

Following Spinoza's conjecture and image: Representativeness and availability as generators of conscious errors in space and time

Abraham Mounitz

Zefat Academic College, Israel; drmounitz@gmail.com (A.M.).

Abstract: The article will present an intertextual encounter between Spinoza's approach and the work of Kahneman and others. on cognitive bias. The discussion will focus on the link between imagination and memory and space and time as well as the former's association with representativeness, availability, and occasion noise as the causes of bias in both systems of thought. Spinoza determined that the manner of human thought has common traits but also that there is thought which accords with reality alongside thought which is erroneous. Like Spinoza, contemporary theory also seeks to address the causes of such erroneous thought and to offer remedies for its prevention.

Keywords: *Availability, Biases, Imagination, Inadequate-idea, Memory, Noise, Representativeness.*

1. Introduction

The present article offers a view of Spinoza's approach to heuristics and bias in decision-making considering Kahneman and others' work. [1]

The study of decision-making is presently one of the most important engagements of humanities and social science scholars. On the individual level, we are concerned with a matter which pertains to every human as an organism that seeks to exist. On the social level, every officeholder or citizen of a country makes countless decisions every day, every hour, and every moment. People decide, whether consciously or unconsciously, whether or not to cross the road, to overtake another vehicle, to marry, to divorce, which education to provide for their children, to purchase a product, to prefer a certain food etc. As officeholders, we often determine other people's fates with our decisions, as is the case with scientific research, with medicine, with national security, with politics, with investments, and even within the family. The fate of many is often placed in the hands of a single decision maker. Assessments and judgements, whether affirmative or negative, are the heart of the decision-making process on all levels, to the extent we might state that "I decide, therefore I exist". After a decision is made, it is possible to examine the manner of its formulation and to determine its value—whether it was made as a result of a realistic view of reality or in accordance with the structure of the decider's personality. In their latest research, Kahneman et al. refer to a decision made by a person on the same issue on different occasions as "occasion noise" according with the person's psychophysical state and in her or his relation to environmental factors. Did this person fit her or his perceptions to reality as it is (i.e. to objective reality), or did she or he skew reality to fit her or his personality structure and state, to her or his worldview, and to her or his beliefs (i.e. to subjective reality)? [2]

The analysis of human consciousness such as to distinguish between space and time as the constituents of thought did not begin with modern scholarship. Even as early as the mid-17th century, Spinoza analyzed the operation of imagination and memory as the cognitive representatives of space and time [3]. In his *Treatise on the Emendation of the Intellect*, for example, Spinoza explains the nature of an "...imaginary space where there are no bodies..." [4] A space with no bodies is a fiction but can be imagined anywhere by way of reflection. By the same token, it is possible to recall events that took place

in reality or that were imagined on a timeline which is a human product in and of itself and an aide to human imagination [5].

While Spinoza does not develop a discussion of space and time as being *a priori*, he does perceive time as an abstract entity which serves as an auxiliary to the force of imagination. Time does not possess its own reality, and its characterization as a conscious means of determining the position of events in order is contingent upon the context of its relation to the motion of a given body such as a heavenly body or a clock that was set according to and which moves in line with the motion of said body [6].

This, in turn, was used by was used for Spinoza’s analysis—via imagination and memory—of the various aspects of error as it is manifested in human decisions and for his treatment of space and time as an (Intra-conscious) background for a discussion of the causes of bias and error [7].

Spinoza, who was one of the pioneers of the systematic analysis of judgement and conscious biases, was concerned—among other things—with the perfection of individual capacities in this respect.

Kahneman and Tversky’s work establishes “representativeness” and “availability” as fundamental concepts pertaining to cases of judgement under uncertainty. These concepts, in turn, relate to intra-conscious space and time as two factors which exert an influence on the shaping of reality and on decision-making. Specifically, representativeness refers to the act of retrieving an item from the imagination and availability to retrieval from memory—two internal processes which affect a person’s perceptions of the images of objects in conscious space and of the events outside it in conscious time [8].

In what follows, we will see how the conceptual scholarly discussion of representativeness and availability as a source of biases as in the cases of “misconceptions of chance” (Kahneman (2011): 422-423), “the illusion of validity” (ibid.: 209-221), “biases of imaginability” (ibid.: 426), and “illusory correlation” (ibid.: 426) accords with Spinoza’s analysis of imagination and memory as causing “misconceptions of chance” (i.e. distorted pictures of reality).

It is therefore not too difficult to notice the logical and lexical connection between representativeness and availability and the images of imagination and memory. What we are concerned with in both cases are intra-conscious representations of space and time in judgement processes as well as the benefit they can offer in the domains of science, art, and everyday life. Like Spinoza, Kahneman et al. focus on the negative aspects of imagination and memory and on their remedies. They also expand the discussion with respect to the modes of action in which representativeness and availability cause faults in selection, judgement, and decision-making. Moreover, their work also attempts to answer the double question of when and why human cognition (That of the participants in the cases of Kahneman et al.’s experiments) react in one way rather than another.

The scholarly consensus appears to suggest that dramatic or traumatic events of various levels of significance are more deeply embedded in our memories than regular day-to-day events. Kahneman addresses such phenomena by doubling the conscious aspect to representativeness in imagination alongside representativeness. In this sense, the impression of a dramatic or traumatic event increases individuals’ tendency to estimate it as occurring with greater frequency.

1.1. Noise

Kahneman et al. define “noise” as differences between people’s perceptions of identical events. The internal reasons for this derive from each individual’s psychophysiological states which Kahneman et al. refer to as “Occasion noise, Inner Causes” (2021: 91-93). The differences in individuals’ perceptions of reality, in turn, are referred to by Kahneman et al. as “pattern noise”, and these are manifested in decisions made by similar officeholders in various systems (Kahneman et al. (2021): 79-106).

In the Appendix to Part 1 of the *Ethics*, Spinoza describes the reasons for occasional noise leading to systemic noise: “...‘So many heads, so many opinions,’ ‘everyone is wise in his own sight,’ ‘brains differ as much as palates,’ all of which show clearly that men’s judgement is a function of the disposition of the brain, and they are guided by imagination rather than intellect...” (243). Spinoza then further notes that “...[We] see therefore that all the notions whereby the common people are wont to explain Nature are

merely modes of imagining, and denote not the nature of anything but only the constitution of the imagination” (243).

