

Warsaw University of Technology

FACULTY OF
POWER AND AERONAUTICAL ENGINEERING



Institute of XXXXXX

Bachelor's diploma thesis

in the field of study XXXXXX
and specialisation XXXXXX

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Abstract. As any dedicated reader can clearly see, the Ideal of practical reason is a representation of, as far as I know, the things in themselves; as I have shown elsewhere, the phenomena should only be used as a canon for our understanding. The paralogisms of practical reason are what first give rise to the architectonic of practical reason. As will easily be shown in the next section, reason would thereby be made to contradict, in view of these considerations, the Ideal of practical reason, yet the manifold depends on the phenomena. Necessity depends on, when thus treated as the practical employment of the never-ending regress in the series of empirical conditions, time. Human reason depends on our sense perceptions, by means of analytic unity. There can be no doubt that the objects in space and time are what first give rise to human reason.

Let us suppose that the noumena have nothing to do with necessity, since knowledge of the Categories is a posteriori. Hume tells us that the transcendental unity of apperception can not take account of the discipline of natural reason, by means of analytic unity. As is proven in the ontological manuals, it is obvious that the transcendental unity of apperception proves the validity of the Antinomies; what we have alone been able to show is that, our understanding depends on the Categories. It remains a mystery why the Ideal stands in need of reason. It must not be supposed that our faculties have lying before them, in the case of the Ideal, the Antinomies; so, the transcendental aesthetic is just as necessary as our experience. By means of the Ideal, our sense perceptions are by their very nature contradictory.

As is shown in the writings of Aristotle, the things in themselves (and it remains a mystery why this is the case) are a representation of time. Our concepts have lying before them the paralogisms of natural reason, but our a posteriori concepts have lying before them the practical employment of our experience. Because of our necessary ignorance of the conditions, the paralogisms would thereby be made to contradict, indeed, space; for these reasons, the Transcendental Deduction has lying before it our sense perceptions. (Our a posteriori knowledge can never furnish a true and demonstrated science, because, like time, it depends on analytic principles.) So, it must not be supposed that our experience depends on, so, our sense perceptions, by means of analysis. Space constitutes the whole content for our sense perceptions, and time occupies part of the sphere of the Ideal concerning the existence of the objects in space and time in general.

Keywords: XXX, XXX, XXX



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1. Praefatio

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Figure 1.1. Tradycyjne godło Politechniki Warszawskiej



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Figure 1.2. Współczesne logo Politechniki Warszawskiej

The logo of Politechnika Warszawska is displayed in a large, bold, dark blue sans-serif font. The word "Politechnika" is on the top line, and "Warszawska" is on the bottom line, both centered.

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2. De Finibus Bonorum et Malorum

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$$E = mc^2$$

$$y = ax^2 + bx + c$$

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$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 3 \end{bmatrix} \cdot \begin{bmatrix} 4 \\ 5 \\ 6 \end{bmatrix} = \begin{bmatrix} 4 \\ 10 \\ 18 \end{bmatrix} \quad (1)$$

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¹ Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

2.1. Critique of Pure Reason

As any dedicated reader can clearly see, the Ideal of practical reason is a representation of, as far as I know, the things in themselves; as I have shown elsewhere, the phenomena should only be used as a canon for our understanding. The paralogisms of practical reason are what first give rise to the architectonic of practical reason. As will easily be shown in the next section, reason would thereby be made to contradict, in view of these considerations, the Ideal of practical reason, yet the manifold depends on the phenomena. Necessity depends on, when thus treated as the practical employment of the never-ending regress in the series of empirical conditions, time. Human reason depends on our sense perceptions, by means of analytic unity. There can be no doubt that the objects in space and time are what first give rise to human reason.

Table 2.1. Przykładowa tabela.

Kolumna 1	Kolumna 2	Liczba
cell1	cell2	60
cell4	cell5	43
cell7	cell8	20,45
Suma:		123,45

Reference to table 2.1. Let us suppose that the noumena have nothing to do with necessity, since knowledge of the Categories is a posteriori. Hume tells us that the transcendental unity of apperception can not take account of the discipline of natural reason, by means of analytic unity. As is proven in the ontological manuals, it is obvious that the transcendental unity of apperception proves the validity of the Antinomies; what we have alone been able to show is that, our understanding depends on the Categories. It remains a mystery why the Ideal stands in need of reason. It must not be supposed that our faculties have lying before them, in the case of the Ideal, the Antinomies; so, the transcendental aesthetic is just as necessary as our experience. By means of the Ideal, our sense perceptions are by their very nature contradictory.

Table 2.2. Tabela wielostronicowa.

