

BŁAŻEJ GĘBURA

ON THE EPISTEMOLOGY OF CHANCE*

INTRODUCTORY REMARKS

Anselmian probabilistic theism as viewed by Dariusz Łukasiewicz is a view which philosophically ennobles the concept of chance and is contained in the surprising thesis that the occurrence of authentic chance events in the world does not exclude the work of divine providence (2020, 28). Thus, this thesis does not only spark a critical discussion but also inspires the pursuing of secondary threads that are only signaled out within the characteristics of this standpoint. I believe that one of these threads concerns the nature of our knowledge regarding chance. However, it cannot be undertaken in abstraction from the definition of chance.

In “Divine Providence and Chance in the World,” Łukasiewicz introduces six concepts of chance: ontological chance (C1), non-intentional chance (C2), epistemic chance (C3), teleological chance (C4), probabilistic chance (C5), and causal chance (C6) (2020, 6). This list should be supplemented with one more concept of chance, namely composite chance (C7). I think that the concept of composite chance, which occurs in “Semantyka przypadku” (Semantics of chance), one of Łukasiewicz’s earlier texts, is of a special character and deserves a separate analysis. Composite chance concerns each event that does not have any cause (explanation), does not occur by virtue of any law, and is purposeless in each

BŁAŻEJ GĘBURA, PhD, Department of the Theory of Knowledge, Faculty of Philosophy of the John Paul II Catholic University of Lublin; address for correspondence: Al. Raclawickie 14, 20–950 Lublin, Poland; e-mail: blazejgebura@gmail.com; <https://orcid.org/0000-0002-9176-2072>.

* The present article was written as part of an internal grant of the Faculty of Philosophy of the Catholic University of Lublin under the title “Analityczna filozofia religii” (0307). Project translation and proofreading is funded by the Minister of Science and Higher Education under the program called “Regional Initiative of Excellence” 2019–2022; project no. 028/RID/2018/19, the amount of funding: 11,742,500 PLN. I would like to thank Michał Buda and Piotr Biłgorajski for their remarks on the original version of this text.

meaning of the words “cause,” “law,” and “purpose.” Moreover, it is “irreducibly unpredictable” (2014a, 393).

I believe that there is a need to conduct epistemological research regarding chance.¹ If we refer to chance in a variety of ways, we must have some cognitive access to it, at least *prima facie*.

If this first possibility takes place, then we possess a more or less extensive knowledge of chance which we can call tychical knowledge (taken from the Greek *tyche*, which is translated as “chance” or “blind chance”). If the other possibility occurs, the adequate standpoint concerning the issue of knowledge of chance is skepticism (tychical skepticism). The task of the epistemology of chance is to show the falsity or impossibility of tychical skepticism.

At the same time, it should be said that the concept of chance is present in a number of fields of human activity, not only in philosophy but also in everyday life and science. Referring to this issue, Łukasiewicz emphasizes that “obviously, the frequency of the occurrence of the word ‘chance’ in everyday life, its presence in the languages of different epochs, is not in itself any philosophical argument arguing for indeed the existence of chance, or its ‘authenticity’” (Łukasiewicz 2014a, 364–65).

If the purpose of epistemology is to describe and establish the norms of any possible cognition, then epistemology should have a say in the issue of the cognition of chance, without assuming as the starting point the truth of the premises derived from science.² Paraphrasing the above quotation, the fact itself that scientific theories refer to the concept of chance is not a conclusive argument that supports the thesis that chance events do exist and that we possess knowledge of them.

If it is otherwise, we should assume that metaphysics and epistemology can be replaced by science in this respect. This view, however attractive it may seem to some philosophers, has the fault of requiring a radical change of thinking about the area of the competences of the most important philosophical disciplines. Obviously, this is not a decisive objection, but seems at least to suggest that very strong reasoning must lie behind the justification of such a change.