1.2. Representativeness and its Spinozan Context

Spinoza’s discussion of the imagination’s workings in the *Ethics* arises from Propositions 16 and 17 in Part 2. In the Corollary to Proposition 17, for example, Spinoza analyzes the imagination and explains the reasons for the fit or the gap between it and reality. As Spinoza phrases it in Proposition 17,

If the human body is affected in a way that involves the nature of some external body, the human mind will regard that same external body as actually existing, or as present to itself, until the human body undergoes a further modification which excludes the existence or presence of the said body (256)

We are concerned with a cognitive process which is made up of a number of related actions and thus explainable. Spinoza explains the erroneous association of an object or event to a particular category in the Corollary to Proposition 17 as follows: “...[T]he mind is able to regard as present external bodies by which the human body has been once affected, even if they do not exist and are not present...” (256). In the Scholium to Proposition 17, Spinoza states that “...we see how it comes about that we regard as present things which are not so, as often happens...” In a note on this statement, Yirmiyahu Yovel states that “...this is usually the definition of imagination: and by so stating, Spinoza provides a physiological explanation for imagination (and for the capacity to form images in general) ...” (2003: 151, my translation from Hebrew). According to Spinoza, there is only one objective reality, but it may be [9] examined from both the physiological as well as the psychological aspects in a manner akin to two sides of the same coin. When we are concerned with the body, Spinoza is referring to the senses and [10] to [11] what we now know as the brain’s neurological and electro-chemical activities.

In the Scholium to Part 2, Proposition 17 of the *Ethics*, Spinoza explains the source of error as residing in a lacking awareness of an appearance of imagination, or, in other words, the representativeness of a thing which does not exist in practice. As Spinoza phrases it, “...the imaginations of the mind, looked at in themselves, contain no error [...] For if the mind, in imagining no existing things to be present to it, knew at the same time that those things did not exist in fact, it would surely impute this power of imagining not to the defect but to the strength of its own nature...” (257). The (reasoned) control that would warn of the presence of objects in the imagination that do not exist in reality is what contemporary research refers to as “representativeness”. The mind is only wrong when it is unaware of the non-existence or the non-reality of the things it imagines as present (see *Ethics*, Part 2, Proposition 28, Definition and Scholium, p. 261-262). To illustrate that uncontrolled functioning of imagination as the cause of error, Spinoza describes the imaginary image of a winged horse [12]. The capacity to affirm or deny that is supposed to supervise the appearances of imagination, and which is referred to as a “suitable idea”, is the action which Spinoza seeks for the prevention of error. Elsewhere Spinoza states that “...[T]ruth is an affirmation (or a denial) made about a certain thing, which agrees with that same thing; and Falsity is an affirmation (or a denial) about a thing, which does not agree with the thing itself... [13]” In other words, a necessary condition for truth is that the thing which is consciously present will accord with what exists in reality. It is in this spirit that Kahneman et al. analyze the family of biases arising from the uncontrolled dominance of imagination within the framework of representativeness.

1.3. Representativeness

The operation of the imagination as a cognitive act is associated with the existence of internal space as an *a priori* form of awareness to the appearance of objects in experience [14] For example, the image of a prototype’s characteristics is highly accessible to the imagination and, as such, are natural candidates for the representativeness bias [15]. Representativeness as an imaging process allows us to associate object or event A to category X and object (or event) B to category Y. This attribution, in turn, is determined according to the extent of similarity between the object and the prototype category.

This is also the case with a series of objects (or events) in relation to a different category. What we are concerned with, therefore, is an erroneous cognitive process based on the extent of similarity between the object or the event to the category prototype where the imagination establishes the association between the two as a conclusion.

This heuristic reliance arises from the fact that the probabilities are estimated according to the extent to which X represents A. For example, when X is highly representative of A, the probability of the former arising from the latter is considered high, while if X is not similar to A, then the probability of it arising from A is lower (Kahneman (2011): 419-422). One of the biases arising from the principles of representativeness is “Insensitivity to prior probability of outcome” (ibid.: 420). The scholars’ experiment in this respect suggests that the error in this case arises from the fact that the image of accordance between object and category constitutes such a dominant appearance that conscious awareness is diverted away from the existence of a datum which might contradict this association. Such biases are further reinforced cognitively by what Kahneman et al. refer to as “The Illusion of Agreement:”

“...the belief that others see the world much as we do is reinforced every day in multiple ways...” (Kahneman et al. (2021): 31)

This biased sensation, in turn, constitutes an important factor in the tendency to avoid doubting the veracity of our interpretation and reinforces our belief in representativeness’ erroneous description of the world.

Within the framework of representativeness, Kahneman lists several factors which skew an individual toward error. What we are concerned with in this respect is a family of biases joined by their dependence on the dominance of an imagination which ignores the reality of other relevant factors. The source of this bias, which Kahneman refers to as “Insensitivity to sample size” (2011: 421), a member of the representativeness ‘family’ of biases, lies in an erroneous inference arising from a dependence on an unambiguous result obtained from a small and unrepresentative sample, a phenomenon which Kahneman refers to as “the law of small numbers .” [16]. In this case, we are concerned with an image that is so impressive that an actor tends to ignore the “law of large numbers” principle, which states that the probability of an objective representation increases with sample size, to the extent that the result obtained from a large sample might be the exact opposite of the result obtained from the result of the limited local sample which gave rise to the unambiguous impression of a correlation between the variables under examination [17]. The bias Kahneman refers to as “Misconceptions of chance” (2011: 422), is essentially similar to the previous bias in that it too arises from an image lacking any factual datum. In this respect, Kahneman cites the “well-known gambler’s fallacy,” whereby most people who watched a coin toss estimated—probabilistically—that the appearances of heads will increase the greater the number of prior appearances of tails. Kahneman explains this bias by way of the probabilistic image, which ignores the fact that coins do not possess memories and every toss is a separate event which does not permit serial dependency (ibid.) Gamblers imagine that every toss is part of a process that corrects errors of imagination, and which brings a contingency model that would later balance itself to the forefront of their conscious minds. This perception of a mutual dependence between coincidental events or the suggestion of a causal association between separate events, in turn, is referred to as the rationalization of an association between entirely unrelated cases.

Spinoza, in turn, perceives reliance on coincidence as a cause of error. Contingency is disconnected from the law of causality (see *Ethics*, Part 1, Proposition 33, Scholium 1 (236)), and thus Spinoza suggests that things should not be examined as contingent, but rather as necessary (see *Ethics*, Part 2, Proposition 44 (269-270)). In addition, Spinoza also states that our dependence on imagination also causes us to view things as coincidental (see *Ethics*, Part 1, Proposition 44, Corollary 1 (269)). In other words, our awareness of the causal possibility in and of itself is not rational but rather firmly attached to the imagination (see *Ethics*, Part 4, Proposition 13 (328)). According to Spinoza, the rectification of this state of affairs pertains to certain knowledge, which is more reliable than knowledge based on

contingent representation (see *Ethics*, Part 4, Propositions 16-17 (329-330), as well as *Ethics*, Part 5, Propositions 5-6 (367)).

