

Andrei Rodin

Pursuit of Eternity

1. Metaphysical exposition

Most things of our everyday experience sometimes exist and sometimes not. Take a cigarette and smoke it. There was a cigarette before the smoke but after the smoke **that** cigarette was no more. Or take a pencil and draw a line. **That** line was not before the drawing but then there was the line. Those events of coming-into-being and ceasing-to-exist, that is, of birth and death of things, are really puzzling (one puzzle among others is about how much of a cigarette should I smoke out to kill it). But formally we can think about two apparently simpler possibilities which do not involve any mysterious event of this kind: 1) some things might never be, 2) other things might be always. The case of never existing things is interesting and controversial (how can there be things which never are?) but it is out of the scope of the present discussion. Our concern here is about the case of things which always are, that is of eternal things.

2. Concern for survival

We saw that logically the idea of the eternal comes easily. But for most people the idea means much more than just this logically trivial possibility. We do not care when things like cigarettes cease to exist, we don't like when this happens with our favorite coffee cups and pets but what we really don't like is to die ourselves and to face the deaths of our beloved, and normally of any other person as well. Arguably to survive, to endure one's individual existence (and/or the existence of a community and/or of the whole humankind) is **the** primary concern of humans (likewise of other animals). To be eternal and hence never die obviously wholly satisfies this demand. Notice though (as did Bergson in *Evolution Creatrice*) that to be eternal is sufficient but not necessary for being immortal: it is sufficient also to live forever in the future but still

to be born at certain time in the past. The fact that we all are born sometime and hence that there are past times without us does not disturb us (though probably puzzles) and we readily accept this fact as a convenient condition of our lives. What the concern of survival actually aims for this is to be like a Greek god who celebrates birthdays but doesn't care about funerals. Religious doctrines which teach about eternity in the proper sense offer more than the survival concern requires. The reason is to make the immortality securer - for what is born is likely to die and hence the best way to avoid death is to avoid birth.

3. Epistemological counterpart

This concern for survival has its epistemological counterpart. Very often one's true statement soon ceases to be true - it becomes false or becomes senseless. This is true now that now is between 11 o'clock in the morning and noon - but if I repeat the statement in the same room in an hour it will be already false. (Indeed the literally identical statement made in Moscow is false already now - but let me leave the spatial aspect of the problem aside.) It is true now that this piece of chalk is white but if I destroy the piece the statement becomes ill-constructed. (To repair it one should say something like this: *such-and-such* piece of chalk *was* white.) Notice that those are **not** examples of cases when someone *believed* that a statement was true, but later discovered that it was actually false. No, the above examples have nothing to do with beliefs; those are examples when a statement is sometimes true and sometimes not true.

So it goes with many everyday claims but *knowledge* is a different enterprise. To be considered as expressing knowledge (in a properly restricted sense of the word) a statement should be true not only now but always in the future. This is rather common idea about knowledge which goes back at least to Plato. The idea is to obtain long-term truths which might be communicated to others disregarding distance in space and time. (Just think what would happen with mathematics for example if the

proposition *two times two is equal to four* would be true in the morning but false in the evening.) The idea flourished with Frege who believed that any proper true *proposition* is *always* true, i.e. true eternally. Notice however that this gives us again too much: the initial concern is how to avoid the situation when a true statement ceases to be true, but whether this statement was true in the past (or would be true being made in the past) has rather no epistemological significance. In this sense the epistemological concern about endurance of true statements is quite analogous to the concern about physical survival: the future but not the past matters. In this perspective knowledge might be thought of as one device among others to increase human capacities to endure through time and to overcome an individual survival capacity. The goal is to survive together with our true statements in the future, forget about the past. But eternally true statements give us more insurance because if a statement used to be not true (or to be senseless) in the past we can expect that it will cease to be true (or lose its sense) again in the future.