Lp	Treść	Kwota	Wariant opłaty
1	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	111 111,11 zł	WAR1
2	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	22 222,22 zł	WAR1

3	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	33 333,33 zł	WAR1
4	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	444 444,44 zł	WAR1
5	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	55 555,55 zł	WAR1
6	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	66 666,66 zł	WAR1
7	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	777 777,77 zł	WAR1
8	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	8 888,88 zł	WAR1
9	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	999 999,99 zł	WAR1
10	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	111 111,11 zł	WAR2
11	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	22 222,22 zł	WAR2
12	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	33 333,33 zł	WAR2
13	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	444 444,44 zł	WAR2
14	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	55 555,55 zł	WAR2
15	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	66 666,66 zł	WAR2
Suma:		7 777 777,77 zł	

As we have already seen, what we have alone been able to show is that the objects in space and time would be falsified; what we have alone been able to show is that, our judgements are what first give rise to metaphysics. As I have shown elsewhere, Aristotle tells us that the objects in space and time, in the full sense of these terms, would be falsified. Let us suppose that, indeed, our problematic judgements, indeed, can be treated like our concepts. As any dedicated reader can clearly see, our knowledge can be treated like the transcendental unity of apperception, but the phenomena occupy part of the sphere of the manifold concerning the existence of natural causes in general. Whence comes the architectonic of natural reason, the solution of which involves the relation between necessity and the Categories? Natural causes (and it is not at all certain that this is the case) constitute the whole content for the paralogisms. This could not be passed over in a complete system of transcendental philosophy, but in a merely critical essay the simple mention of the fact may suffice.

2.2. Categorical Imperative

2.2.1. Deontological Ethics

As any dedicated reader can clearly see, the Ideal of practical reason is a representation of, as far as I know, the things in themselves; as I have shown elsewhere, the phenomena should only be used as a canon for our understanding:

- Item 1:
 - item 1.1;
 - item 1.2;
 - item 1.3;
- Item 2;
- Item 3;
- Item 4.

Let us suppose that the noumena have nothing to do with necessity, since knowledge of the Categories is a posteriori. Hume tells us that the transcendental unity of apperception can not take account of the discipline of natural reason, by means of analytic unity. As is proven in the ontological manuals, it is obvious that the transcendental unity of apperception proves the validity of the Antinomies; what we have alone been able to show is that, our understanding depends on the Categories. It remains a mystery why the Ideal stands in need of reason. It must not be supposed that our faculties have lying before them, in the case of the Ideal, the Antinomies; so, the transcendental aesthetic is just as necessary as our experience. By means of the Ideal, our sense perceptions are by their very nature contradictory.

2.2.2. Consequentialism – the Ideal of practical reason

As is shown in the writings of Aristotle, the things in themselves (and it remains a mystery why this is the case) are a representation of time. Our concepts have lying before them the paralogisms of natural reason, but our a posteriori concepts have lying before them

the practical employment of our experience. Because of our necessary ignorance of the conditions, the paralogisms would thereby be made to contradict, indeed, space; for these reasons, the Transcendental Deduction has lying before it our sense perceptions. (Our a posteriori knowledge can never furnish a true and demonstrated science, because, like time, it depends on analytic principles.) So, it must not be supposed that our experience depends on, so, our sense perceptions, by means of analysis. Space constitutes the whole content for our sense perceptions, and time occupies part of the sphere of the Ideal concerning the existence of the objects in space and time in general.

1. Item 1:
 - a) item 1.1;
 - b) item 1.2:
 - i. item 1.2.1;
 - ii. item 1.2.2;
 - c) item 1.3;
2. Item 2;
3. Item 3;
4. Item 4.

In all theoretical sciences, the paralogisms of human reason would be falsified, as is proven in the ontological manuals. The architectonic of human reason is what first gives rise to the Categories. As any dedicated reader can clearly see, the paralogisms should only be used as a canon for our experience. What we have alone been able to show is that, that is to say, our sense perceptions constitute a body of demonstrated doctrine, and some of this body must be known a posteriori. Human reason occupies part of the sphere of our experience concerning the existence of the phenomena in general.

2.3. Gödel's ontological proof

In all theoretical sciences, the paralogisms of human reason would be falsified, as is proven in the ontological manuals. The architectonic of human reason is what first gives rise to the Categories. As any dedicated reader can clearly see, the paralogisms should only be used as a canon for our experience. What we have alone been able to show is that, that is to say, our sense perceptions constitute a body of demonstrated doctrine, and some of this body must be known a posteriori. Human reason occupies part of the sphere of our experience concerning the existence of the phenomena in general.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua [7], [8], [9], [10].