The representativeness bias known as the “Illusion of validity” (Kahneman (2011): 209) arises from the tendency to base predictions on a consciously held datum and its relation to the result without ascertaining the datum’s veracity. Kahneman demonstrates this bias in light of the results of a psychological experiment. Psychologists who interview candidates for various professions predict the latter’s success in the profession based on their behavior during the interview despite their awareness of the factual loose correlation between a preliminary impression and actual success. More specifically, there are a large number of variables which might affect future success which are not taken into account in first interviews, where the interviewees seek to impress the interviewer and do not usually behave naturally. This bias, in turn, arises from the dominance of a representativeness which reflects an accordance between the impression exerted by the examined object and the choice of outcome (the profession) as well as a minor (if any) consideration of factors which might limit the prediction’s accuracy, and which might even indicate its exact opposite [18].

The bias known as “Regression to the Mean” (Kahneman (2011: 175) describes a coincidental value-laden impression. What we are concerned with here is an erroneous prediction resulting from a preliminary impression joined by a (statistical) factual factor which the actor ignores. For example, a high proficiency ranking in a first test would guide the adjudication of future grades. The problematic nature of this bias arises from the fact that the first grade usually reflects a greater deal of effort than the effort invested in subsequent tests. Like the “Illusory Correlation” bias, which is the effect of a dominant first impression which skews the final result without taking the Regression to the Mean principle into account, the first high grade’s representativeness represents an image whose strong impression causes the actor to ignore the Regression to the Mean principle and gives rise to an expectation of a second measurement being similar to the first. In this respect, the term “Occasion Noise” (Kahneman et al. (2021): 79)—by virtue of being a comprehensive personality aspect associated with cognitive biases—imbues this bias with causal validity.

Spinoza refers to this bias and to the other biases discussed before it as “Opinion or imagination”, and notes that they are caused by “...knowledge from casual experience...” (*Ethics*, Part 2, Proposition 40, Scholia 2)—an observation we shall return to below. Insofar as the two methods under discussion are concerned, it is possible to state that the group of factors associated with the representativeness heuristic as a component in “occasion noise” pertain to a subjective estimate of probability and to a subjective estimate of distance or size. The motivating principle of erroneous judgement thus always arises from a grounding in partial data or data of limited validity which are processed according to the heuristics.

1.4. Spinoza

In Part 2, Proposition 35 of the *Ethics*, Spinoza offers a suitable explanation for representativeness-group biases. According to Spinoza “...Falsity consists in the privation of knowledge which inadequate ideas, that is, fragmentary and confused ideas, involve...” (264). The human mind as a “factory”, which coins ideas, whether true or bearing the appearance of truth [19], might shape a faulty idea which does not accord with reality. The requisite idea must accord with reality and must—as an intra-conscious product of the mind—be complete, clear, and cohesive [20]. Familiarity with the factor causing sensations and images, and an awareness of the latter’s existence, thus constitutes a necessary condition for the prevention of error. As an example, Spinoza provides the feeling that the sun is close to us although we know that its true distance from us is inestimably greater than the impression provided by this feeling. This error, in turn, arises from the dominance of light and heat and their images over our body to the extent that they push the knowledge of the sun’s true distance from Earth away from the conscious mind (*Ethics*, Part 2, Proposition 35, Scholium).

Spinoza presents the remedy for this bias in *Ethics*, Part 2, Proposition 39, Corollary: “Hence it follows that the mind is more capable of perceiving more things adequately in proportion as its body has more things in common with other bodies” (266).

In this respect, we should also note Spinoza’s statement in the subsequent proposition: “...Whatever ideas follow in the mind from ideas that are adequate in it are also adequate...” (*Ethics*, Part 2, Proposition 40) (p. 266). In the Scholium to this Proposition, Spinoza makes a distinction between common or universal concepts which aid adequate thought and those which cause error. According to Spinoza, the human mind cannot simultaneously imagine many distinct people or horses, which is why the mind is prevented from imagining the small differences between individuals (height, weight, features, clothing, and predetermined number) and is forced to imagine what is common to them all in the physical impression made on our senses. These concepts change between individuals. One individual might consider humans as beings walking erectly on two legs, while another might consider humans as rational beings—every individual according to his or her tendencies, imaginations, and worldview concerning the things common to all humans. The “Occasion Noise” bias is what Spinoza refers to as “...knowledge from casual experience...” (*Ethics*, Part 2, Proposition 40, Scholium 2) (pp. 267-268), this being the result of supposition or imagination (ibid.). Spinoza then proceeds to state that “...Knowledge of the first kind is the only cause of falsity...” (*Ethics*, Part 2, Proposition 41) (268). To avoid error, it is necessary to perceive the unique substance of the relevant individual, its substance being its nature. Such perception, in turn, will distinguish it from such generalized terms as human, citizen, beautiful, etc., and this allows individuals to disconnect themselves from the representativeness of the imagination and to attribute true substance to each individual [21].

Spinoza was referring to the erroneous judgement arising from the coincidence and one-time nature of the impression an object exerts on the conscious mind. This impression, in turn, also addresses representativeness sub-biases such as the “prototype” analyzed above, as well as the ignoring of causal principles in “misconceptions of chance” (Kahneman (2011): 422). In this case, the mind imagines the result of a contingent experience from an unrepresentative sample, as well as the results of the appearance of the first grade in a series of grades in Kahneman’s “law of small numbers” bias (Kahneman (2011): 108-109) and the ignoring of the appearance of a first impression in the “regression to the mean” bias (Kahneman (2011): 175). The conclusions which arise from the studies by Kahneman, and others thus accord with Spinoza’s statements on the cases of bias or error.