It seems, however, that the postulate of cultivating epistemology encounters a certain obstacle, which is that from the point of view of epistemology itself

¹ While talking about the epistemology of chance, I do not mean Bayesian epistemology, which does not deal with an analysis of the classically understood concept of knowledge, but rather starts with the concept of the probability of beliefs (Hájek and Hartmann 2019, 95).

² While characterizing the problems of the theory of knowledge (epistemology), Antoni B. Stępień notices that the theory of knowledge is a general theory of human knowledge and as such is supposed to be “fully (cognitively) autonomous and independent of other sciences, both philosophical and non-philosophical ones” (Stępień 2001, 64).

chance is usually treated as an undesirable factor. At present, the most striking example of such an approach is a discussion concerning the nature of knowledge in the context of the Gettier problem. As noticed by Duncan Pritchard, a post-Gettier analysis of the concept of knowledge should search for the condition whose fulfillment will guarantee that knowledge is not achieved by chance, although according to Pritchard, this is not the only condition which should be added to the classical definition of knowledge (Pritchard 2018, 96–97). Without undermining this diagnosis, it should be emphasized that it does not follow that chance cannot be the object of research of epistemology. It is one thing to attempt to identify the chance factors that lower the value of our knowledge or disturb the latter, and another to question whether we possess knowledge of chance events.

I believe that the cognitive importance of Anselmian probabilistic theism depends on whether “authentic” incidents of chance do exist and whether we have cognitive access to them. Should it turn out that the concept of chance is an empty notion, it should be acknowledged that probabilistic theism tries in vain to reconcile incidents of chance with divine providence insofar as authentic chance events do not exist and we do not possess knowledge of this subject. Łukasiewicz (2014, 295), however, does not only claim that chance events do exist, but also that we derive knowledge of them “mainly from natural sciences” (p. 359). The issue of the existence of chance events should be settled by the metaphysics of chance. However, as I suggested, the problem of tychical knowledge requires that the perspective of natural sciences be temporarily suspended and that this problem should be solved within epistemology itself.

In the first part of the present text I analyze some selected ways of justifying knowledge of chance, in the second I refer to the issue of skepticism concerning chance, while in the third I discuss certain doubts associated with the concept of composite chance (C7).

KNOWLEDGE OF CHANCE

There is no doubt that the most important task of epistemology is to determine whether we possess knowledge of chance. To this end, we can refer at least to four types of justification: common sense justification, pragmatic justification, empirical justification, and a priori justification. Naturally, these are not all the types of justification known to epistemology and, more so, some of them (especially common sense and pragmatic justification) are sometimes treated by philosophers as especially controversial. All the aforementioned types of justification are, however, representative in the sense that each of them expresses a different standard of

rationality. I believe that this can be used in discussion with tychical skepticism, and I will develop this aspect in the latter part of the text. However, tychical knowledge does not have to concern all the concepts of chance that we are able to characterize. I will indicate that such a circumstance takes place in relation to understanding composite chance, the chance which lies beyond the scope of tychical knowledge. Nevertheless, the aim of an advocate of tychical knowledge is to show that we possess knowledge concerning chance as viewed in any way.

1. COMMON SENSE AND PRAGMATISM

When we want to justify the view that we possess knowledge concerning chance, we can refer to common sense justification. This justification assumes that many of the beliefs that we hold are rightly called knowledge. This position also acknowledges that philosophical theories cannot ignore or negate this fact (Lemos 2009, 53). Considering common sense justification in discussion with tychical knowledge seems natural since, in philosophy, common sense beliefs are usually referred to when one wishes to avoid skepticism of some issue.

George E. Moore and his followers point to the fact that some common sense beliefs, from the point of view of the cognitive subject, are more credible than the premises of philosophical arguments which are supposed to abolish these beliefs or cast doubt on them. The common sense justification can serve to justify knowledge of non-intentional chance (C2). According to Łukasiewicz (2020), each event which “is not intended or willed by any personal agent (a divine agent included)” is such a chance event (p. 6). An advocate of tychical knowledge can refer to the fact that the premises of the philosophical argument—intended to show that chance events understood in this way do not exist—cannot be aligned with the whole of the knowledge of the world that this subject possesses. If this is so, the subject is not forced to reject belief in non-intentional chance and can claim that they possess tychical knowledge.

