

## Contents.

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## 1 Introduction

In this module, the central question is how the concept of \*lawfulness\* can be approached from a formal logical perspective in relation to humans and nature. We explore what it means to speak of a 'law', and how this concept moves between natural lawfulnesses and human normativity. By carefully analyzing these concepts, we create space to investigate what forms of connection between humans and nature are conceivable, and which boundaries become visible in this context.

## 2 Starting Point

Formal logic.

## 3 Summary

Divided into:

- 1 General.
- 2 Conclusion.

### 3.1 General

1. For humans: they are subject to natural lawfulnesses.
2. For the Big Bang as a lawfulness: it requires a natural law as its opposite.
3. For natural laws it holds: there is only one of them (the abstract has only one opposite, and the concrete has both one and multiple opposites).
4. For SOMETHING (cause of natural law): it is spirit outside the universe.
5. For natural lawfulnesses: it cannot be linked to humans as a law.

Explanation:

– This constitutes the second proof, following the neomodern scientific proof based on informal logic [AI-validated module \*Law vs. Lawfulness\* (natuurfilosoof.nl)].

### 3.2 Conclusion

In this module, we have thoroughly examined the concepts of lawfulness and formal logic, highlighting the underlying structures and principles that enable scientific explanations and predictions. We have seen that lawfulnesses not only form the basis for empirical generalizations but also play a crucial role in the development of theoretical models within science.

By applying a formal-logical analysis, we gained insight into how lawfulnesses can be formulated, evaluated, and applied. We emphasized the necessity of precision and consistency in the formulation of lawfulnesses, as well as the role of deductive and inductive

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reasoning in the scientific process. This analysis has allowed us to grasp the complexity of lawfulnesses and appreciate their significance across various scientific disciplines.

Furthermore, we discussed the limitations and challenges associated with the use of lawfulnesses, such as the influence of context, the role of anomalies, and the dynamics of scientific progress. It has become clear that lawfulnesses are not static but rather evolve as our understanding of the world develops.

In summary, this module not only provides a formal logical basis for understanding lawfulnesses but also offers a critical reflection on their role in science. This insight is essential for both scientists and philosophers, and it opens the door to further exploration of the foundations of knowledge and the methods of scientific inquiry. By applying this knowledge, we can not only better understand existing lawfulnesses but also develop new insights and theories that further enrich our understanding of the world.

### 4 Substantiation

...a = Is true.

...i = Is also true.

1a For the Big Bang: it is a concrete natural change.

2a For concrete natural changes: it is not a law.

Explanation:

o 2.1a For a law, the following applies: it is the cause of something; it \*is\* issued (by consciousness); it is purely abstract in nature; it requires an effect.

o 2.2i For lawfulness, the following applies: it is the result of something; it is \*not\* issued; it is both abstract and concrete in nature; it requires a cause.

o 2.3i For a law, the following applies: it is the opposite of lawfulness.

3a For a law: it is the opposite of lawfulness.

Explanation:

o 3.1a This is because statement 2.3i is true.

4i For the Big Bang: it is a one-time natural lawfulness.

Explanation:

o 4.1a For multiple natural lawfulnesses: it is not one-time.

o 4.2i For one natural lawfulness (Big Bang): it is one-time.

4a For the Big Bang: it is a one-time natural lawfulness.

Explanation:

o 4.1a For statement 4a: it is a copy of 4i.

5a For the Big Bang: it is the central beginning of nature.

6a For all that exists: it has originated from the Big Bang.

7a For all that exists: characteristics arise from the Big Bang.

8i For all that exists: it is subject to natural lawfulnesses.

8a For all that exists: it is subject to natural lawfulnesses.

Explanation:

o 8.1a For statement 8a: it is a copy of 8i.

9a For humans: they are part of existence.

10i For humans: they are subject to natural lawfulnesses.

3a For a law: it is the opposite of lawfulness.

Explanation:

o 3.1a This is because statement 2.3i is true.

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11i For natural lawfulness: it requires a natural law as its opposite.

8a For all that exists: it is subject to natural lawfulnesses.

Explanation:

o 8.1a For statement 8a: it is a copy of 8i.

4a For the Big Bang: it is a one-time natural lawfulness.

Explanation:

o 4.1a For statement 4a: it is a copy of 4i.

7a For all that exists: characteristics arise from the Big Bang.

11a For natural lawfulness: it requires a natural law as its opposite.

Explanation:

o 11.1a For statement 11a: it is a copy of 11i.

12i For the Big Bang as a lawfulness: it requires a natural law as its opposite.

13a For lawfulness: it is a consequence.

14a For a law: it is a cause.

15i For lawfulness: it has a law as its opposite.

15a For lawfulness: it has a law as its opposite.

Explanation:

o 15.1a For statement 15a: it is a copy of 15i.

19i Something cannot be both a law and a lawfulness at the same time.

15a For lawfulness: it has a law as its opposite.

Explanation:

o 15.1a For statement 15a: it is a copy of 15i.

16a For natural lawfulness: it is a subtype of lawfulness.