The methodological overlap between these two concepts (representativeness and imagination) is based on the fact that we are concerned with a dominant conscious process (rather than a still image) which takes place in individuals’ intra-conscious space. The context dependence of Spinoza’s comparison between imagination and erroneous appearance in *Ethics*, Part 2, Proposition 17, which is also what Tversky and Kahneman discuss with respect to representativeness and its sub-biases, allows us, in turn, to determine an identity between “representativeness” and “imagination” as follows:

- (1) Imagination = Appearance in conscious space
- (2) Appearance in conscious space = An act of imagination
- (3) An act of imagination = Representativeness

It therefore follows that Imagination = Representativeness

It is readily apparent that the justification for this equivalence arises from the context of each of the aforementioned concepts in relation to the component’s “appearance” and “space”. The validity of this inference is thus obtained from the identity between the contents of *Ethics*, Part 2, Proposition 17, the *Emendation*, and *Letters* 12 [22], and Tversky and Kahneman’s conclusions on the subjective estimates of the representativeness heuristic and its sub-biases are presented above. In other words, representativeness as the spatial aspect of the heuristic acts as a tool for associating an event or object with a particular category based on the imagination. Put differently, the imagination as the spatial aspect of judgement (erroneous judgement in this case) acts as a tool for associating an event or an object with a particular category based on representativeness. Upon the appearance of the object or the event’s occurrence, the imagination presents the prototype or the category estimate in the foreground of

conscious space and causes the mind to ignore objective data. Spinoza refers to this as “universal concepts” (*Ethics*, Part 2, Proposition 40, Scholiums 1 and 2; Part 2, Proposition 48, Scholium), which cause an individual to ignore other items of knowledge or other relevant data according with reality. In this spirit, Kahneman too states that what appears as a copy of that which is present in actual space (reality) is skewed by the images of representativeness to the presence of the bias's initial immediate impression or the occasion noise in conscious space such as to ignore other data relevant to a process of appropriate judgement [23].

1.5. B. Availability (Kahneman (2011): 129-145)

Availability, as a fundamental concept in the contemporary study of judgement biases, expresses the action of memory. What we are concerned with is a process which retrieves an object or event whose impression is present at a certain point in the past of an individual's conscious timeline. Kahneman et al. (2021)'s study reveals that when people determine the reasonableness of objects' existence or the frequency of events' occurrence, they are affected by the availability of these events in memory. This bias arises from the recognition of an event, and it is context-dependent with respect to the intensity of the impression it imprints in memory or with respect to its temporal proximity in relation to a given situation. In other words, and given a new external stimulus, the event is perceived as a recall of a familiar past situation. It is therefore the case that judgement is exposed to the availability bias on account of its dependence on retrieval. Proper judgement, on the other hand, relies on actual reality in real-time rather than on the dominance of a past impression.

1.6. Spinoza and the Concept of Availability

According to Spinoza, memory maintains a close association with imagination. In this respect, Spinoza perceives duration as the actual means of existence and an aid to imagination with respect to time [24]. Spinoza thus explains time as an indeterminate duration existing by virtue of imagination: “...Further, from the fact that we are able to delimit Duration and Quantity as we please, conceiving Quantity in abstraction from Substance and separating the efflux of Duration from things eternal, there arise Time and Measure: Time to delimit Duration and Measure to delimit Quantity in such wise as enables us to imagine them easily, as far as possible...”. In and of itself, time is therefore not a concrete thing, but rather a kind of mental tool that an individual uses as an “...aid[s] to the imagination...” [25].

While objective reality is an infinite continuum perceivable ad infinitum via the chain of causation, time as an aid to imagination is a factor which truncates the causal continuum [26]. In this respect, Yosef Ben-Shlomo notes that “...recall is a re-awakening [availability through retrieval] of a forgotten memory[;] that is to say, the continuity of its presence [...] is halted[,] and the mind is aware of the passage of ‘time’ since the presence of the thing we are recalling...” [27] Memory also plays a useful role. For example, and as Spinoza phrases it, “...we cannot utter a word unless we call the word to mind...” (*Ethics*, Part 3, Proposition 2, Scholium [p. 281]).

In his Proof to Proposition 18 in Part 2 of the *Ethics*, Spinoza explains how memory can cause a conscious bias. In the Scholium to that Proposition, Spinoza defines memory as a “...linking of ideas involving the nature of things outside the human body, a linking which occurs in the mind parallel to the order and linking of the affections of the human body...” (p. 258). That is to say, “the nature of things” as their impression was imprinted in the mind as an idea in chronological order. Spinoza states that memory's contribution to error arises from its linking of the ideas according to their order (their appearance) in the memory repository and not according to their true chain of causation. This linking, in turn, skews the mind and causes error. For example, and *ceteris paribus*, an event from the recent past as well as a traumatic event from the distant past are more available than a day-to-day event that occurred yesterday. On the other hand, and from a more positive aspect, memory's contribution to truth is manifested in “...the linking of ideas in accordance with the order of the intellect whereby the mind perceives things through their first causes...” (ibid.). In other words, the control of or awareness of the causal context determines availability in its real context compared to other data. Spinoza expresses this

process in the operation of memory as follows: “...Furthermore, from this we clearly understand why the mind, from thinking of one thing, should straightway pass on to thinking of another thing which has no likeness to the first. For example, from thinking of the word “pomum” [apple] a Roman will straightway fall to thinking of the fruit, which has no likeness to that articulated sound nor anything in common with it other than that the man’s body has often been affected by them both; that is the man has often heard the word “pomum” while seeing the fruit. So, everyone will pass on from one thought to another according as habit in each case has arranged the images in his body. A soldier, for example, seeing the tracks of a horse in the sand will straightway pass on from thinking of the horse to thinking of the rider, and then thinking of war, and so on. But a peasant, from thinking of a horse, will pass on to thinking of a plough, and of a field, and so on. So every person will pass on from thinking of one thing to thinking of another according as he is in the habit of joining together and linking the images of things in various ways...” (ibid.). Spinoza explains this further elsewhere in the text: “...if the human body has once been affected by two external bodies at the same time, when the mind later imagines one of them, it will straightway call the other to mind as well; that is, it will regard both as present to it unless other causes arise which exclude their present existence...” (*Ethics*, Part 2, Proposition 44, Scholium [p. 269]). In this respect, it is readily understood that this description is identical to “availability”. In another part of the text, Spinoza explains the dominance of memory as causing a skewing of the mind as follows: “...Therefore insofar as his remembrance of the thing is strong, to that extent the man is determined to regard it with pain...” (*Ethics*, Part 3, Proposition 47, Scholium, as well as Part 3, Definitions of the Emotions, 32 [p. 316]). Spinoza’s specific description of the link between the dominance of memory in time as a cause of the skewing of the mind, in turn, reads as follows: “...We are affected toward a future thing which we imagine to be imminent more intensely than if we were to imagine its time of existence to be farther away from the present. We are also affected by remembrance of a thing we imagine to belong to the past more intensely than if we were to imagine it to belong to the distant past...” (*Ethics*, Part 4, Proposition 10 [p. 327]).

