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**Chance in the Metaphysics, Physics and Ethics of Aristotle**

Abstract

Aristotle examines chance in the *Physics*, because he considers it to be a cause. However, he explains chance in metaphysical terms, since he defines it as an accident. Chance is an accidental cause of an event. Since chance is an accident, it does not exist in itself and therefore does not have a purpose, although it appears to have a purpose. Aristotle holds that chance is a term that refers to a particular kind of event, namely an event that occurs unusually and that appears significant in the context of the human search to achieve a goal. There is a fundamental cause of a chance event, but the chance aspect of the event is caused by the occurrence of an unexpected accident. Based on this understanding of chance Aristotle strongly opposed Democritus, who attributed the order in the universe to chance.

For Aristotle there are three fundamental causes of everything that comes to be, namely nature, art and chance. There can be no question of chance in that which occurs in accordance with nature, because something that occurs by chance does not occur regularly, whereas everything in nature occurs either always or in most cases in the same way. Everything in nature has a goal, namely that of achieving its best possible condition and of staying in that condition for as long as possible. Thus teleology is a reality. However, nature does not always achieve its goal. There are chance substances, by which Aristotle means an exceptional occurrence contrary to nature, for example a child can be born with six fingers. Aristotle sees the chance occurrence as an accident of a substance that is striving for its goal. In contemporary terms, mutations, which are the primary cause of evolution, occur by chance, but they are accidental to the living being which is striving for survival and its best condition.

According to Aristotle the purpose of life and of ethics is to achieve happiness. Now in order to be happy, Aristotle holds that human beings need a degree of external prosperity. Hence happiness depends to a certain extent on chance, since prosperity depends on chance. It may be noted that chance in Aristotle's ethical works is different from chance in Aristotle's physical works. In the ethical works chance is responsible for all external goods and not just for exceptional cases. Thus chance in regard to external goods in the ethical works means the random or that for which there is no explanation or just the way things are. Aristotle also speaks of another kind of chance in the *Eudemian Ethics*. This is divine good fortune, which is the side effect of the virtuous action of someone with a good nature who acts impulsively and irrationally under the influence of an intuition of the good or due to attraction by God.

Aristotle held that human beings are free and are responsible for their actions. He was not a determinist, but in addition he provided an explanation for the inadequacy of determinism. He argued profoundly not only that human free choices are not the only exception in an otherwise determined world, but that all events on earth are in the final analysis contingent, since they all go back to a contingent starting-point. This contingent starting-point can be a free choice or an accident or chance, which can be based on both. Science is only possible to the extent that accidental causes can be excluded from predictions. The scope of science is, therefore, very limited. Science is dependent on the reduction of events to fundamental or *per se* causes. However, *per se* causes are not sufficient to account for events. Events, therefore, are contingent.