Another way to justify knowledge of chance is the pragmatic justification. It seems that a trace of this very justification can be found in Łukasiewicz’s writing itself when he states that “the world woven with chance events is the world of risk,” with chance events being not only an impulse for the acquisition and development of new skills but also for character building (2014, 309). The remark stating that the world in which chance events occur is a world of enormous diversity is also convergent with pragmatism.

The essence of this observation is that the world in which one can bear a real risk, meaning that one can either win or fail, is the world we would want since

this possibility of risk is beneficial to the subject. The answer of pragmatism to the question of having tychical knowledge would then be the following: we possess knowledge of chance because it is essential for our functioning in the world. Such knowledge enables us to experience the world more fully through the possibility of undertaking a real risk that occurs in it. It seems that it is knowledge of epistemic chance (C3): “an event unpredictable for any mind operating and existing in time” (Łukasiewicz 2020, 6). Chance understood in this way must take place if the activities which we undertake in life are to be authentically risky. The pragmatic justification then leads to knowledge of epistemic chance and provides still another reason to reject skepticism when discussing chance.

Thanks to the common sense justification we possess knowledge concerning non-intentional chance (C2), whereas pragmatic justification leads to knowledge concerning epistemic chance (C3). Both the common sense justification and the pragmatic justification are, however, extremely controversial. Moore was accused of prejudicing the issue and of being naive about important philosophical problems, while William James himself was accused of not recognizing the nature of truth and of promoting wishful thinking in philosophy. While seeing these difficulties, let us move on to two other types of justification known to epistemology and characteristic of empiricism and rationalism.

2. EMPIRICISM AND APRIORISM

It would seem that empirical justification is too weak to justify knowledge of chance. A skeptic would indicate that through using perception only it is not possible to settle if whether some event was a chance event since the chance nature of events is not a feature whose occurrence can be stated thanks to perception itself. A skeptic would argue that we rather view a given event as chancy if we interpret it by means of the concept of chance. However, this objection is too general as it does not refer to a specific concept of chance and ignores the fact that the chance of events can be viewed differently.

Contrary to skeptics, it can be pointed out that empirical justification leads to knowledge of probabilistic chance (C5). Łukasiewicz (2020, 6) understands probabilistic chance in the following manner: “an event whose probability is very small.” If some event is possible, then from the point of view of empiricism it can take place even if it is only slightly probable. The fact that when a billiard ball hits another, the first ball usually sets the second ball in motion does not mean that it is impossible that in the same situation the second ball could not have moved from its place at all. This would be a chance event of a very low probability but, in ac-

cordance with empiricism, this low probability event is not excluded beforehand. Using empirical justification we can, therefore, assume that we possess tychical knowledge, or more exactly, knowledge of probabilistic chance.

The last type of justification considered in this text is a priori justification. An advocate of tychical skepticism can also try to undermine a priori justification by emphasizing, and referring to Łukasiewicz, that the “existence of pure chance cannot be reconciled with the principle of sufficient reason” (Łukasiewicz 2014a, 387). To some extent this objection is correct since it shows that a rationalist cannot possess tychical knowledge of ontological chance (C1), which is understood as “an event lacking any detectable cause or causal explanation” (Łukasiewicz 2020, 6). A lack of cognitive access to pure chance does not prevent a rationalist from the having knowledge of chance understood in other ways, as it seems that a priori justification makes it possible to confirm knowledge of causal chance (C6), with causal chance being treated as “a coincidence of two or more causal chains” (p. 6).

By acknowledging the existence of causal order, a rationalist simultaneously accepts the thesis of the existence of more than one causal chain and of different causal chains cross-cutting each other. Therefore, thanks to a priori justification, we possess knowledge of causal chance events which are nothing more than coincidences.

