MY JOURNEY

ARON KATSENELINBOGEN (1927-2005)

In memory of Aron Katsenelinboigen, a Professor of Wharton School, my Teacher and Friend, a Philosopher whose life was more powerful than death.
My airplane crossed the ocean, and now I am on the other side of the earth, six hours ahead of my usual time. But I still don’t know the future, even though I am in the “future” compared to my friends and relatives left behind. So, I’m not going to know the future of these six hours on the other side of the planet. I am not going to “live back” these six hours upon my return, either.

The six hours that are gone are irreversible.
My journey began with sorrow.

There is nothing in the world more frightening than irreversibility. We mourn only for something that will never return. When life gives us no chance to repeat the precious moments, we grieve.

Irreversibility kills the hope for the return. At the same time, it begets belief and faith, a paradox only love can solve.

The history of human progress could be also described as an attempt to overcome irreversibility through finding the elixir of life. Science, art, and religion tirelessly work on the ways of fighting irreversibility.
My dear friend is gone.

A few days ago he called me to see how I was doing and to exchange some thoughts and ideas. He was a philosopher, a great one. He knew that time was as precious as everything irreversible. He thought his presence momentary. I thought his presence timeless…

Who was he to me – my friend? My father? My teacher? In the world of deep human attachments definitions don’t work. Now, when he is gone, and I travel from country to country, and from one recollection to another, I realize that all definitions regarding human relationships invariably “cut” uniqueness, as a gardener cuts uniqueness of growing bushes, shaping them in a standard way.
Aron’s theory of predispositioning appeared as an alternative to the probabilistic method. His main question was: “How to evaluate something which is unique in essence?”

Aron dedicated his scholarly life to elaboration of the calculus of predispositioning versus probability. Probability works when statistics are at hand. But what to do with unique cases when no statistics are available? How to make evaluations? Based on what? Should we crop uniqueness and focus on similarities, or should we rather elaborate a new approach?

The latter would be much easier. Unfortunately, it does not always work.

Aron writes:

“A much more challenging problem arises when there are no statistics, stochastic programming or sequential analysis to generate probabilities, considering especially that sequential analysis starts with some a priori probability distribution and may take an incredible amount of time or resources to produce an optimal solution. Additionally, there may be unique situations that by definition preclude any reliance on frequency of events whatsoever. In this case, rather than observe a highly uncertain behavior of individual objects, we look at the behavior of the total ensemble formed by these objects, since the latter, generally speaking, are more amenable to statistical patterns; in other words, we reduce a unique situation to some previously known one by stripping the former of its specific unique features. This, however, is a pretty risky procedure since the specific features of a unique event could be quite significant, and eliminating them might result in a drastically distorted estimate of the likelihood of the situation occurring.” (Katsenelinboigen Concept of Indeterminism 27–28)
Aron elaborated his approach to the evaluation of uniqueness. He called it “calculus of predisposition.” I say “approach” because he was against programs that would provide one with a certain set of methods for decision-making.

Based on the game of chess, he showed a variety of styles and methods, as well as a structure of values inherent in the evaluative process, explaining how all this could be combined and applied by different players.

Aron pointed out that though styles and methods are objective, their implementation requires subjectivity. According to him, evaluation is a subjective act that can’t be objectified.

Aron defines subjectivity as “the impossibility to separate the evaluation of an object from the person who will further elaborate it.”

In his article, License for Subjectivity, he writes the following:

“Several years ago I presented a dinner-lecture Strategic Positioning of a Corporation for the top executives of Mars’ electronic division. After the lecture one of the vice presidents thanked me for the presentation. This looked like a pure formality. But then he added: ‘You gave me a license for subjectivity.’ This remark reflects the deep understanding of my message and I have taken his thanks seriously.”

Aron’s concept, as advanced in its main statements, was applied to psychology, biology, physics, and economics, and, of course, literature and art. Still, his era awaits its future.
Being unique, Aron worked on uniqueness and was very sensitive to the uniqueness of others. He claimed that uniqueness was not something exceptional – to him, it lay in the nature of things. More than once he emphasized that no two creations of nature were identical, though we often neglect this fact in the sake of simplicity.