Now I'm going to make few remarks on *temporal logic* (otherwise called *tensed logic*). It started exactly from what is under consideration here: feeling uneasy about Fregean concept of eternal proposition, Prior decided to build a logic which would deal with "normal" statements (as in the above examples) which generally speaking change their truth values with time. Now this became a highly specialized field of logic and for this reason cannot be analyzed here. However I have a strong feeling that the original Prior's concern was totally left aside the field by later researches. Here is a reason why: now temporal logics are considered as a special case of modal logics, and modal logics allow Kripkean many-world interpretations. To put things simply this means that the puzzling situation of *change* of truth values of propositions with time is replaced by a picture of "split" proposition every "slice" of which has its own truth value and all of which co-exist in a sense simultaneously. For this reason I don't think that latest results in temporal logic shed a light on what is touched upon in this paper.

4. *Making truth*

It might seem that the Fregean supposition of eternally true propositions is weaker than Platonic supposition of eternal entities. Supposing eternally true propositions we could then practically restrict their applicability for time periods when there exist human speaking communities and leave out the question about the status of a proposition in times when there is nobody to utter and to understand this proposition. However the situation appears to be not that easy if we accept the *truth-making thesis* which says that whenever a proposition is true there *is* something (some entity) which *makes* it true. When we deal with pure fiction it is hard to say whether any proposition is true; moreover it seemingly senseless to put the question. (Is this true that Rodion Raskolnikov killed the old woman?) To assign a true value (or at least a truth value “true”) to a proposition we must appeal to reality. We could think about some exceptions (such as logical truths for example) but for “factual” propositions the principle obviously works. The proposition *I’m making a talk* is true just because I’m really now doing this, and the proposition will cease to be true just when I’ll finish. Notice though that the truth-making thesis leaves open the question what are those entities which make this or that sort of proposition true - are they objects, events, situations or something else?)

But what about propositions which are *always* true? The *prima facie* answer is that the truth-making thesis amounts to accepting that a proposition is always true if and only if there *always* exists an entity - an eternal entity - which makes this proposition true. To avoid this conclusion we could suppose that one and the same proposition can be made true by different entities at different times. But this decision is to be ruled out by semantic reasons. Take the proposition *men are mortal* for example. We could suppose that now it is made true by all living human beings but 500 years ago it was made true by other people who now all are dead. (Leave now aside the question about the sense and truth value of this proposition in times when there were no human being

at all.) But certainly saying that men are mortal we do not mean that only our times are so unhappy that all of us are going to die; what we mean is that all the men in the past, present and future were, are and will be mortal. (Moreover, a peculiarity of this example is that the proposition *men are mortal* is made true rather by people who are no more alive than by living people.)

Consider a green apple. Suppose that this is this apple (but not another entity) which makes true the proposition *this apple is green*. Now suppose the apple changes its color and becomes yellow. The proposition becomes false. Thus if a truth-maker of a proposition changes then the proposition made true by this truth-maker might cease to be true. Not necessary though. Socrates might change his mind and exhibit many other changes still sitting and making true the proposition *Socrates sits*. Nevertheless to assure that an entity *always* makes a proposition true we should take an unchangeable one. Such eternal and unchangeable entities making firmly some propositions *always* true Plato called *ideas* (or *forms*, accordingly to another English translation).

5. *Eternal and immutable entities: laws and events.*

Let me now show *what* are those eternal and immutable entities which our knowledge is supposedly about. I think that they are of two main sorts. A modern version of what Plato called *idea (form)* is the concept of *law of nature*. Sciences account for the world where things move, change, emerge and perish. How then any eternally true proposition is possible in science? This is how. Instead of speaking about individual things science speaks about their common modes of behavior. Supposedly those modes unlike things themselves do not change. Then propositions about those modes (or otherwise *laws*) can be eternally true. What can make them true? Plato would rather reify the laws and answer *laws themselves*, but we might say instead that this is the World as a whole: the fact that things are subject to such-and-such laws is a property of our World. To make true propositions about the laws true eternally the

World must be itself eternal. It must not be unchangeable though. It might subsume changes, generations, and corruptions - provided all those are subject to immutable laws.