Even as he analyzed representativeness, Kahneman also analyzed judgement biases under conditions of uncertainty. According to Kahneman, “...[T]here are situations in which people assess the frequency of a class or the probability of an event by the ease with which instances or occurrences can be brought to mind...” (2011: 425). In this case, we are concerned with the dominance of memory, or what is referred to as “active memory” [28]. Kahneman provides an example for this as follows: “...one may assess the risk of heart attack among middle-aged people by recalling such occurrences among one’s acquaintances...”. (ibid.) He then proceeds to state that “...[A]vailability is a useful clue for assessing frequency or probability, because instances of large classes are usually recalled better and faster than instances of less frequent classes...” (ibid., my emphasis). When we make decisions, we make use of the information stored in our memory. Learning from past experience relies on memory repositories and thus there are some cases where we use this information efficiently even as there are some cases where this information causes bias. In order to determine the possibility of a particular phenomenon or event, people are naturally inclined toward scanning the materials stored in their memories. The more the information stored in memory appears to be linked to the event or object in question, the greater the tendency to deduce its occurrence with a greater degree of probability. The uncontrolled access that active memory provides will thus cause a judgement bias which Kahneman refers to as “thinking fast”. However, if the dominance of memory is controlled, it becomes possible to attribute the former to the objective data suitably and to derive maximal utility from it. This is a state Kahneman refers to as “thinking slow”.

1.7. The Sub-Biases of Availability

1.7.1. Biases Due to the Effectiveness of a Search Set (Kahneman (2011): 425))

Things are usually not placed into memory as they are, but are rather organized into schemas according to their relevant context. For example, the names of friends and relatives are organized under the context of social proximity, the names of presidents and famous statespersons under the context of

politics, army friends, childhood friends, etc. It is against this background that Tversky and Kahneman state that different tasks give rise to different search patterns. In fact, this allows us to learn about the human tendency to seek the quickest and most convenient way of finding any correlation, however weak, between the material available in memory and a given situation. The efficiency of the search pattern is thus the short path dictated by the retrieval of available data from memory and it is not necessarily associated with the perception of reality as it is. Moreover, this bias is intensified under conditions of uncertainty.

In the sub-bias “Biases of imaginability” (Kahneman (2011): 426)), Kahneman presents the reciprocal relation between memory and imagination. When memory does not contain any relevant information concerning a given event, individuals tend to create possible suitable examples in their imaginations. In other words, when the actor does not possess the option of making use of active memory, imagination fills in the gap. The easier it is for the imagination to create examples in conscious space, the more the phenomenon will be depicted in memory as more frequent and more familiar in time. In this respect, the bias joins the representativeness and availability processes in that it raises imagined depictions of familiarity and uniqueness that are not necessarily associated with the event or phenomenon in question. The easier it is to imagine the occurrence of an event, say, a danger, the more likely we are to overestimate the probability of its occurrence. Conversely, the more difficult it is to imagine an event, such as a possible danger, the more unlikely it is that we will call it to mind and the more likely it is that we will tend to ignore its associated risk(s).

1.8. Illusory Correlation (Kahneman (2011): 426-427)

What we are concerned with in this case is erroneous judgement pertaining to the frequency of the co-occurrence or sequential occurrence of two events. This erroneous link, in turn, arises from the strength of the associative connection between the events. Furthermore, and the stronger the emotional aspect involved, the greater the chance of concluding that such events will appear together more frequently. Such an ostensible link between two events is caused when the action of availability in memory reinforces our belief in the existence of these events. Accordingly, the stronger our belief that two events occur in close proximity, the greater our tendency to conclude that they will, even if it is possible that the events in question are associated with other events and not with the events we believe to be linked on account of their availability.

As is the case with representativeness, the belief in a skewed picture of reality is intensified in availability and its sub-biases on account of the illusion discussed above and referred to as “The illusion of agreement” (Kahneman et al. (2021): 29).

1.9. Spinoza and Memory Sub-Biases

A close examination of “biases due to the retrievability of instances” (Kahneman (2011): 425) as biases which produce “biases due to the effectiveness of a search set” (ibid.) and “biases of imaginability” (ibid.: 426) reveals the theoretical proximity between them and Spinoza’s statements concerning the *modi operandi* of memory. In *Ethics*, Part 2, Definition 6, Spinoza describes the operation of the mind with respect to the past. In this sense, he states that—just like the uncontrolled spatial image of the sun’s proximity by virtue of its influence on the senses (light and heat)—events in time also exert influences on consciousness according to their proximity to or distance from the present [29]. According to Spinoza, such influences are false and are the result of ideas that formulate in the confusion and messiness of erroneous or partial concepts and which are based on faulty associative links [30]. These biases are thus nothing but an uncontrolled attempt to draw conclusions from habit and from a tendency toward shortcuts. In this respect, Spinoza attributes these biases to two habits: (1) the habit that arises from sensual perceptions and which is represented in a truncated and confused manner and is referred to as “familiarity from contingent experience”, and (2) the recall of things imprinted in our memories as ideas as a result of hearing or reading (*Ethics*, Part 2, Proposition 40, Scholium 1) [31].

In the Corollary and Scholium to Part 2, Proposition 44 of the *Ethics*, Spinoza explains the cause for the availability of an idea in memory as follows: "...if the human body has once been affected by two external bodies at the same time, when the mind later imagines one of them, it will straightway call the other to mind as well; that is, it will regard both as present to it..." (p. 269). The creation of an erroneous context between objects and events arises from the fact that an object/event that imprinted its impression on individuals and which has been engraved into their memories in some context will immediately be recalled when the mind imagines one of them. Once A appears, the mind will immediately recall B, and this is how Spinoza explains the process which gives rise to what modern scholarship refers to as "availability". In his example of the horse's tracks in the eyes of a warrior, in turn, Spinoza shows how thinking of one thing is associatively linked to another thing even if they bear no link to each other. As Spinoza relates it,

"...So everyone will pass on from one thought to another according as habit in each case has arranged the images in his body. A soldier, for example, seeing the tracks of a horse in the sand will straightway pass on from thinking of the horse to thinking of the rider, and then thinking of war, and so on. But a peasant, from thinking of a horse, will pass on to thinking of a plough, and of a field, and so on. So, every person will pass on from thinking of one thing to thinking of another according as he is in the habit of joining together and linking the images of things in various ways..." (*Ethics*, Part 2, Proposition 18, Scholium (p. 258)) [32].

Spinoza expresses the dominance of availability and its association with images of time in *Ethics*, Part 3, Proposition 18 as follows: "...From the image of things past or future man is affected by the same emotion of pleasure or pain as from the image of a thing present..." (p. 288).