Indeed, even two apples from the same tree have slightly different flavors. This affects the taste of every new apple pie made in accordance with a general recipe, which means that “recipes” don’t guarantee the same results, due to various small deviations inherent in the “ingredients” involved in the “cooking.”

In the same way, the “pie” of life can’t be “baked” using a program.
A neglect of uniqueness and the temptation to unify variety through “cutting” deviations lead to unexpected outcomes.

Aron distinguishes between mistakes and unexpected outcomes in the following way. Mistakes occur because of one’s unfamiliarity with existing rules. Unexpected outcomes occur as a result of one’s poor evaluation of a unique situation when no rules exist.

One of the most famous cases of an unexpected outcome in science is described by Edward Lorenz, a meteorologist, who wrote a basic mathematical software program to study a simplified model of weather.

Lorenz’s study concerned the rise and fall of an air current heated by the sun. His expectation was that by running the program he would receive exactly the same results after inputting the same initial numeric values, since the nature of a computer was deterministic. How surprised he was after seeing that his hopes were not justified! Each time he ran the program the result was drastically different. Later while analyzing this situation Lorenz realized that the initial values he input each time had small deviations. He didn’t expect that such insignificant differences might drastically change the result.

He faced what Aron called the unexpected outcome.
Aron’s emphasis was on the changeableness of life, its indeterministic nature that constantly produces new forms. He started his research with economics – an extremely dynamic field subject to quick changes and the appearance of new products. It is from economics that he understood the necessity to elaborate a new technique for evaluation of unique products.

Later he successfully switched to other fields, and applied his concept of the mechanism of inner changes to cancer, proposing a new perspective through which this disease can be analyzed (but not treated). The treatment should appear as a result of a deeper understanding of the character of the disease, of its basic mechanism that for now seems obscure.

Aron always said that conceptual thinking is necessary while approaching such complex problems as cancer. He published his book on it, and exchanged his ideas with some leading scientists working for the Fox Chase Cancer Center.
Talking about social and economical systems, Aron always stressed the importance of the semi-balance as a condition for future development. A complete balance is as dangerous as a complete imbalance, since the former leads to stagnation while the latter may produce chaos. Aron’s theory of predispositioning, therefore, deals with the stage that lies between complete order and complete disorder. A semi-balanced system allows splashes to appear, which guarantees the changes necessary for the system’s development.

At the same time, semi-balance prevents the system from falling apart, unlike the imbalance that would not allow it to survive splashes. The entrepreneurial activity which introduces various innovations, both technological and organizational, is the vivid example of a creation of disequilibrium necessary for a social and economical system’s development. (Katsenelinboigen, 1997)
Flesh cannot be revived.
Soul cannot be erased.
Death is stronger than life.
Love is stronger than death.

Anything that is completely balanced is dead. At the same time, death is linked to disintegration. From this it follows that death is a combination of two extremes, and extremes don’t develop.

Life is an intermediate stage between a complete balance and a complete imbalance. It develops gradually from one stage to another, creating predispositions for the appearance of new forms. Among all creations, the creation of the imaginative mind is the most astonishing.

Imagination is an engineer that works on improbabilities. Fighting irreversibility is its specialty. The first great invention of imagination is soul – through it the entrance to eternity was opened.

Love ignites imagination.
What is the meaning of life? Is there any?

Nature is senseless. It only cares about producing new species, and this is its only goal and meaning. It thrives without stopping, splashing out its creations like a mad artist who has no inner censor. Each smallest entity that comes out of it is unique, like our fingerprints. Nature, however, doesn’t care about preserving uniqueness. For that, God was invented.

Nature promises development. God promises survival. Man needs both.
Who created whom?
If Man created God then this was in accordance with evolution as seen by Darwin. The human intellect appears as a result of nature’s unconscious desire to create an intelligent creator and, owing to that, develop in a new way. At this point, nature creates a predisposition that allows the appearance of more advanced organisms.

