingly rejects the image of the subject-observer as the one acknowledging and registering the state of the truth in the world (§6). The principle of correspondence between words and objects takes its place. Gasparov and Pavlov also believe that modern epistemology can do without the image of the GO, either because only a local observer is required to detect some locally-dependent events (Gasparov §2) or because they do not hold to the idea of objective truth in mod- ern epistemology as they used to in the past (Pavlov §3).

« 22 » As for Kügler’s reasoning, it must be admitted that modern epistemology, as well as other sub-branches of philosophy, tend to give up the idea of a philosophical subject and to build their systems without its mediation. As shown by Kenny ($27), radicalization of the radical constructiv-
ism of von Glasersfeld can also lead to the dissolution of the subject. In modern epistemology, the idea of the subject is becoming less and less popular; therefore, in modern epistemology there is a tendency to eliminate the concept of the subject and especially the concept of the global subject. I would call this approach – the approach of naturalism and epistemology without a subject – *naturalistic epistemology*. I would call the opposite, subject-oriented approach *transcendentalistic*. While preserving the image of the subject, transcendentalist epistemology never forgets about the “transcendental illusion” that Kenny reminds us of in his commentary. The intellectual tension between transcendentalism and naturalism in contemporary philosophy is the subject of a separate discussion. However, it is important to emphasize here that the attempts of modern philosophy to do without the subject are very problematic.

**23** Not all scholars are inclined to drop the image of the GO. Some might try to restore it, such as Gasparov. If they resort to such a restoration, it most probably will conform to the Hegelian concept of the Absolute (which is the world acquiring knowledge about itself), rather than to the concept typical of traditional Christian metaphysics, where the GO (i.e., God) exists beyond the created universe. Gasparov (§7) writes that out of all possibilities the best one is to assume a godlike creature dwelling beyond the universe and generating a steady stream of events in the universe. Ultimately, here, the GO is perceived as the creator in Christianity. We also know that George Berkeley had to resort specifically to this kind of GO to verify the existence of the world and things in it. Such a move is more theological than philosophical, since it is based on the belief that such a guarantor can exist. A philosophical solution, however, requires rational sources. Therefore, despite its greater plausibility in comparison with other solutions, which Gasparov refers to, his suggestion remains problematic.

**24** Finally, if we do not want to discard the concept of the GO completely, but do not dare to restore its rights in full, we can follow in the footsteps of Cariani and declare it a useful heuristic fiction, precisely one that, while remaining virtual, produces quite real consequences (§17). The GO can also be a virtual concept: e.g., computer reality. For example, computer games, while being an illusion, cause us to conduct real actions and experience real feelings. Moreover, if we were programmers creating computer simulations that were under our total control, we could even try the role of the GO ourselves.

**25** The often referred to “view from nowhere,” which characterizes scientists and science on the whole, is quite an effective principle of science. After Werner Heisenberg and Erwin Schrödinger, modern science is ready to make its theories more “subjective” than they used to be in the days of Descartes or Newton, but the idea of an objective “external reality” is still very strong in science. In this regard I am grateful to Cariani for the specific corrections he has made to the examples I used in my target article, in particular, on visual perception and the metaphor of the camera (§9). For the most part, these corrections reflect the situation in science, namely, the boundary of arbitrariness, constructed based on the interpretations of observers. So I support Cariani’s idea that it is better for science to remain faithful to its ideals (§15). Perhaps Cariani is also right when he makes the point that the future of science is, indeed, in the balance between one aspect (stability) and the other (convention), although this balance is difficult to achieve (§16). However, I have to admit that despite the fact that I prefer this (combined) version of scientific knowledge, I cannot quite clearly see what it might turn out to be in practice.

**Conclusion**

**26** In §26 Werner makes an important observation:

**Note that even when we reject the idea of a global observer and affirm locality, we nevertheless perform a global recognition of our epistemic situation – namely that we are always local observers. Note the intriguing tension between locality and globality. The recognition of locality is global and only observers having a theory of being capable of making truly global recognition of their epistemic and existential locality.**

I agree that it seems that the GO is criticized from a global viewpoint. We say that something is wrong with it, but how can we know? It looks as if we have occupied its place and are conducting our offensive from it.

**27** I am afraid I would have to use somewhat paradoxical statements to clarify this situation. But first, I should admit that I do not see how they can be avoided; secondly, they have long been admitted and employed in philosophy (and as Pavlov claims in §4, also in science, which has long lost its fear of paradoxes). The majority of important philosophical reasoning resembles the classic performative contradictions in the sense of Bernard Russell’s “Paradox of the Liar” (Godehard 2004). One could argue that it all started with Socrates’s well-known dictum: “I know that I know nothing.” This phrase is symbolic in two ways. Firstly, it reveals the structure of philosophical statements, namely the structure of the performative paradox or paradox of self-reference. Secondly, it expresses the essence of philosophical dealings, which lies in the attempts to understand and express what cannot be understood and expressed. It seems that from the very beginning the philosopher admits that she knows nothing and is unlikely to add anything, but later she does so nevertheless. When the philosopher says that she knows nothing, she, thereby, reveals her knowledge of the implications of categories such as “all” and “nothing,” which she allegedly did not know. In short, the philosopher is a smuggler: she transports the knowledge that must not be transported. The details of this allegation must be left for another occasion.3 Here, I can only emphasize that my own argumentation has, of course, a taint of such smuggling.

**28** However, it should be noted that to some extent constructivism, too, builds on “I know that I know nothing.” Construc-

3 In short, it has to do with the fact that philosophy does not deal with objects or things in the world, but focuses on prerequisites required for these objects and things to be the way they are. I.e., philosophy is interested in the principles of organization of the reality, and not the content (objects) found in the reality. Therefore, philosophical knowledge remains non-objective and, in this sense, ineffable. In addition, in exploring the principles of organization of the reality, philosophy is forced to apply these very principles and that is why its key provisions are articulated as paradoxes of self-reference.
tivism argues that one's experiential world is a construction, but how can constructivism know that? Does this mean that constructivism takes a position of the GO? It is hard to avoid this ambiguity, but maybe there is no need to do anything because, as I have already noted, a significant number of philosophical theories are not free of it, and in this sense we can be sure that the theoretical foundation of constructivism is truly philosophical.

"29" The dictum "I know that I do not know" is marvelous in yet another sense. It turns out that it can be read in two ways: either the first or the second part of the sentence can be emphasized. If we stress the second part ("we do not know"), we end up with the solipsistic worldview, and if we emphasize the first part ("we know"), we are faced with constructivism. When I criticize objective truth using the image of the main character of my modest argumentation – the global observer – I do not just outline the boundaries of established knowledge, based on the theory of solipsism, but also aim at making local observations (which can be productive and successfully used to construct reality, and in this sense can be powerful and influential) more meaningful and credible from the standpoint of constructivism.

"30" It seems to me that this positive part of our human knowledge, in which we are quite effective, is devoid of paradoxes. In analogy is Kant's well-known dictum: "I had to limit knowledge to make room for faith" (Kant 1998, B xxx). I think this is the main goal of constructivism: to minimize our ignorance to make room for knowledge.

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