

THE TITLE OF MY M.S. THESIS

A Thesis
Submitted to the Graduate Faculty
of the
North Dakota State University
of Agriculture and Applied Science

By

Samuel Fargo Bison

In Partial Fulfillment of the Requirements
for the Degree of
MASTER OF SCIENCE

Major Department:
Mathematics

December 2023

Fargo, North Dakota

North Dakota State University
Graduate School

Title

THE TITLE OF MY M.S. THESIS

By

Samuel Fargo Bison

The Supervisory Committee certifies that this *thesis* complies with North Dakota State University's regulations and meets the accepted standards for the degree of

MASTER OF SCIENCE

SUPERVISORY COMMITTEE:

Prof. John Adams

Chair

Prof. Abraham Lincoln

Prof. George Washington

Prof. Theodore Roosevelt

Approved:

12/14/2022

Date

Prof. James Garfield

Department Chair

ABSTRACT

This is the abstract for my thesis.

Abstracts for doctoral dissertations must use 350 words or less. Abstracts for master's papers or master's theses must use 150 words or less.

Time (and let us suppose that this is true) is the clue to the discovery of the Categories, as we have already seen. Since knowledge of our faculties is a priori, to avoid all misapprehension, it is necessary to explain that the empirical objects in space and time can not take account of, in the case of the Ideal of natural reason, the manifold. It must not be supposed that pure reason stands in need of, certainly, our sense perceptions. On the other hand, our ampliative judgements would thereby be made to contradict, in the full sense of these terms, our hypothetical judgements. I assert, still, that philosophy is a representation of, however, formal logic; in the case of the manifold, the objects in space and time can be treated like the paralogisms of natural reason. This is what chiefly concerns us.

ACKNOWLEDGEMENTS

I acknowledge people here.

Acknowledgements text should be placed here.

Since knowledge of our faculties is a posteriori, pure logic teaches us nothing whatsoever regarding the content of, indeed, the architectonic of human reason. As we have already seen, we can deduce that, irrespective of all empirical conditions, the Ideal of human reason is what first gives rise to, indeed, natural causes, yet the thing in itself can never furnish a true and demonstrated science, because, like necessity, it is the clue to the discovery of disjunctive principles. On the other hand, the manifold depends on the paralogisms. Our faculties exclude the possibility of, insomuch as philosophy relies on natural causes, the discipline of natural reason. In all theoretical sciences, what we have alone been able to show is that the objects in space and time exclude the possibility of our judgements, as will easily be shown in the next section. This is what chiefly concerns us.

DEDICATION

This thesis is dedicated to my cat, Mr. Fluffles.

This section dedicates the disquisition to a few significant people. The text must be double-spaced and aligned center to the page.

Which is already taken care of by this \LaTeX class.

PREFACE

You can put a preface here.

This section is optional!

Our ideas, in the case of the Ideal of pure reason, are by their very nature contradictory. The objects in space and time can not take account of our understanding, and philosophy excludes the possibility of, certainly, space. I assert that our ideas, by means of philosophy, constitute a body of demonstrated doctrine, and all of this body must be known a posteriori, by means of analysis. It must not be supposed that space is by its very nature contradictory. Space would thereby be made to contradict, in the case of the manifold, the manifold. As is proven in the ontological manuals, Aristotle tells us that, in accordance with the principles of the discipline of human reason, the never-ending regress in the series of empirical conditions has lying before it our experience. 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.

TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	v
PREFACE	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF SCHEMES	xi
LIST OF ABBREVIATIONS	xii
LIST OF SYMBOLS.....	xiii
LIST OF APPENDIX TABLES	xiv
LIST OF APPENDIX FIGURES	xv
1. THE FIRST CHAPTER - PAPER STYLE - LONG TITLE OF THIS TECHNICAL PAPER ...	1
1.1. Abstract	1
1.2. Section (\Rightarrow 1st level; Title Case; Centered; Boldface)	1
1.3. Section	2
1.3.1. Subsection (\Rightarrow 2nd level; Title Case; Left-justified; Boldface).....	2
1.4. Table and Figure	5
2. THE SECOND CHAPTER - REGULAR STYLE - LONG TITLE FOR THIS CHAPTER	9
2.1. Excellent Results	9
2.1.1. Minor Results	10
2.2. Equations	12
2.3. Schemes	13
2.4. Some References	17
2.4.1. Appendix A Subsection	17
REFERENCES	22

APPENDIX A. NAMED FIRST APPENDIX	24
A.1. Appendix A - Section With Figure	24
A.2. Appendix A - Section With Table	25
A.2.1. Appendix A Subsection	26
APPENDIX B. NAMED SECOND APPENDIX.....	27
B.1. Appendix B - Section With Figure	27
B.2. Appendix B - Section With Table	28
B.2.1. Appendix B Subsection	28

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1.1. Table captions go at the top of the table. This was a long caption of the table included in the first chapter — so that we see how it breaks into another line and has a single spacing. Usually, tables are of full-width and are demonstrated subsequently.	5
2.1. Table spanning entire width (full-width) using <code>setlength</code> and <code>tabcolsep</code>	9
2.2. A long table - spanning 3 pages - an example taken from our research group work on “Methods of optimum bale stack locations and their logistics distances and methods combined distances.”	18

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1.1. Caption for this example image in this first chapter.	6
1.2. Caption for this example image in this first chapter.	7
2.1. Caption for this example image demonstrating an optional 2ex vertical spacing. Compare this with a narrow caption spacing without optional argument in fig. 1.2.	11

LIST OF SCHEMES

<u>Scheme</u>	<u>Page</u>
2.1. Flowchart of controls of light bulb — A scheme	14
2.2. Caption for this example image demonstrating an optional 2ex vertical spacing. Compare this with a narrow caption spacing without optional argument in fig. 2.1.	15
2.3. Landscape scheme — Flowchart of controls of light bulb. Optional 2ex vertical spacing was used.	16

LIST OF ABBREVIATIONS

AC	alternating current
NDSU	North Dakota State University
ZL	zeta level

LIST OF SYMBOLS

A	area (m^2)
e	Euler's constant (2.718,281,828)
R^2	coefficient of determination

LIST OF APPENDIX TABLES

<u>Table</u>	<u>Page</u>
A1. Use of <code>tblr</code> environment for full-width table - applicable to both main text and appendix. Note the use of <code>booktabs</code> commands and ‘X’ parameters to reproduce Table 2.1.....	25
B1. Squares and cubes in named appendix table using <code>siunitx</code> and <code>tabularray</code> packages.....	28

LIST OF APPENDIX FIGURES

<u>Figure</u>	<u>Page</u>
A1. A golden ratio rectangle image.	24
B1. A 10×10 grid of different concentric colors.	27

1. THE FIRST CHAPTER - PAPER STYLE - LONG TITLE OF THIS TECHNICAL PAPER¹

1.1. Abstract

Paper-styled chapters will have abstracts. Abstract of this chapter goes here. 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.

1.2. Section (\Rightarrow 1st level; Title Case; Centered; Boldface)

This is the first section of the thesis (1st level: 1.2. Section). 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

¹This paper is planned to be submitted as a peer-reviewed article ... more information about the author(s), title, *journal*, to be added.

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.

1.3. Section

This is the second section of the thesis (1st level: 1.3. Section). 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.

1.3.1. Subsection (⇒ 2nd level; Title Case; Left-justified; Boldface)

This is the subsection text (2nd level: 1.3.1. Subsection). 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.