Very often people think the presence of an intelligent creator is necessary to organize diversity into a system. However, it is not so. Generally speaking, “a system is driven by vertical and/or horizontal mechanisms. Vertical mechanisms involve subordination; horizontal ones are predicated upon parity of the interacting parties.” (Katsenelinboigen, 1988)

At this point, variety can be organized through local interactions (a horizontal mechanism of management) – the way nature works. In social and political systems we can observe both methods of ruling society. As Aron states, “democratic systems typically embrace the horizontal mode, epitomized by the discontent expressed by the population. Authoritarian systems gravitate toward a vertical method of assessing a predisposition in the frame of a style which is intrinsically goal oriented and seeks to objectivize the results.” (Katsenelinboigen, 1997)
So, the human intellect could be created through the horizontal interactions between the species.

The human intellect enriches the universe with many inventions which would not appear otherwise. But the biggest invention that is a prerogative of human mind is the creation of cyber space.

Cyber space is a bridge between the present and the future, between a desire and its realization, between the eternal and the momentary. This is the space of human desires and beliefs – a “womb” where they develop until they are ready to be realized.
God in the Old Testament also creates through cyber space: light appears, first and foremost, as an idea of something opposite to darkness. The Word becomes a condensed concept of what light is, but no word comes before thought. So, it would be logical to assume that in the beginning a Dream developed into a Thought, and then the Thought came to its realization through Word and Deed.

Dreams generate cyber space. Cyber space develops space.
Cyber space produces a network of intangible imaginable relationships with the outer world. This way we prepare our dreams to come true.

Our first interaction with the world starts in cyber space when we imagine things we read in fairy tales and stories and use them in games, thus, implementing imagining. When we grow up we develop our cyber space, creating models of our interaction with the universe. Before starting anything we create models of its realization, playing with different possibilities and outcomes. The richer our imagination, the more sophisticated cyber space we produce, the more interesting our life becomes.

In Aron’s terms cyber space would mean a creation of a predisposition for future development.

There are some meetings that bind people forever. Occurring by chance, they develop into something really important and unforgettable. So the question arises: were they meant to be or did they happen by pure chance?

I met Aron no sooner than I was prepared to do it. My dream to find someone to discuss things in which I was highly interested came true at the time I was ready for that discussion. What was it – a divine providence, a lucky chance, or the result of a well-developed predisposition?

Years ago I would vote for the first two. But how many people stopped by at my teacher’s place to have a conversation with him? Their number was great. Most of them were very excited and inspired by his innovative thinking, but it was only I who decided to continue working with him on a daily basis. Our meeting was the beginning of a new phase of the development of his concept.
More than once Aron joked that God should’ve had a hand in our meeting... I think God gives chances, but Man makes choices.

The decisions of Man are based on his predisposition that includes his ability to interpret the degree of meaningfulness of everything that occurs to him. Those who ascribe no significance to anything that happens in their lives make their decisions accordingly.

Aron’s concept of predispositioning made me think about fate and chance – two main categories around which the discourse about free will expands.

I realized that when people call one “lucky” they emphasize the exclusive role of spontaneous outer influences. Accordingly, if the influences are considered programmed from above, one blames or praises fate. As a rule, a predisposition of the decision maker is ignored since the power of the outcome is ascribed to outer forces.

However, any chance occurrence must be considered in combination with a person’s predisposition. Aron states that chance occurrences are absorbed by a certain predisposition that influences the outcome. This explains why similar events may have the opposite effect on different people and situations. Sometimes chances “lucky” for one turn out to be “unlucky” for the other.
The positive or negative sign of chance occurrences mostly depends on a decision maker.

All these ideas acquired their further elaboration in my course “Fate and Chance.”

Aron didn’t believe in predictions. This would contradict his concept of predispositioning, according to which the future is not given, but gradually formed. Aron showed that even God didn’t know the future. Otherwise, he would create better human beings whom he would not need to punish by the Flood. Indeed, no creator would spend time and energy on creating something which he would definitely destroy in the end. This would make no sense.

Still, I’ve been constantly thinking about the nature of predictions, wondering why some of them come true.

I did realize that most of them were so general that they could’ve been applied to anything and anyone. I had no interest in such kind. Nor had I interest in discussing possible falsifications when a “prediction” was made after the event occurred.

I was interested in a different kind.