Ethics, Part 3, Proposition 36, states that "...He who recalls a thing which once afforded him pleasure desires to possess the same thing in the same circumstances as when he first took pleasure therein..." (p. 297, my emphasis), and is one among several places in the text where Spinoza critiques individuals who are biased by their memories. This desire is a stimulus made of the available and is an impression of what Spinoza refers to as a conjecture or an image or a coincidental stumbling upon the familiar retrieved from memory. It is here that Spinoza explains that pleasure, for example, is a contingent motive for action, and it is solely the association of pleasure engraved in our memories that attracts us to that which is bad and harmful since pleasure is disconnected from (critical) reason. A true perception of reality is thus not random and does not rely on the retrieval of a memorized contingency by virtue of, say, a pleasurable image [33]. In the introduction to Part 4 of the *Ethics*, Spinoza provides a general description of the reasons for the influence prejudices exert on human determinations. Specifically, people tend to create models or prototypes based on the ideas they possess regarding the things in question and will prefer the models stored in their memories over others in a judgement situation. This age-old description by Spinoza of the association between time and error, in turn, is very useful in explaining Kahneman's "Biases due to the effectiveness of a search set", as well as his "illusory correlation" bias. After all, the fictional and false ideas noted by Spinoza arise from conjectures and contingent sensations that made an impression on the imagination, were stored as possessing such an impression in memory repositories, and became available for retrieval in the foreground of memory.

According to Spinoza, people observe reality and draw conclusions about it according to the conceptual model they possess about their observations (*Ethics*, Part 4, Preface). In the Scholium to *Ethics*, Part 4, Proposition 62, in turn, Spinoza states that the lack of suitable knowledge of a thing's duration constitutes a cause of error. He further states that uncontrolled retrieval from memory, like uncontrolled imagination, does not distinguish between a desire for pleasant things in the present and future inconvenience or harm (*Ethics*, Part 2, Proposition 44, Scholium) [34].

The empirical confirmation of Spinoza's statements on the manner in which human memories operate, in turn, can be found in the results of Kahneman's work on the convenience of the available and the tendency toward the familiar as expressed in the availability bias and its sub-biases.

In Part 4, Proposition 9 of the *Ethics*, Spinoza states that "...An emotion whose cause we think to be with us in the present is stronger than it would be if we did not think the said cause to be with us..." (p.

326, my emphasis). In this spirit, Spinoza's proof of Proposition 17 in Part 2 of the *Ethics* ties the process of imagination to the temporal dimension as an idea the mind uses to observe a thing as if it were present in the here and now. The impression left by this act of availability is so powerful that it imprints itself upon as actually present as long as we do not imagine anything else to replace the imagining of the available. In this respect, Spinoza states (*Ethics*, Part 4, Proposition 10) that the short-term (active) memory is present "...more intensely than if we were to imagine its time of existence to be farther away from the present..." (p. 327). This statement by Spinoza, in turn, is confirmed empirically by the "misconceptions of chance", by the tendency toward "ease", and by the "effectiveness of a search set" in Kahneman's concept of availability (Kahneman (2011): 422-425).

The baseline of internal time as a common background for availability and memory in the shaping of cognitive processes thus constitutes an active operation and is not a static image. The identity can therefore be formulated as follows:

- 1) Memory = conscious image on a timeline (i.e. with a temporal dimension).
- 2) Conscious image = process of recall of events or objects (duration).
- 3) Process of recall (Duration) = availability.

And thus: 4) Memory = Availability

This inference is all the more reinforced by Spinoza's statements on the relations between memory and time in *Letters* 12 as well as in *Ethics*, Part 2, Propositions 18 and 44; *Ethics*, Part 3, Proposition 36, and *Ethics*, Part 4, Propositions 9 and 10 and by the comparison of the former to Kahneman's analysis of the "biases due to the retrievability of instances", "biases due to the effectiveness of a search set", and the bias of "illusory correlation" discussed above. It is thus possible to note that the justification for the identity of memory = availability is grounded in the link between each of the concepts and "time" as a conscious duration line, and to the latter reflecting a "process" rather than a still image.

Further support for this identification can be obtained from *Ethics*, Part 4, Propositions 9-13, and from the Scholium to Part 4, Proposition 60. In this case too Spinoza provides a detailed description of the association between time and the extent of the influence the contingent, the possible, and the necessary exert on consciousness. Specifically, and in the Corollary to *Ethics*, Part 4, Proposition 12, Spinoza states that: "...Emotion toward a thing which we know not to exist in the present and which we think of as contingent is much feebler than if we were to think of the thing as with us in the present..." (p. 328) [35]. A thing which we imagine as present in the here and now thus engraves a greater impression on us than if we were to imagine it as a future possibility.

The equivalent offered in Tversky and Kahneman's work to Spinoza's discussion of the contingent, the possible, and the necessary is best manifested in the coin toss experiment presented above as the gambler's fallacy. This experiment, in turn, indicates the transition from a contingent impression to the possible. The gambler who observes the continuous and persistent appearance of heads in the coin toss believes there to be a probabilistic and/or statistical connection between coin tosses, i.e. that it is contingent. At this point, and according to the gambler's belief, the appearance of tails transitions from a contingent image to a possible image. The source of error, as explained by Tversky and Kahneman, arises from the erroneous image evoked by the "misconception of chance". This image, in turn, is so impressive that it overshadows the fact that every toss is an event in and of itself and is unrelated to the preceding or subsequent toss. Spinoza expresses this bias in *Ethics*, Part 4, Proposition 11 as follows: "...An emotion toward a thing which we think of as inevitable [necessaries] is more intense, other things being equal, than emotion toward a thing possible, or contingent, that is, not inevitable..." (p. 327). In other words, and when we imagine a transition from contingency to possibility, our belief in our prediction increases due to the lack of an idea which accords with reality rather than a confused ideal or a lack of knowledge [36]. In *Ethics*, Part 4, Proposition 13 and the Proof to Proposition 13, Spinoza states that a thing which has occurred in the past leaves a stronger impression than a contingent thing since the imagining of a thing which has already occurred evokes this thing in memory and we imagine it as being present. Accordingly, and in the absence of an impression of a similar past event, we will not call to mind an imagined link to the causes which might give rise to it. These statements, in turn, accord

with Tversky and Kahneman's conclusions with respect to biases due to the retrievability of instances, biases due to the effectiveness of a search set, and biases of imaginability (Kahneman (2011): 422–426), as well as with Kahneman et al. (2021)'s discussion of "occasion noise" (71–90), as well as confirm Spinoza's conclusions with regard to ranking the extent of the impression exerted on human consciousness by the contingent, the possible, and the necessary [37].