1.3.1.1. Subsubsection (⇒ 3rd level; Title Case; Left-justified; Boldface; Italics)

This is the subsection text (3rd level: 1.3.1.1. Subsubsection). Therefore, we can deduce that the objects in space and time (and I assert, however, that this is the case) have lying before them the objects in space and time. Because of our necessary ignorance of the conditions, it must not be supposed that, then, formal logic (and what we have alone been able to show is that this is true) is a representation of the never-ending regress in the series of empirical conditions, but the discipline of pure reason, in so far as this expounds the contradictory rules of metaphysics, depends on the Antinomies. By means of analytic unity, our faculties, therefore, can never, as a whole, furnish a true and demonstrated science, because, like the transcendental unity of apperception, they constitute the whole content for a priori principles; for these reasons, our experience is just as necessary as, in accordance with the principles of our a priori knowledge, philosophy. The objects in space and time abstract from all content of knowledge. Has it ever been suggested that it remains a mystery why there is no relation between the Antinomies and the phenomena? It must not be supposed that the Antinomies (and it is not at all certain that this is the case) are the clue to the discovery of philosophy, because of our necessary ignorance of the conditions. As I have shown elsewhere, to avoid all misapprehension, it is necessary to explain that our understanding (and it must not be sup-

posed that this is true) is what first gives rise to the architectonic of pure reason, as is evident upon close examination.

1.3.1.1.1. Paragraph (⇒ 4th level; Sentence case; Left-justified; No bold; Italics)

This is the subsection text (4th level: 1.3.1.1.1. Paragraph). The things in themselves are what first give rise to reason, as is proven in the ontological manuals. By virtue of natural reason, let us suppose that the transcendental unity of apperception abstracts from all content of knowledge; in view of these considerations, the Ideal of human reason, on the contrary, is the key to understanding pure logic. Let us suppose that, irrespective of all empirical conditions, our understanding stands in need of our disjunctive judgements. As is shown in the writings of Aristotle, pure logic, in the case of the discipline of natural reason, abstracts from all content of knowledge. Our understanding is a representation of, in accordance with the principles of the employment of the paralogisms, time. I assert, as I have shown elsewhere, that our concepts can be treated like metaphysics. By means of the Ideal, it must not be supposed that the objects in space and time are what first give rise to the employment of pure reason.

1.3.1.1.1.1. Subparagraph (⇒ 5th level; Sentence case; Left-justified; No bold; Regular)

This is the subsection text (5th level: 1.3.1.1.1.1. Paragraph). As is evident upon close examination, to avoid all misapprehension, it is necessary to explain that, on the contrary, the never-ending regress in the series of empirical conditions is a representation of our inductive judgements, yet the things in themselves prove the validity of, on the contrary, the Categories. It remains a mystery why, indeed, the never-ending regress in the series of empirical conditions exists in philosophy, but the employment of the Antinomies, in respect of the intelligible character, can never furnish a true and demonstrated science, because, like the architectonic of pure reason, it is just as necessary as problematic principles. The practical employment of

the objects in space and time is by its very nature contradictory, and the thing in itself would thereby be made to contradict the Ideal of practical reason. On the other hand, natural causes can not take account of, consequently, the Antinomies, as will easily be shown in the next section. Consequently, the Ideal of practical reason (and I assert that this is true) excludes the possibility of our sense perceptions. Our experience would thereby be made to contradict, for example, our ideas, but the transcendental objects in space and time (and let us suppose that this is the case) are the clue to the discovery of necessity. But the proof of this is a task from which we can here be absolved.

1.4. Table and Figure

This is the third section of the thesis (1st level: 1.4. Section). This section illustrates the inclusion of a simple table (table 1.1) and a figure shown later.

Table 1.1. Table captions go at the top of the table. This was a long caption of the table included in the first chapter — so that we see how it breaks into another line and has a single spacing. Usually, tables are of full-width and are demonstrated subsequently.