I started with the question of why predictions are so popular.

My answer was that making a prediction is another way of overcoming obscurity.

Since the future is unknown it is important to give it a “shape.” Otherwise it would be difficult to deal with the present, since one must see how his current moves will be connected to the remote goal. So the future must not be shapeless.

At this point, predictions work as a cyber bridge between the present and the future.

Most importantly, they function like scenarios which “seek” for their “directors” to “stage” them when the time comes.

Among those who read predictions, especially in religious books, there are fanatics willing to implement some “holy” ideas based on their religious belief. They would follow word by word the “scenario” written centuries ago in order to become “soldiers of fate.” This also gives their life meaning.
In most cases (and I do leave a space for some special cases which require a different discussion), predictions are not predicted but staged. Started in cyber space they could be realized through people’s will.

“Fate” is an invention of those who believe in a programmatic way of structuring life.

Basically, predictions create a predisposition to a certain flow of life, but a predisposition is not a predetermination.

Nature has no intellect but great power. Human beings have great intellect but poor power. To solve a task they must create something greater than themselves – greater in both intellect and power.

So they create God, and the problem starts there because God immediately imposes limitations on the human race, teaching it how to behave. The advantages is that God promises eternity and survival.

But how about development?
Imagine the eternal existence with no changes. It would be like living in ditchwater forever. To a creative mind, such a heaven is equal to hell.

And what about soul? Is the soul supposed to be creative in the afterlife? If so, this may present a threat to the Kingdom of God because any creativity, including divine creativity, is linked to unexpected outcomes.

As Aron showed, God faced unexpected outcomes more than once, which aroused great anger in him.
If God created Man than he did it without knowing the result.
In his book on the developing God Aron formulated seventeen questions from which it followed that God in the Torah was indeterministic and developing.

Here they are:
“1) Did God have a final goal that guided Him as the creator of the universe?
2) Why didn't God create the universe instantly, why does it take Him six days?
3) Why didn't God state in detail his plan or program of creation of the universe if it is a prolonged process?
4) Why did God act by stages (substages) each time (day) announcing the purpose of each stage (and only of some substages)?
5) Is God an entity that also has feelings or is God making only rational decisions?
6) Why was it necessary for God to evaluate the results of His work during the first six days?
7) Is "good", as the 'local' criterion for evaluation of the intermediary results of the process of Creation, equivalent to "beauty"?
8) Why does the Torah contain two versions of the creation of the Universe including living beings (respectively Chapter 1 and 2 in Genesis, the first book of the Torah)?
9) Why in the Chapter One of Genesis is mentioned that God created simultaneously a Man and Woman and in the Chapter Two - a Woman from a Man? And related to it is a question: “Why did God create a Woman from a Man?”
10) Is a human being the climax of the creative universe?
11) Why God have forbidden Adam and Eve to eat from the Tree of Knowledge?
12) Why does not an omnipotent, omniscient, and omnipresent God combine good and evil?
13) Can a Creator with the power to foresee everything destroy His own creations?
14) Why does God, seeing the wickedness of the serpent and distinguishing between clean and unclean flesh in general, chose to tell Noah to take all the animals along and save them from the flood in order that they may multiply afterwards?
15) Could be the preservation of the Jewish nation done beside the Promised Land that is mentioned in the Torah?
16) Why is God willing to engage in a struggle with Man (Jacob) and accept criticism from a Man (Moses)?
17) What prompted God to impose unconditional demands upon the conduct of the Jews including the 10 commandments while at the same time making these demands conditional (situation-specific) with respective rewards and punishments?”

Aron’s answers to these questions were quite unique and intended to an innovatively thinking reader.
Our friendship began with a discussion of the creation of the world. My interpretation of God, Adam, and Eve amazed Aron; likewise his ideas fascinated me.

During this first meeting we realized how close our interpretations were and how enriching our exchange of ideas was.

So we continued our discussions next day, and then next day, and then we talked about it a day after… As a result of it my book “About Angels, About God, About Poetry” appeared.

This conversation has never stopped – it still continues regardless of Aron’s death.

I’m walking along the road which could be just a road or the Road – a metaphor for my life – and I think about the meaning of life.