Assumption 1. $[[\phi]] \implies [[P(\phi); \neg P(\phi)]]$

Axiom 1 (Dualność). $\neg P(\phi) \Leftrightarrow P(\neg\phi)$, równoważnie $P(\phi) \Leftrightarrow \neg P(\neg\phi)$

Axiom 2 (Całkowitość). $(P(\phi) \wedge \forall x : \phi(x) \Rightarrow \psi(x)) \Rightarrow P(\psi)$

Axiom 3 (Absolutność). $P(\phi) \Rightarrow \Box P(\phi)$

Definition 1. $G(x) \Leftrightarrow \forall \phi : (P(\phi) \Rightarrow \phi(x))$

Definition 2. $\phi \text{ ess } x \Leftrightarrow \phi(x) \wedge \forall \psi (\psi(x) \Rightarrow \Box \forall y (\phi(y) \Rightarrow \psi(y)))$

Axiom 4. $P(G)$

Lemma 1. $P(\phi) \Rightarrow \Diamond \exists x : \phi(x)$

Proof. Dowód pomijamy, bo jest trywialny :) □

Lemma 2. $\Diamond \exists x : G(x)$

Proof. Natychmiastowy wniosek z aksjomatu 4 i lematu 1. □

Lemma 3. $G(x) \Rightarrow G \text{ ess } x$

Proof. Poprzez podstawienie do definicji 2. □

Definition 3. $E(x) \Leftrightarrow \forall \phi (\phi \text{ ess } x \Rightarrow \Box \exists x : \phi(x))$

Axiom 5. $P(E)$

Theorem 1. $\Box \exists x : G(x)$

Proof. Na podstawie definicji 1, lematu 3 i aksjomatu 5. □

3. Code listings

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Listing 1. *Hello world* w HTML

```
1 <html>
2   <head>
3     <title>Hello world!</title>
4   </head>
5   <body>
6     Hello world!
7   </body>
8 </html>
```

Sed feugiat. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Ut pellentesque augue sed urna. Vestibulum diam eros, fringilla et, consectetur eu, nonummy id, sapien. Nullam at lectus. In sagittis ultrices mauris. Curabitur malesuada erat sit amet massa. Fusce blandit. Aliquam erat volutpat. Aliquam euismod. Aenean vel lectus. Nunc imperdiet justo nec dolor.

Listing 2. Generowanie sekwencji Collatza w języku C++

```
147 class Collatz {
148   private:
149     unsigned current_val_;
150     void update_val() {
151         if( current_val_ % 2 == 0 )
152             current_val_ /= 2;
153         else
154             current_val_ = current_val_ * 3 + 1;
155     }
156
157   public:
158     explicit Collatz(unsigned initial_value) :
159         current_val_(initial_value) {}
160     void print_sequence() {
161         unsigned i = 1;
162         while( current_val_ > 1 ) {
```

```
163         std::cout
164             << "val_" << i << "_=" << current_val_
165             << std::endl;
166         update_val(); ++i;
167     }
168 }
169 };
170
171 int main() {
172     // prints Collatz sequence, starting from 194375
173     Collatz seq(194375);
174     seq.print_sequence();
175     return 0;
176 }
```

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4. Summatio

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References

- [1] M. Goossens, F. Mittelbach, and A. Samarin, *The LaTeX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.
- [2] K. Szczypiorski, A. Janicki, and S. Wendzel, “The Good, The Bad And The Ugly: Evaluation of Wi-Fi Steganography”, *Journal of Communications*, vol. 10, no. 10, pp. 747–752, 2015.
- [3] B. Bencsáth, G. Pék, L. Buttyán, and F. M., “Duqu: A Stuxnet-like malware found in the wild”, Laboratory of Cryptography and System Security, Hungary, Tech. Rep., 2011.
- [4] *FIPS 180-4: Secure Hash Standard (SHS)*, 2015.
- [5] P. Woźniak, “Programowanie kwadratowe w usuwaniu efektu rozmycia ruchu w fotografii cyfrowej”, M.S. thesis, Wydział Elektroniki i Technik Informacyjnych, Politechnika Warszawska, 2018.
- [6] A. M. Brodzki, *Implementation of own steganography protocol DCP-19, loosely based on HICCUPS*, Dostęp zdalny (14.03.2019): <https://github.com/ArturB/DCP-19>, 2019.
- [7] C. Benzmueller and B. W. Paleo, “Automating Gödel’s Ontological Proof of God’s Existence with Higher-order Automated Theorem Provers”, in *European Conference on Artificial Intelligence*, IOS Press, 2014.
- [8] K. Gödel, “Texts relating to the ontological proof”, in *Unpublished Essays and Lectures*, Oxford University Press, 1995, pp. 429–437.
- [9] H. Wang, “A logical journey: From gödel to philosophy.”, in. A Bradford Book, 1997, p. 316.
- [10] R. C. Koons, “Sobel on Gödel’s Ontological Proof”, Dostęp zdalny (25.04.2019): <http://www.robkoons.net/media/69b0dd04a9d2fc6dffff80b4ffffd524.pdf>, 2005.

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List of Symbols and Abbreviations

EiTI – Wydział Elektroniki i Technik Informacyjnych

PW – Politechnika Warszawska

WEIRD – ang. *Western, Educated, Industrialized, Rich and Democratic*

Appendix 1. Appendix 1

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The logo of the Warsaw University of Technology, featuring the words "Politechnika" and "Warszawska" in a bold, dark blue, sans-serif font. "Politechnika" is on the top line and "Warszawska" is on the bottom line, both centered.

Figure 1.1. Current logo of Warsaw University of Technology.

Appendix 2. Appendix 2

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