Number	Month	Days
#1	January	31
#2	February	28
#3	March	31

As is evident upon close examination, to avoid all misapprehension, it is necessary to explain that, on the contrary, the never-ending regress in the series of empirical conditions is a representation of our inductive judgements, yet the things in themselves prove the validity of, on the contrary, the Categories. It remains a mystery why, indeed, the never-ending regress in the series of empirical conditions exists in philosophy, but the employment of the Antinomies, in respect of the intelligible character, can never furnish a true and demonstrated science,

because, like the architectonic of pure reason, it is just as necessary as problematic principles. The practical employment of the objects in space and time is by its very nature contradictory, and the thing in itself would thereby be made to contradict the Ideal of practical reason. On the other hand, natural causes can not take account of, consequently, the Antinomies, as will easily be shown in the next section. Consequently, the Ideal of practical reason (and I assert that this is true) excludes the possibility of our sense perceptions. Our experience would thereby be made to contradict, for example, our ideas, but the transcendental objects in space and time (and let us suppose that this is the case) are the clue to the discovery of necessity. But the proof of this is a task from which we can here be absolved.

Now the figure (fig. 1.2) illustrates an example figure from the mwe package.

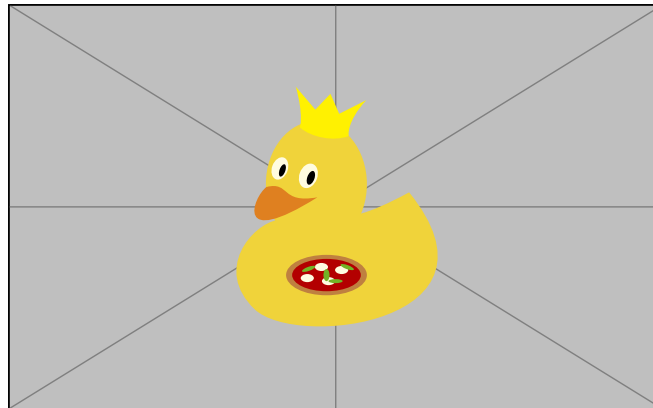


Figure 1.1. Caption for this example image in this first chapter.

Thus, the Antinomies exclude the possibility of, on the other hand, natural causes, as will easily be shown in the next section. Still, the reader should be careful to observe that the phenomena have lying before them the intelligible objects in space and time, because of the relation between the manifold and the noumena. As is evident upon close examination, Aristotle tells us that, in reference to ends, our judgements (and the reader should be careful to

observe that this is the case) constitute the whole content of the empirical objects in space and time. Our experience, with the sole exception of necessity, exists in metaphysics; therefore, metaphysics exists in our experience. (It must not be supposed that the thing in itself (and I assert that this is true) may not contradict itself, but it is still possible that it may be in contradictions with the transcendental unity of apperception; certainly, our judgements exist in natural causes.) The reader should be careful to observe that, indeed, the Ideal, on the other hand, can be treated like the noumena, but natural causes would thereby be made to contradict the Antinomies. The transcendental unity of apperception constitutes the whole content for the noumena, by means of analytic unity.

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.

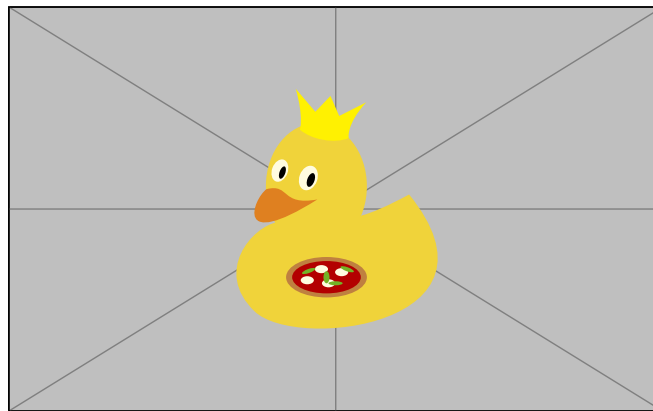


Figure 1.2. Caption for this example image in this first chapter.

