## **Transcendental Arguments. Models and Applications**

The transcendental argument is a modal reasoning that to some extent resembles the *modus ponendo ponens* inference scheme well known from classical propositional calculus. The premises of the transcendental argument might be presented as follows.

(Factual Premise)	<i>p</i> ,
(Transcendental Premise)	<i>p</i> is possible only if <i>q</i> .

The question of what conclusion one can validly draw from the above assumptions became the subject of wide disputes. Two possibilities were considered:

(Weak Conclusion)	q.
(Strong Conclusion)	Necessarily q.

The choice of one of the competing options depends on the formalization of the Transcendental Premise – which I also refer to as *transcendental conditional* – and the deductive theory underlying its interpretation. In the case of reasoning that leads to a Weak Conclusion, a transcendental conditional can be viewed as a material implication, and the basis for its formal representation is the classical propositional calculus. On this assumption, a transcendental argument is a deductive reasoning that simply satisfies the *modus ponens* scheme. This means that it is not modal reasoning. Moreover, it seems impossible to say anything interesting about it from a purely logical point of view. What makes an argument 'transcendental' are the material properties of the major premise of the syllogism. The nature of transcendental argumentation was understood in this way by philosophers such as Peter F. Strawson, Ross Harrison, and Jay Rosenberg. The serious drawback of this interpretation, which is dominant in philosophical literature, is that it actually makes the transcendental conditional redundant. If one wants to prove only a Weak Conclusion, she can accept a weaker premise by omitting the modal operator placed in the antecedent of the material implication.

In my research, I will propose and develop a different interpretation of transcendental arguments as modal reasonings. In the case of reasoning leading to a Strong Conclusion, the transcendental conditional can be interpreted as a strict implication, and the system of modal logic *S5* might serve as a basis for the formalization. Therefore, a transcendental argument goes as follows:

(i) <i>p</i>	(Factual Premise),
(ii) $\Box(\diamondsuit p \Rightarrow q)$	(Transcendental Premise),
(iii) <i>◊p</i>	(ab esse ad posse valet consequentia: (i)),
(iv) $\Box \diamondsuit p$	(5: (iii)),
$(\mathbf{v}) \Box \diamondsuit p \Rightarrow \Box q$	(Distribution Axiom: (ii)),
$(vi) \Box q$	(Strong Conclusion, modus ponens: (iv), (v)).

The aim of the project is (a) to consider historical examples of transcendental arguments – developed from the time of Aristotle to the present day, (b) to conduct a comparative analysis of various models of these reasonings and, above all, (c) to examine the nature of the transcendental conditional, revealing both epistemological and metaphysical commitments in which transcendental arguments are involved. The result of the project will be the classification of the models of transcendental arguments that have been presented in the philosophical literature so far, their critical analysis, and the development of an original interpretation of the reasoning. This will allow for the standardization, complete, or at least partial formalization of the planned research is emphasized by the fact that the aforementioned reasoning is one of the most commonly used philosophical tools. Arguments formulated and widely discussed in the second half of the twentieth century are based on this schema, including Ludwig Wittgenstein's private language argument, Donald Davidson's argument against dualism of scheme and content, or Hilary Putnam's Brains in a Vat Argument. Explaining the nature of transcendental arguments will not only help philosophers understand the method they use in their work. It will also contribute – most importantly – to establishing the validity of the cognitive claims of philosophy itself in this regard.