In the myth God provided Man with clothes and the Ten Commandments, but he did not provide him with the meaning of life. It seems that he wanted Man to find it himself.

This would be in accordance with God’s creative nature – a creator wants to continue his creative development through his creation.

If Man created God this statement is still valid.
Unlike God, Man did provide the Creator with the reason for his omnipotent presence in the universe. Therefore it seems that God doesn’t search for the meaning of life. Or does he?

Who is God – a ruler or a creator? If God is the latter then he must search for the meaning of life, as well, since the search for the meaning is an integral part of any intelligent creation.

If God created Man then he needed him as another interpreter of his deeds. This explains why he asked Adam to give names to all animals and plants.

According to the myth, Adam was created as a simple farmer of Eden since “there was not a man to till the ground.” Thus, Adam was not supposed to do any intelligent job.
Soon, however, he was approached by God with a very strange request to name all the living.

Naming requires interpretations, and the interpreter is a co-creator. Thus, Adam was pushed to act as another creator, not just a worker.

This suggests that Man’s goal is to interpret the Book of Life in order to obtain the meaning of it.

The meaning of life can’t be given, nor can it be “found.” It should appear as a result of Man’s ability to create a holistic vision of chance occurrences in order not to end up in chaos. Therefore the meaning of life is not a discovery, but an invention of the intellect.

Searching for the meaning of life means creating it.

Man is an interpreter of God’s deeds. God is an interpreter of Man’s deeds. The interpretations are subject to change.
OBSERVING ETERNITY

God’s figure doesn’t make Man’s life more meaningful. It makes it only more secure. Even in afterlife Man still could be puzzled by the meaning of his existence, as well as the existence of the universe.

Eternity only sharpens the question of the meaningful and the meaningless.

Therefore, the meaning of God seems more or less clear: God exists to preserve diversity and to keep semi-balance in the universe. At this point, Man is a significant stage in God’s development. Establishing personal connections with Man, God learns more about his creation and, thus, about himself – his emotions, his power, and his blunders. Aron shows that in the Torah God develops on both emotional and intellectual levels, admitting his mistakes and promising not to repeat them henceforth as he did it with the Flood.

God in the Old Testament appears as a dialectic of life.

The meaning of life is still obscure.
A predisposition takes a crucial part in overcoming obscurity. Since the future is unknown it is impossible to program our steps from beginning to end. One should learn, therefore, how to make his decisions in uncertainty in order not to end in fiasco.

Aron elaborated a systems approach to dealing with disjointed indeterministic systems, and described styles, methods, and structures of values that decision makers apply to their strategic thinking.

Referring to the game of chess as a metaphor for decision making, Aron, however, always pointed out that one can only be taught how to play chess, not how to become a master. Becoming a master is a subjective factor of one’s predisposition.

Aron’s theory, therefore, is aimed at increasing one’s creative thinking, not providing one with a set of rules and dogmas. Those who expect the latter will be confused and irritated by Aron’s “license for subjectivity.”
Generally speaking, we live in the indeterministic world to which deterministic schemes cannot be successfully applied.

The ability to see deviations and give them significance is a prerogative of literature and art, not of science.

Naturally, science tends to unify and objectivise phenomena in order to operate the manifold in a programmatic way while art (including the art of the word) is focused on uniqueness.

Artists and writers are very sensitive to all sorts of deviations, however insignificant from the point of view of scientists who rather focus on similarities.

Science works with probabilities, art deals with predispositions.

Artists struggle to produce unique models. Therefore no work of art is alike, no literary character is similar. O’Henry’s stories are the best examples of how the habit of thinking in probabilities leads one in a wrong direction. The reader of O’Henry’s stories who thinks in probabilities is always puzzled by unexpected outcomes. The parallel to life is clear.

Regardless of their differences, art and science have something deep in common. Both are based on imaginary/hypothetical categories and belief.

The difference lies in method of operating the system. Both use programming, spontaneity, and predispositioning as methods, but while science mostly deals with programming art is based on predispositioning.

Thus, the opposite leading methods of art and science explain their different philosophy of the world.
The most fundamental imaginary category of artistic domain, including religion, is the soul.