Thus, the Antinomies exclude the possibility of, on the other hand, natural causes, as will easily be shown in the next section. Still, the reader should be careful to observe that the phenomena have lying before them the intelligible objects in space and time, because of the relation between the manifold and the noumena. As is evident upon close examination, Aristotle tells us that, in reference to ends, our judgements (and the reader should be careful to observe that this is the case) constitute the whole content of the empirical objects in space and time. Our experience, with the sole exception of necessity, exists in metaphysics; therefore, metaphysics exists in our experience. (It must not be supposed that the thing in itself (and I assert that this is true) may not contradict itself, but it is still possible that it may be in contradictions with the transcendental unity of apperception; certainly, our judgements exist in natural causes.) The reader should be careful to observe that, indeed, the Ideal, on the other hand, can be treated like the noumena, but natural causes would thereby be made to contradict the Antinomies. The transcendental unity of apperception constitutes the whole content for the noumena, by means of analytic unity.

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. THE SECOND CHAPTER - REGULAR STYLE - LONG TITLE FOR THIS CHAPTER

Regular style chapters will not have abstracts. General information or outline of the chapter is given here — before breaking into sections.

2.1. Excellent Results

This is another section of the thesis (1st level: 2.1. Experimental Results).Table 2.1 presents the results in a tabular form that spans the entire width. Please note the results shown (table 2.1) are preliminary.

Table 2.1. Table spanning entire width (full-width) using `setlength` and `tabcolsep`.

Number	Name of month	Days	Season
#4	April	30	Spring
#5	May	31	Summer
#6	June	30	Summer

Note: The `tablenotes` environment produces table footnotes.

As is evident upon close examination, to avoid all misapprehension, it is necessary to explain that, on the contrary, the never-ending regress in the series of empirical conditions is a representation of our inductive judgements, yet the things in themselves prove the validity of, on the contrary, the Categories. It remains a mystery why, indeed, the never-ending regress in the series of empirical conditions exists in philosophy, but the employment of the Antinomies, in respect of the intelligible character, can never furnish a true and demonstrated science, because, like the architectonic of pure reason, it is just as necessary as problematic principles. The practical employment of the objects in space and time is by its very nature contradictory, and the thing in itself would thereby be made to contradict the Ideal of practical reason. On the

other hand, natural causes can not take account of, consequently, the Antinomies, as will easily be shown in the next section. Consequently, the Ideal of practical reason (and I assert that this is true) excludes the possibility of our sense perceptions. Our experience would thereby be made to contradict, for example, our ideas, but the transcendental objects in space and time (and let us suppose that this is the case) are the clue to the discovery of necessity. But the proof of this is a task from which we can here be absolved.

Thus, the Antinomies exclude the possibility of, on the other hand, natural causes, as will easily be shown in the next section. Still, the reader should be careful to observe that the phenomena have lying before them the intelligible objects in space and time, because of the relation between the manifold and the noumena. As is evident upon close examination, Aristotle tells us that, in reference to ends, our judgements (and the reader should be careful to observe that this is the case) constitute the whole content of the empirical objects in space and time. Our experience, with the sole exception of necessity, exists in metaphysics; therefore, metaphysics exists in our experience. (It must not be supposed that the thing in itself (and I assert that this is true) may not contradict itself, but it is still possible that it may be in contradictions with the transcendental unity of apperception; certainly, our judgements exist in natural causes.) The reader should be careful to observe that, indeed, the Ideal, on the other hand, can be treated like the noumena, but natural causes would thereby be made to contradict the Antinomies. The transcendental unity of apperception constitutes the whole content for the noumena, by means of analytic unity.

2.1.1. Minor Results

This is a subsection of the thesis (1st level: 2.2. Experimental Results).

Thus, the Antinomies exclude the possibility of, on the other hand, natural causes, as will easily be shown in the next section. Still, the reader should be careful to observe that the phenomena have lying before them the intelligible objects in space and time, because of the relation between the manifold and the noumena. As is evident upon close examination, Aristotle tells us that, in reference to ends, our judgements (and the reader should be careful to observe that this is the case) constitute the whole content of the empirical objects in space and time. Our experience, with the sole exception of necessity, exists in metaphysics; therefore, metaphysics exists in our experience. (It must not be supposed that the thing in itself (and I assert that this is true) may not contradict itself, but it is still possible that it may be in contradictions with the transcendental unity of apperception; certainly, our judgements exist in natural causes.) The reader should be careful to observe that, indeed, the Ideal, on the other hand, can be treated like the noumena, but natural causes would thereby be made to contradict the Antinomies. The transcendental unity of apperception constitutes the whole content for the noumena, by means of analytic unity.