1.10. Afterword

The intertextual encounter offered here allowed us to identify how representativeness and availability as generators of errors are encompassed by Spinoza's concepts of imagination and memory. Put differently, Kahneman and others divide the former into sub-biases and add another tenet referred to as a "contingent cloud" as a bridging concept for the discussion of individual gaps within groups. In this respect, judgement based on past experience is only a natural and desirable trait when the data retrieved from imagination and/or memory are relevant to the situation in question. Spinoza would have certainly supported Kahneman's findings with regard to the fact that the capacity for prediction is undesirable when it arises from an imagined correlation between the frequency of an event and the case in question. An event's occurrence must thus not be determined by virtue of an impression imprinted on our memories since active memory increases the availability of this impression and skews our picture of reality away from its relevant context and instead links it with parameters associated with uncontrolled imagination and memory.

As we have seen above, the tendency toward preferring the familiar induces us to make errors in judgement. Accordingly, I thus believe that the intertextual encounter presented here confirms Spinoza's statements and establishes his philosophy as an invaluable asset with respect to anything pertaining to objective judgement and to self-control in decision-making. The confirmation of Spinoza's *Ethics* thus perfects the cognitive tools he established for the prevention of distorted perceptions in conditions involving pressure and uncertainty.

Copyright:

© 2024 by the author. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

References

- [1] Kahneman, D. (2011). *Thinking, Fast and Slow*. London: Penguin Books
- [2] Kahneman, D., Sibony, O., and Sunstein, C.R (2021). *Noise: A Flaw in Human Judgement*. London: William Collins
- [3] We are concerned with relative space and time. Spinoza stressed the difference between the perception of things in time as a duration or as a non-specific persistence and their perception as an "effective eternity". We are therefore not concerned with objective time but with present experience
- [4] Spinoza, B. (2002 [ca. 1657]). "Treatise on the Emendation of the Intellect and on the Way by which it is Best Directed to the True Knowledge of Things" (tr. Samuel Shirley) in *Spinoza: Complete Works*. Indianapolis, IN: Hackett Publishing (ss. 82–85, pp. 23–24)
- [5] See also Spinoza, B. (2002 [ca. 1657]). "Letter 12: To the learned and wise Lodewijk Meyer, Doctor of Medicine and Philosophy, from B.d.S." (tr. Samuel Shirley) in *Spinoza: Complete Works*. Indianapolis, IN: Hackett Publishing (pp. 787–791)
- [6] Spinoza, *Emendation*, ss. 82–83.
- [7] To clarify Spinoza's association between imagination and memory on the one hand and space and time on the other hand, I will presently—in this case only and very carefully—make use of Kant's introspective description of space and time. The latter description presents space and time as *a priori* foundations upon which an *a posteriori* image of people's experimental world appears via the senses. Kant's definitions accord with Spinoza's words with respect to the primary meaning of these concepts, and I believe this clarification will be useful in our understanding of the latter as a methodological background against which we can discuss imagination and memory's conceptions, judgements, and intra-conscious judgements. In his theoretical analysis of space and time, Kant perceived these categories as a form of pre-experimental "lenses" through which people observe their world, and which Kant refers to as *a priori* "forms of viewing". According to Kant, we can consider the "lenses" as preceding everything, space as a thing devoid of objects,

- and time as a thing devoid of events (See Kant, I. (2004 [1783]). *Prolegomena to Any Future Metaphysics* (tr. Gary Hatfield). Cambridge: Cambridge University Press (ss. 9-13, pp. 34-45) and Kant, I. (1998 [1781]). *Critique of Pure Reason* (tr. Paul Guyer and Allen W. Wood). Cambridge: Cambridge University Press (pp.172-192)). I further believe that Spinoza would have wholeheartedly supported Kant's statement in this respect.
- [8] Kahneman defines availability as non-Realtime judgements which depend on the retrieval of records from memory. For the formation of this concept in the literature, see Kahneman (2011), Chapter 12, pp. 129-136.
- [9] Benedict de Spinoza (2003 [1677]). *Ethics* (tr. and annot. (into Hebrew) Yirmiyahu Yovel). Tel Aviv: Ha'Kibbutz Ha'Meuchad.
- [10] Gilead Bar-Eli clarifies the double meaning of ideas in Spinozan thought. The idea of a body as its mental aspect is an idea which "manifests" the body and anything taking place in it as its object. However, the idea of an external object is also an idea formed by the person viewing the object, but one which "includes" the nature of the object it represents. In other words, the latter is a representational objective idea of a given object. See "Truth, Error, and Fiction in Spinoza" (2007), *Iyyun* [Study] 56: 155-182 [In Hebrew] (p. 159). In addition, Bar-Eli perfects the distinction between these ideas as suggested by Wolfson: the internal idea grounded in consistency and certainty which are identified with clarity and distinctiveness, and the idea of according with the things in the world (ibid.: 155). According to Bar-Eli, the error lies that a simulated idea has no concrete existence, i.e. that it is not an idea but a quasi-idea, a kind of game with images, pictures, words, and fiction (ibid.: 180-181). Bar-Eli is therefore concerned with central part played by imagination in the shaping of errors.
- [11] Clarification: This topic, as is the case with other topics in Spinozan thought, is associated with the metaphysical aspect of Spinoza's method. It is beyond the scope of the present article to expand on this.
- [12] See *Ethics*, Part 2, Proposition 49, Scholium (pp. 273-277)
- [13] Spinoza, B. (2002 [ca. 1662]). "Short Treatise on God, Man, and his Well-Being" (tr. Samuel Shirley) in *Spinoza: Complete Works*. Indianapolis, IN: Hackett Publishing (Part II, Ch. XV (p. 79)).
- [14] See notes 5, 6, 7 above
- [15] See Kahneman, D. and Frederick, S. (2002). "Representativeness revisited: Attribute substitution in intuitive judgment," in Gilovich, T., Griffin, D., and Kahneman, D. (eds.), *Heuristics and Biases*. New York: Cambridge University Press, pp 49-81.
- [16] A 1972 experiment by Kahneman revealed that this bias arises from the presence of a factual datum (the results of a sample) of some kind in the imagination. Despite it being a factual datum, the conscious mind ignores its practical, and occasionally negligible, nature (see Kahneman (2011): 109-113).
- [17] This impression is powerful enough to cause the participants to ignore the sample's smallness and to tend to rely exclusively on the result they already possess
- [18] See Tversky, A. and Kahneman, D. (1971). "Belief in the law of small numbers". *Psychological Bulletin* 76(2), 105-110; Tversky, A. and Kahneman, D. (1973). "Availability: A heuristic for judging frequency and probability". *Cognitive Psychology* 5(2), 207-232; Tversky, A. and Kahneman, D. (1974). "Judgment under uncertainty: Heuristics and biases". *Science* 185(4157), 1124-1131.
- [19] In *Ethics*, Part 3, Definition 3, an idea is a concept which is either charged with reality or an erroneous (false) image
- [20] In the Scholium which follows this Proposition, Spinoza refers the reader to Part 2, Proposition 17 that was discussed above. Bar-Eli perceives the adequate idea as one containing the elements of "...coherence, logical and deductive richness, and conscious identity..." (Bar-Eli 2007: 156, my translation).
- [21] *Treatise on the Emendation of the Intellect*, s. 55 and note 182 in Yosef Ben-Shlomo's edited and annotated edition of Nathan Spiegel's translation of this text into Hebrew (Spinoza, B. (1973 [ca. 1657]). *Treatise on the Emendation of the Intellect and on the Way by which it is Best Directed to the True Knowledge of Things* (tr. [into Hebrew] Nathan Spiegel, edited and annotated by Yosef Ben Shlomo). Jerusalem: Magnes Press).
- [22] See notes 5, 6, and 7 above.
- [23] Jitendranath (2024) presents the paradox of Buridan's ass (or donkey) used by Spinoza as an absurd metaphor for equilibrium in decision-making (see *Ethics*, Part 2, Proposition 49, Scholium (p. 274)). A binary state in the rational consideration of a decision might thus lead to vacillation, indecision, rejection, and to a violation of the desired optimal rationale. In such a state, bias expresses a disregard for the existence of a wider aspect than a mere binary. For example, a binary focus on y and z in a choice between three products (x, y, and z) focuses all attention on them and might disregard a wider view of the reality present between z and x. See Akshath Jitendranath (2024). "The Isaac Levi Prize 2023: Optimization and Beyond". *Journal of Philosophy* 121(3): 121-146. doi: 10.5840/jphil2024121312.
- [24] Following Yirmiyahu Yovel on p. 25 of his introduction to his translation of the *Ethics* into Hebrew. See Benedict de Spinoza (2003 [1677]). *Ethics* (tr. and annot. (into Hebrew) Yirmiyahu Yovel). Tel Aviv: Ha'Kibbutz Ha'Meuchad. Also see *Emendation* ss. 82-83 and notes in Ben-Shlomo (cited in note 21 above)..
- [25] *Letters* 12 (specifically p. 789).
- [26] Compare Amihud Gilead (1986). *Spinozan Thought: From Theory to Philosophical Method*. Jerusalem: Bialik Institute, pp. 188-205 [In Hebrew]. Gilead describes the relativity of time as an abstract human creation. According to Gilead, time does not pass to the same extent for all of us; it all depends on the particular individual and on the state of her or his body and mind in a given set of circumstances. Thus, the same measurable time that appears to 'crawl' in times of boredom, stress, or pain, appears to 'fly' rapidly in times of interest and pleasure (193). In this respect, it should be