In light of these findings we can state that both empirical justification and a priori justification enrich our knowledge of chance and make it possible to acknowledge that we possess tychical knowledge of probabilistic chance (C5) and causal chance (C6).

CHANCE AND SKEPTICISM

It is sometimes said that the major aim of epistemology is to prove the falsity or impossibility of skepticism. If knowledge is impossible, then the cultivation of epistemology, whose main task is supposed to be analysis of the concept of knowledge, is purposeless. A skeptic could then try to prove that each of the concepts of chance (from C1 to C6) is an empty notion. The success of this undertaking would entitle the acceptance of skepticism in the issue of chance due to the fact that one cannot have knowledge of something which does not exist. The existence of an object is a necessary condition of knowledge concerning it, although this is obviously an insufficient condition. This course of proceedings is rather demanding for a skeptic since it requires proving that all known concepts of chance are empty. This means that a skeptic might wish to look for a less demanding way of proving that we do not possess tychical knowledge of chance.

The most obvious observation in this context would be that each of the aforementioned ways of justifying knowledge of chance has to face grave objections, though common sense justification and pragmatic justification should be considered as the most controversial. Considering their commonly indicated limitations, the question can be asked if whether they really justify knowledge of chance?

After all, someone may argue that if knowledge of non-intentional chance (C2) and epistemic chance (C3) can be justified thanks to common sense and pragmatic justifications, we have then proven that cognitive access to chance events understood in this way is nothing but seeming, which means that we do not possess knowledge of those two varieties of chance. There are known interpretations where common sense justification is not a philosophical method at all, but rather it expresses confusion regarding certain theoretical and practical aspects of chance, with pragmatism sometimes being regarded as a certain version of skepticism as due to a specific understanding of truth.

Despite the controversial character of both of these methods on the grounds of epistemology, it should be emphasized that there are also different interpretations thereof which further weaken the formulated objections. To give an example, William Lycan emphasizes that the method applied by Moore, with all its limitations (including its modified version), copes with most objections and can prove its superiority in theoretical struggle with such disputable views as, for example, eliminative materialism (Lycan 2019, 39). Concerning an estimation of James's pragmatic method, some authors argue that James, despite all weaknesses and ambiguities connected with his standpoint, was an epistemological realist (Putnam 1997, 174). Piotr Gutowski (2011, 157), on the other hand, argues that the view according to which "the pragmatic method aims to eliminate metaphysical issues" is a misunderstanding.

An advocate of knowledge of chance can then undertake discussion with a skeptic in which the former will defend particular types of justification of tychical knowledge. It seems, however, that this is not the only possible way to counter skepticism in the matter of chance. I believe that the circumstance which speaks for knowledge of chance is that chance can be justified from the perspective of different views within epistemology. Obviously, this type of fact does not guarantee that the belief spoken of here is true, but it seems that such a situation at least allows one to be rational and justified in the acceptance of this belief.

If within different, and frequently competing, standards of rationality (e.g., the rationality characteristic of empiricism and rationalism), which assume particular justifications of knowledge of chance, we can speak of knowledge of chance in definite meanings, then tychical knowledge is in a certain sense multiply confirmed.

The adequacy of this approach can be explained better if we think of an opposite situation. Cultivating a belief which was proven unjustifiable from the perspective of different methods accessible to epistemology, a belief which does not fulfill various standards of rationality, seems irrational.

Obviously, this approach has its limitations. It seems that the aforementioned approach is not able to justify the belief of the ability to possess knowledge of chance in a strong sense. On the other hand, the approach is not arbitrary since it points to the fact that only placing a belief in light of different standards of rationality constitutes the basis of whether cultivating a belief is rational or not. The advantage of this way is metaphilosophically and neutrality understood in that it does not enforce one standard of rationality.