Another option is seemingly much simpler. Paradigmatic examples for it are to be found not in natural science or mathematics but in history. Consider the proposition *Brutus killed Caesar in Rome*. What makes it true? A plausible answer is that this is the *event* of the killing. A peculiar feature of events is that we do not expect them to change, move or perish. It is apparently unthinkable that the event of the killing of Caesar would move from Rome to Reykjavik or exhibit any slightest change. It is also apparently unthinkable that this event in time would be erased from the actual past. (It worth to stress again that I am not speaking now about our *beliefs* about this event which might be totally wrong. It might be that in the future we revise our present beliefs about it or even discover that the whole story is purely fictitious and hence that there is no such an event at all. But all this would not mean that any proposition about the event changes its truth value; this would mean only that earlier we had false beliefs about truth values of some of those propositions or of all of them altogether.) It is not that easy to answer the question of whether events exist *always* or they in certain times come into being. *Prima facie* the latter option is rather probable: an event comes into being exactly when it occurs. But taking it we would have reasons to question the immortal and immutable character of events for, say it again, what is born is likely to die. Otherwise we would have to suppose that future events in a sense already exist now which means a form of determinism. For many thinkers this price does not seem too high and determinism about future events is a popular point of view.

Thus an event seems to be a perfect truth-maker for an eternally true proposition: it does not change and never perish. Even if events are not eternal and sometime come into being it does not effect truth making in the future which is of are “survival” concern. Speaking about eternally true proposition Frege meant namely factual

propositions, i.e. propositions which are made true by events in space and time. For example the proposition *it rains* can be made eternally true or eternally false if we specify exactly where and when it rains. If this proposition is true it is made true by the event of this rain - at this place and time. What Plato hoped to find on Heavens Frege found right on the Earth. While Plato had to invent for eternal ideas (forms) a special domain Frege imposed eternity right in the world of change, generation and corruption. Isn't this too good to be true?

Of course many objections can be made against the claim that events are immutable and eternal things. One important objection is that the Fregean account of events supposes that all the past and future events can be uniformly identified by place and time of their occurrences. But this is wrong since contemporary physical accounts of spacetime based on General Relativity forbid universal frames able to do this job.

Another objection is that this is a conceptual nonsense to think that an event endures through time like an object and wonder whether it endures forever or for a finite period of time. Events do not endure through but *perdure over* time. Taking this line we could also revise the truth-making thesis allowing truth-making to work at long distance in time. This means to say, for example, that the proposition *Brutus killed Caesar* is made true not by any entity existing *now* but right by things existed in the past, namely by the *past* event of the killing. I think that something like this is necessary to accept since any factual proposition is made *after* an event which makes it true happens. (Otherwise with propositions expressing our wishes, plans, and predictions.) Nevertheless to suppose that truth-making works disregarding space and time would mean to refuse from any realistic account of truth-making (such as the causal theory of truth, for example). Besides, what really guarantees that the past does not change and cannot be completely erased?

Similar things might be said about the physical laws. The picture of the universe of particulars subjected under unchangeable laws rather suits the Classical mechanics than contemporary physical science. Among other things physics in our days approves

old mythological guesses about an event of emergence of our world but not Aristotle's conclusion (based both on theoretical speculation and empirical data such as the apparently unchanging picture of starry sky) about eternity of the world. The ontology of events and laws is too wide an issue to be further analyzed here. Let me touch upon another aspect of the problem. Plato's and Frege's arguments in favor of eternal things are seemingly similar to that of religious doctrines teaching about eternal life. The arguments go like this: this would be too bad regarding the sense of human life if there were no eternal life, hence there is eternal life. Similarly: this would be too bad regarding our wish to have a good knowledge if there were no eternal things making this knowledge possible, hence there are such things. Probably this way of argumentation is more reasonable than it seems at the first sight and I am not going to rule out this sort of arguments just because of their form. Instead I am going to question a premise that says that to obtain eternally true propositions is what we really wish about knowledge.