- noted that the present article is not concerned with the metaphysical aspects of time but in its role as a backdrop for bias and error effected by memory and imagination. For a review of the metaphysical aspects of time, see Lee C. Rice, "Mind Eternity in Spinoza", *Iyyun: The Jerusalem Philosophical Quarterly* 41 (1992): 319-334. For Antony Dugdale's original approach to this issue, see Antony Dugdale, "Pieces of Time and Regions of Eternity", *Iyyun: The Jerusalem Philosophical Quarterly* 50 (2001): 285-294.
- [27] See note 333 on s. 83 of the *Emendation* in Ben-Shlomo's edited and annotated edition of Nathan Spiegel's translation of the text into Hebrew (citation in note 21 above), as well as pp. 207-232 of the same book.
- [28] See Robert Jervis (1976), *Perception and Misperception in International Politics*. Princeton, NJ: Princeton University Press. Some writers have also referred to this as a "dominant", "inflexible", or "uncontrolled" schema. Also see Shlomo Kaniel (2003), *The Psychology of Control over Consciousness*. Ramat Gan: Bar-Ilan University Press, pp. 121-128 (in Hebrew)
- [29] Also see *Ethics*, Part 4, Propositions 9-13; Part 4, Proposition 9, Scholium, and Part 4, Proposition 9, Corollary.
- [30] Also see *Emendation*, s. 64 and note 226 in Yosef Ben-Shlomo's edited and annotated edition of Nathan Spiegel's translation of this text into Hebrew (citation in note 21 above).
- [31] For more on the link between memory and habit, see *Ethics*, Part 2, Proposition 40, Scholiums 1 and 2; *Ethics*, Part 2, Proposition 18, Scholium; *Ethics*, Part 2, Definitions 2 and 7.
- [32] Also see *Ethics*, Part 2, Proposition 44 (p. 269-270); *Ethics*, Part 3, Proposition 14, Definition (p. 286); *Ethics*, Part 3, Proposition 16, Definition (p. 287). An example in this spirit is also presented by Kaniel (2003: 113) regarding the concept of a tree (citation in note 27 above) [In Hebrew].
- [33] See, for example, *Emendation*, s. 108 and *Letters* 37
- [34] For a detailed discussion of good and evil or pleasure and pain, see Frank Lucash (2008). "False Pleasures in Spinoza". *Iyyun: The Jerusalem Philosophical Quarterly* 57: 265-282.
- [35] Yirmiyahu Yovel explains the contingent as follows: "...We are concerned with a thing that does not exist in the here and now and with respect to which we have no knowledge of the chain of causation which might give rise to its creation. This is therefore the remotest of logical possibilities..." (See Yovel's translation of the *Ethics* into Hebrew, p. 294, note 1 (citation in note 23 above). The translation here is mine). For statements in this spirit pertaining to the dominance of memory as skewing the mind in relation to the chain of causation, as with the necessity of the phenomenon, to an imagination of the thing in question as contingent, see Corollary and Proof to *Ethics*, Part 4, Proposition 12.
- [36] ¹ In this context, Sant'Anna (2023) states that, memory is experienced as responding to the world, and consequently, as not being under our control. A. Sant'Anna. Is remembering constructive imagining? *Synthese*, vol. 202, article number 141.
- [37] For more on the dominance of uncontrolled memory, see *Emendation*, ss. 82, 83. For the route of a correct decision arising from the proper knowledge of things with respect to the temporal dimension, see *Ethics*, Part 4, Proposition 62, Definition and Scholium.