Naturally, from the above it does not follow that an optimal standard of rationality does not exist. However, the proposed perspective of estimating beliefs does not only require having the answer to this question, but this perspective also makes it possible to maintain cognitive caution and blocks the possibility of a hasty rejection of beliefs which cannot fulfill a single standard of rationality. Therefore, the aforementioned perspective is not able to annul skepticism completely but does weaken it. The reason for this is that a skeptic would have to question all considered standards of rationality and this cannot be done without becoming involved in a detailed discussion of each of them.

An analogy to this method is a philosophical discussion where the opponents first try to establish which premises they commonly accept. If they succeed in indicating them, these opponents do not undertake an effort to justify these premises further but rather move on to disputable issues. The fact that the same premises were accepted by both sides is treated (and should be treated) as a moderate confirmation if not of the truth of the premises, then at least of their rationality. Knowledge of chance can be treated as a premise from the above example, while the role of the opponents in this discussion is played by different standards of rationality.

Someone could of course formulate the objection that this is an attempt to cultivate epistemology by means of metaphilosophy. Metaphilosophy does not generate first-order conclusions since the latter are the domain of particular philosophical disciplines. If so, no binding epistemological conclusions can be drawn from metaphilosophical analyses. This objection can, however, be weakened by pointing out that the proposed course of proceedings consists only of metaphilosophy accepting the data obtained in epistemology, and the comparison thereof.

The four justifications presented in this text, namely the common sense, pragmatic, empirical, and a priori ones make it possible to acknowledge that we possess tychical knowledge. Using them, we can prove that we possess knowledge

of non-intentional (C2), epistemic (C3), probabilistic (C5), and causal chance (C6). In light of this finding, we can assume that our cognitive access to chance (in the four provided meanings) actually occurs and we are not forced to accept tychical skepticism.

COMPOSITE CHANCE

Let us come back to the concept of composite chance (C7), which clearly distinguishes itself among the other concepts of chance enumerated by Łukasiewicz. Let us recall that a chance event in this meaning is an event that “does not have any cause (explanation), does not occur by virtue of any law, and is purposeless in each meaning of the words ‘cause’, ‘law’, and ‘purpose’. Moreover, it is ‘irreducibly unpredictable’” (Łukasiewicz 2014a, 393).

The “compositeness” of chance so understood is that the features of other known concepts of chance are contained within composite chance. In order to recognize an event as a chance one in the composite sense it is necessary to notice in a given event the features characteristic of all known concepts of chance, with this making knowledge of composite chance much more demanding than knowledge of any other singular case of chance (from C1 to C6). Due to the fact that it is hard to think of a more radical characterization of chance events (without prejudging that this is impossible), it seems that compositeness is a borderline concept of chance. Recognizing the special character of this concept, Łukasiewicz himself (2014a, 393) states directly that composite chance “would be the antithesis of God” although at the same time he assures that even “chance so viewed could be a part of God’s plan”.

I believe that within the epistemology of chance it is justifiable to say that our cognitive access to composite chance is apparent. In what way could we get to know chance events which have no cause, which do not occur by virtue of any law and which are irreducibly unpredictable? What would the knowledge of these events even concern? It seems that if not for the premises of scientific origin, we would not attach any weight at all to the analysis of the concept of composite chance. Doubts concerning the possibility of getting to know chance understood in this way are, therefore, serious but do not show that the four discussed justifications of tychical knowledge are faulty or insufficient.

The fact then that we do not get to know composite chance does not constitute a reason for tychical skepticism. This result may be interpreted in the following way: our knowledge of chance has limits. We possess knowledge of chance in reference to the majority of, but not all, concepts of chance known to us, with composite

chance being a special exception. It does not follow from this that the concept of composite chance does not play any role in our knowledge. As an idealization, the concept of composite chance marks the limit to thinking about chance events.

CONCLUSIONS

Within the epistemology of chance we can study particular ways of justifying tychical knowledge. The present article outlines four possible ways of justifying knowledge of chance: common sense justification (C2—non-intentional chance), pragmatic justification (C3—epistemic chance), empirical justification (C5—probabilistic chance), and a priori justification (C6—causal chance). Common sense justification makes it possible to justify knowledge of non-intentional chance (C2), provide pragmatic justification of knowledge of epistemic chance (C3), provide empirical justification of knowledge of probabilistic chance (C5), and provide a priori justification of knowledge of casual chance (C6).