6. *Isn't eternity boring?*

The idea that knowledge should endure endlessly (or at least as long as possible) in time like an Egyptian pyramid is repeatedly challenged. What we like about knowledge is rather its development, its novelty but not the endless repetition of well established truths. We are inclined to find the sense of science rather in inquiry, discovery and controversy than in preservation and propagation of old truths. The latter mode of doing science and sustaining knowledge we readily call dogmatic - and the dogmatism is something opposite to the scientific spirit. (Is this a new mood which ancient thinkers like Plato could not understand? I think that historically this is quite wrong.) Regarding scientific matters *the flight from eternity* is a concern which is equally basic as *the pursuit of eternity*.

Nevertheless nobody ever suggested any tenable way to make science and to get knowledge *without* eternal truths. How a reasonable discussion about a scientific

thesis could be possible if the thesis would change its truth value out of our control - just because the world changes? Such things happen for example in actual political discussions which unavoidably proceed “in real time” changing their sense or losing any sense at all with any relevant change of circumstances (which generally speaking is out of someone’s control). But this is what we still want to avoid in science.

Science aims to treat processes of very different speed, including those which unlike political processes are much faster or much slower than processes of speech, thinking and discussing. The real time approach to such processes is obviously impossible.

How then would work our logic - any sort of it - if propositions would unexpectedly change their truth values? Suppose we make a valid inference from true premises and believe that we get a true conclusion. But it might happen that while the inference was in process the premises became false and hence (provided the rules of inference are still valid) the conclusion might become false as well. (I don’t think that temporal logics help to treat situations of this kind.)

Thus we normally have a sort of *love and hate* attitude toward eternally true propositions and eternal entities supposed to build an ontology for scientific theories (as well as history). There are different sophisticated devices invented to reconcile this basic controversy. The most popular is probably a story about potentially infinite “approximation” to truth. The story says that no matter how much we already know it is always possible to know more and to know better. This helps us on the one hand to respect eternal truths which we already got, and on the other hand to guarantee a flow of new truths (as discoveries of the new and refinements of the old). I find this popular story unsatisfactory because of feeling of bad conscience in it. We wish to make our knowledges more complete and more exact, we want to know any truth about the world but on the other hand we want to be assured that the goal will never be finally reached for otherwise we would lose our desired sense of science and knowledge which is the desire to know the new. If this is the true meaning of Plato’s

story about *Eros* as constituting scientific inquiry then we should rather dismiss scientific inquiry as an infantile and irresponsible attitude toward reality.

Popper's suggestion (used as an argument in his battle against Plato) goes in the same vein. To avoid dogmatism about eternally true propositions Popper relies on the hope that anything what is believed to be true in time appears to be actually false. Notice that Popper does not mean that a true proposition might change its truth value and *become* false; he only hopes that our *beliefs* that a certain propositions are true will change for some rational reasons. To make the hope real Popper suggests restrictions for allowed propositions which rule out propositions which are justified too good to suggest any possibility that they are false. Then the change of beliefs about propositions makes science vivid. The bad conscience in this project is even more striking than in the former: a safe way to make science after Popper is to suggest obviously false propositions, discover that they are false and exchange them for other false propositions. (Though Popper is rather right thinking that to tell the truth is to take a risk.)

7. *Repetition*

Now I am going to suggest what I think is a better way to reconcile love and hate toward eternity in epistemological matters. The idea is this. (It was hinted at *Differance et Repetition* by Gilles Deleuze.) The most significant changes and novelties in history of sciences happen *not* when anew discovered facts are added up to previously established knowledge, nor when the old knowledge is refined. The significant changes happen when the old knowledge is substantially *revised* from its very basics: this is the meaning of a scientific *revolution*. But this still means that old concepts are *repeated* but repeated in a new and non-trivial way. This sort of repetition on the one hand always gives us a sense of the new but on the other hand allows identities of concepts and their endurance through the repetitions and hence through time. Even ruling out the idea that such an endurance is literally eternal we

can be interested in continuing it as long as possible without giving up our love for new discoveries and our hate of the old dogmas.