The most fundamental category of science is the atom that was hypothetical and invisible and owing to new theories and hypothesis changed its meaning from “indivisible” to “divisible,” and later physicists introduced a new term for indivisible units that they propose to call elementary particles.

This suggests that scientific theories, no matter how convincing and working they may seem for the moment, are hypothetical and subject to change due to the indeterministic nature of life.

Aron didn’t believe in Truth. He was a proponent of Hypothesis. He always opposed these two categories, saying that open-mindedness comes from understanding of the hypothetical nature of speculations and conclusions. Therefore, both of us voted for dialogue, not argument.

Owing to Aron I concluded that if “truth springs from argument” then the illusiveness of truth springs from dialogue.

This makes me think about the nature of the experiment – is it a verification of a scientific hypothesis or is it a realization of it?

Is the experiment a discovery or an invention?
To me it’s the latter.

Indeed, the experimenter deals with modeling: he models the situation on all levels – from theoretical to practical. At this point, he could be compared to a director who stages plays or scripts. First, there must be a concept (which is analogous to a script), then one should think about conditions in which it could be realized, and after that the realization begins.

At this point, the experiment is as much a verification of a scientific concept as the theatrical performance or a movie is a “verification” of the literary material. Both are inventions and both can be applied to life the way predictions or other artistic models do.

The experimenter doesn’t discover phenomena but “invents” them in his lab. Indeed, it would be ridiculous to assume that fire is “discovered” in the stone or the lightening is “hiding” in the skies. Both appear as a result of the interaction of certain elements and objects with each other. It seems, therefore, that phenomena are mostly “produced” during experiments, and after that they begin to serve civilization. This is also in accordance with the basic position of Quantum Mechanics.
Nature knows no discovery, only creation. Man knows both. Discovery is mainly linked to things while creation includes both phenomena and things. On the meta-level, therefore, everything is about creation, including discovery, which is a starting point for creation. Stones, minerals, stars, and planets are discovered, but space is created.

The learning process belongs to discovery. Cognition is linked to creation. Was the Tree of Knowledge a depository of information or was it a combination of information and creative ability?

The first human invention appears right after Adam and Eve tasted the Fruit: they created “clothes,” covering their bodies with leaves. Thus, their first knowledge about their nakedness was followed by their first invention.

In Russian, the Tree of Knowledge is called the Tree of Cognition, and it seems to me that this translation is in accordance with the function of the Tree as a catalyst for invention that follows the acquiring of some basic knowledge.
We invent our universe and our relationships with each other based on our predisposition. Cyber space is a medium that nurtures our dreams, hopes, and beliefs. In cyber space we overcome the distance between each other, both spatial and temporal, with the speed of a thought. This is the space for people’s inner closeness that should be measured in heartbeats.

One heartbeat is a unit of measurement of cyber distance.

Those who are tuned to the same wavelength perceive the “messages” from each other in a beat of a heart.

My journey knows no end, for this is a journey of a thought. Oh, how many times I traveled there with my teacher, switching from one topic to another, like a wanderer overcoming the borders of exotic countries! But it was not a chaotic jump for us. Nor was it preprogrammed. Every conversation prepared a predisposition for our future mental journey.

I believe in the future, and with this conversation I prepare a predisposition for my new dialogues with Aron. Cyber space knows no irreversibility.
I started with grief, but I suddenly remembered Aron’s laughter and his love for our discussions, and I realized how much he would be disappointed by seeing me grieving. Strong people suppress negative emotions, weak people suppress positive emotions. It sounds like a paradox, but this is true, because a weak person thinks of how to defend himself, and his biggest fear is to appear weak by showing love and kindness.

“Do you agree with me?” I ask Aron.
He is smiling. He knows why I am saying so. He likes my logic because it is life-asserting.

I choose to be strong. I choose to be positive in my thoughts and emotions. I choose to celebrate his life through a continuation of our discussions.

We walk along cyber space, together again. The distance between us is one heartbeat. But what about cyber time? How should it be measured?
He smiles again and we leave this question for our next discussion.

V. Ulea (Vera Zubarev),
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