Therefore, we possess knowledge concerning at least four concepts of chance. An open question remains in justifying knowledge of ontological chance (C1) and teleological chance (C4). Each of the justifications discussed in this text assumes other standards of the rationality of beliefs. It seems that the last circumstance can be used in discussion with skepticism concerning chance. If a belief can be justified simultaneously within the frameworks of different standards of rationality, then this fact testifies to the advantage of the belief in question. Thus, we can rationally cultivate the belief that we possess knowledge of chance. And if we add to the thesis that probabilistic theism shows how to reconcile chance events with divine providence, then the cognitive importance of the standpoint defended by Dariusz Łukasiewicz increases significantly.

Nevertheless, the concept of composite chance distinguished by Łukasiewicz raises certain doubts. It is difficult to find sufficient epistemological reasons for the thesis that we possess knowledge of chance understood in this way. This form of chance is rather an idealization, and is useful in making us aware of the limits of research concerning the epistemology of chance. In my opinion, the fact that we do not get to know composite chance does not, however, constitute a reason for tychical skepticism, with this being because we possess knowledge of chance events that are “weaker” than composite chance.

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ON THE EPISTEMOLOGY OF CHANCE

S u m m a r y

Probabilistic theism according to Dariusz Łukasiewicz is a theism which ennobles the concept of chance and explains the role which chance plays in the context of Divine Providence. An epistemologist can, however, be interested in a much more basic issue and ask whether our beliefs concerning chance can be called knowledge. This article is divided into three parts. In the first one I discuss selected ways of justifying knowledge of chance, namely common sense justification, pragmatic justification, empirical justification, and a priori justification, as well as concluding that we possess tychical knowledge in reference to non-intentional chance (C2), epistemic chance (C3), probabilistic chance (C5), and causal chance (C6). In the second part I undertake the problem of skepticism in the problem of chance and I suggest that a significant role in the discussion with tychical skepticism is played by the standards of rationality. In the third section I refer to the concept of composite chance discussed by Łukasiewicz, and I claim that (i) we do not possess knowledge of composite chance as understood by Łukasiewicz, and that (ii) this fact should not be treated as a reason in favor of tychical skepticism.

Keywords: chance; epistemology; skepticism; justification; knowledge; metaphilosophy.

O EPISTEMOLOGII PRZYPADKU

Streszczenie

Teizm probabilistyczny Dariusza Łukasiewicza to teizm, który nobilituje pojęcie przypadku i wyjaśnia rolę, jaką ono odgrywa w kontekście opatrności Bożej. Epistemolog może jednak zainteresować się kwestią o wiele bardziej podstawową i zapytać, czy nasze przekonania dotyczące przypadku można określić mianem wiedzy? Artykuł podzielony jest na trzy części. W pierwszej omawiam wybrane sposoby uzasadniania wiedzy o przypadku: uzasadnienie zdroworozsądkowe, pragmatyczne, empiryczne i aprioryczne, i konkluduję, że posiadamy wiedzę tychiczną w odniesieniu do przypadku nieintencjonalnego (C2), epistemicznego (C3), probabilistycznego (C5) i kauzalnego (C6). W części drugiej podejmuję problem sceptycyzmu w kwestii przypadku i sugeruję, że znaczącą rolę w dyskusji ze sceptycyzmem tychicznym odgrywają standardy racjonalności. W części trzeciej odnoszę się do dyskutowanego przez Łukasiewicza pojęcia przypadku kompozytywnego i twierdę, że: (i) nie dysponujemy wiedzą na temat tak rozumianego przypadku; oraz, że (ii) nie należy tego faktu traktować jako racji na rzecz sceptycyzmu tychicznego.

Słowa kluczowe: przypadek; epistemologia; sceptycyzm; uzasadnienie; wiedza; metafizyka.