Indeed the concept of repetition is basic for the issue which is touched upon here. Identity of a proposition is build with a repetition of utterances by which the proposition is expressed. And though to express the same proposition the utterances should not be literally identical, this mode of repetition is still very trivial. Less trivial mode of repetition occurs when *the same reasoning* is repeated: think for example about the same mathematical theorem proved by different people (not even necessarily independently). Different formulations of *the same* proof allow much wider range of variations than different formulation of the same propositions. The next step is to make different formulations of *the same* theory. This can be done already in very non-trivial and interesting way: think about the matrix and operator formulations of Quantum mechanics or about the reformulation of ancient synthetic geometry by analytic (algebraic) language made by Descartes and his followers. In such cases the question of identity of a theory becomes complicated (is the synthetic and the analytic geometry the same theory or two different theories?) but in some important sense the identity still remains. (We can even speak about certain theorems as expressed in synthetic and analytic languages.) Finally, a revision of the most general theoretical principles relevant not only for a certain theory but for many theories, might be a fascinating renewal of thought. (By the way, I think that such a *repetition* - i.e. revision - of general principles is of special concern of *philosophy* while particular sciences and branches of knowledge are more concerned about establishing and accumulation of facts and theories.)

What then about Fregean *eternal truths*, i.e. eternally true propositions? Of course we need propositions whose truth values are stable enough to allow a rational discussion. But I think that we do not need propositions which are *always* true, nor should we be interested in getting propositions which remain true as long as possible. As I already have said, the sort of repetition which constitutes the identity of proposition is rather

trivial one and we should not grant it too much. We cannot avoid it at all in favor of non-trivial “revolutionary” repetitions - just like we cannot avoid the literal repetition of words and phrases for otherwise a language communication would be impossible. But we should not still take identities of propositions too seriously - as well as literal identities of words. We should rather properly *limit* identities of propositions to get more important identities, like that of a theory or of a branch of science - just like we limit literal identities of words and phrases to get the identities of propositions. Instead of making propositions eternal we should rather think how to do logic *locally* - to allow to cope with propositions whose significance is limited in space and time. The crucial question for such a project is how to allow different local propositions to communicate with each other (with the absence of a global frame). The model of General Relativity which allows only local frames of reference might be helpful to answer this question.

What about ontology behind the suggested concept of ever renewable knowledge? Truth-making thesis in its original form does not apply in this case because it accounts only for (true) *propositions*. And what is “true theory” is a more difficult question than what is a true proposition. Is there any enduring entity which makes true an enduring true theory? I am inclined to answer positively, but let me avoid further elaboration here. One thing seems clear: while the endurance of true propositions paths the way to dogmatism, the endurance of thought via its revision and renewal saves its sense of (and power for) radical change. This means, I believe, that we are quite interested in pursuing this sort of endurance getting rid with the idea of progress of knowledge directed toward an undesirable end.

8. *Sense of death*

Now let me return to moral issues and use the analogy between our survival and epistemological concerns in the opposite direction. Being put in new terms the analogy was between the concern to keep one’s personal identity and the concern to

keep identity of a true proposition. Of course the analogy was loose: identities of a person and of a scientific theory might be equally compared. What is important however is our epistemological conclusion that limiting certain identities in time (like that of word or proposition) we get more interesting identities (like that of a theory or of a branch of science.) This allows to suggest that the fact that our personal identities are limited in time is not just an unfortunate existential condition of human life to be overcome by any possible mean but a condition for a non-trivial development of humanity or even of biological life as such.

This claim seems to be easily interpreted as one in favor of the priority of survival of a community (or the humankind as a whole) over anyone's individual survival. But this is true not in a moral but only in a simple biological sense: of course if the humankind would consist of a fixed number of individuals and were not able to give birth to new ones then it would be much less endurable than it actually is and would likely die off very soon. The moral sense of the story is rather that the death, i.e. the limitation of one's identity in time is not necessarily a bad thing. This equally applies to persons, human communities and even the whole humankind. But this is not to say, of course, that death is always a good thing. Coming back to epistemological issues we can make a difference between a revision of knowledge which results in its renewal and just a oblivion, a simple brake of knowledge (because of social reasons, for example). I guess that a similar difference applies for persons, communities and the humankind. Thus the real issue is not about whether to die or to live, to be or not to be but about how to do both things properly.