17a For natural law: it is a subtype of law.

18a For humans as unnatural legislators: they are not capable of influencing natural lawfulnesses.

19a Something cannot be both a law and a lawfulness at the same time.

20i For the opposing relationship of law vs. lawfulness: it is structurally sensitive to subtypes.

Explanation:

o 20.1i For the opposing relationship of law vs. lawfulness: it is symmetric in form (if  $A \leftrightarrow B$ , then also  $B \leftrightarrow A$ ).

o 20.2i For the opposing relationship of law vs. lawfulness: it is complementary in content (they complement each other to form a whole, without being each other's mirror image).

21i For natural lawfulness: it has a natural law as its opposite.

22a For gravity: it is a natural lawfulness.

23a For electromagnetic force: it is a natural lawfulness.

24i For natural lawfulnesses: there are several of them.

24a For natural lawfulnesses: there are several of them.

Explanation:

o 24.1a For statement 24a: it is a copy of 24i.

21a For natural lawfulness: it has a natural law as its opposite.

Explanation:

o 21.1a For statement 21a: it is a copy of 21i.

25i For natural laws: there is one of them.

Explanation:

o 25.1a This is because the first statement is valid.

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- o 25.2a For the pair of propositions 24a and 25i it holds: reflects “the abstract has only one opposite.  
Explanation:
  - 25.2.1a For “regularity” as something abstract it holds: it has only “law” as its opposite.
  - 25.2.2a For “multiple” as something abstract it holds: it has only “one” as its opposite.
  - 25.2.3i For the abstract it holds: it has only one opposite.
- o 25.3i For a natural law it holds: the abstract has only one opposite.
  
- o 25.3a For a natural law it holds: the abstract has only one opposite.
- o 25.4i For a natural law it holds: the concrete has both one and multiple opposites.  
Explanation:
  - 25.4.1a For the pair of propositions 20.1i and 20.2i it holds: reflects “the concrete has both one and multiple opposites.”  
Explanation:\*\*
    - 25.4.1.1a For “symmetric” as something concrete it holds: it has both “complementary” and “asymmetric” as opposites.
    - 25.4.1.2a For “form” as something concrete it holds: it has only “content” as its opposite.
    - 25.4.1.3i For the concrete it holds: it has both one and multiple opposites.
  
- 25a For natural laws: there is one of them.  
Explanation:
  - o 25.1a For statement 25a: it is a copy of 25i.
- 4a For the Big Bang: it is a one-time natural lawfulness.  
Explanation:
  - o 4.1a For statement 4a: it is a copy of 4i.
- 8a For all that exists: it is subject to natural lawfulnesses.  
Explanation:
  - o 8.1a For statement 8a: it is a copy of 8i.
- 19a Something cannot be both a law and a lawfulness at the same time.  
Explanation:
  - o 19.1a For statement 19a: it is a copy of 19i.
- 21a For natural lawfulness: it has a natural law as its opposite.  
Explanation:
  - o 21.1a For statement 21a: it is a copy of 21i.
- 26a From NOTHING cannot SOMETHING (cause of natural law) arise.
- 27i For SOMETHING (cause of natural law): it exists outside the universe.
  
- 27a For SOMETHING (cause of natural law): it exists outside the universe.  
Explanation:
  - o 27.1a For statement 27a: it is a copy of 27i.
- 28a For the cause of law: it is spirit.
- 29i For SOMETHING (cause of natural law): it is spirit outside the universe.
  
- 27a For SOMETHING (cause of natural law): it exists outside the universe.  
Explanation:
  - o 27.1a For statement 27a: it is a copy of 27i.
- 21a For natural lawfulness: it has a natural law as its opposite.  
Explanation:
  - o 21.1a For statement 21a: it is a copy of 21i.
- 24a For natural lawfulnesses: there are several of them.  
Explanation:
  - o 24.1a For statement 24a: it is a copy of 24i.

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25a For natural laws: there is one of them.

Explanation:

o 25.1a For statement 25a: it is a copy of 25i.

30i For natural lawfulnesses: it can be linked to humans.

30a For natural lawfulnesses: it can be linked to humans.

Explanation:

o 30.1a For statement 30a: it is a copy of 30i.

31i For unnatural law (e.g., traffic law): it can be linked to humans.

30a For natural lawfulnesses: it can be linked to humans.

Explanation:

o 30.1a For statement 30a: it is a copy of 30i.

8a For all that exists: it is subject to natural lawfulnesses.

Explanation:

o 8.1a For statement 8a: it is a copy of 8i.

21a For natural lawfulness: it has a natural law as its opposite.

Explanation:

o 21.1a For statement 21a: it is a copy of 21i.

25a For natural laws: there is one of them.

Explanation:

o 25.1a For statement 25a: it is a copy of 25i.

32i For natural lawfulnesses: it cannot be linked to humans as a law.

Explanation:

o 32.1a This forms the second proof, following the neomodern scientific proof based on informal logic [validated by AI module 'Law vs. Lawfulness' (natuurfilosoof.nl)].

## 5 Appendices.

None.