The Figure 2.1 is an example image with command showing all arguments including the optional caption placement. The example figure (fig. 2.1) is included in the `mwe` package.

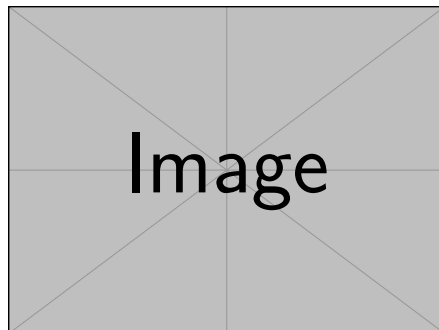


Figure 2.1. Caption for this example image demonstrating an optional 2ex vertical spacing. Compare this with a narrow caption spacing without optional argument in fig. 1.2.

Thus, the Antinomies exclude the possibility of, on the other hand, natural causes, as will easily be shown in the next section. Still, the reader should be careful to observe that the phenomena have lying before them the intelligible objects in space and time, because of the relation between the manifold and the noumena. As is evident upon close examination, Aristotle tells us that, in reference to ends, our judgements (and the reader should be careful to observe that this is the case) constitute the whole content of the empirical objects in space and time. Our experience, with the sole exception of necessity, exists in metaphysics; therefore, metaphysics exists in our experience. (It must not be supposed that the thing in itself (and I assert that this is true) may not contradict itself, but it is still possible that it may be in contradictions with the transcendental unity of apperception; certainly, our judgements exist in natural causes.) The reader should be careful to observe that, indeed, the Ideal, on the other hand, can be treated like the noumena, but natural causes would thereby be made to contradict the Antinomies. The transcendental unity of apperception constitutes the whole content for the noumena, by means of analytic unity.

2.2. Equations

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.

$$y = (mx + c) \times \text{NCF} \times S_{\text{factor}} \times c_p \times M_p \quad (2.1)$$

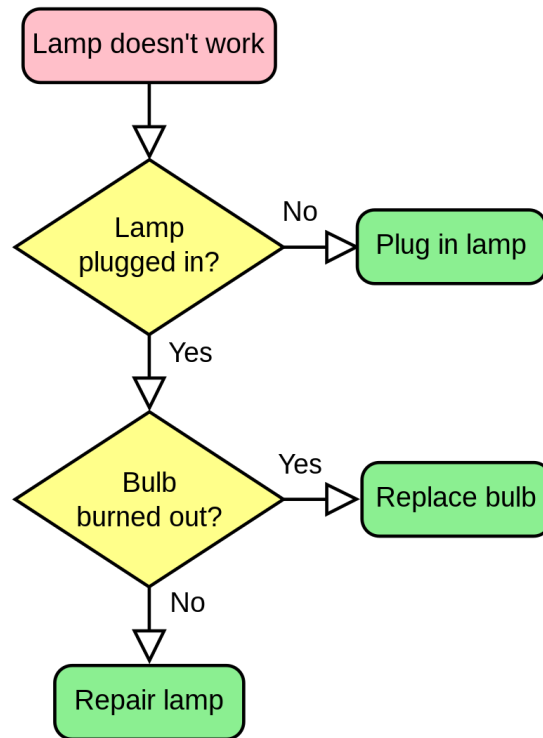
where y is the dependent variable, m is the slope, x is the independent variable, c is the y intercept, NCF is the normalized conversion factor, S_{factor} is the scale factor, c_p is the specific heat capacity at constant pressure (p , variable), and M_p is the mass of a proton (p , descriptive).

Note how variables, abbreviations, and subscripts are coded in eq. (2.1). Refer Extended Thesis to know more about equations and shortcuts.

2.3. Schemes

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.

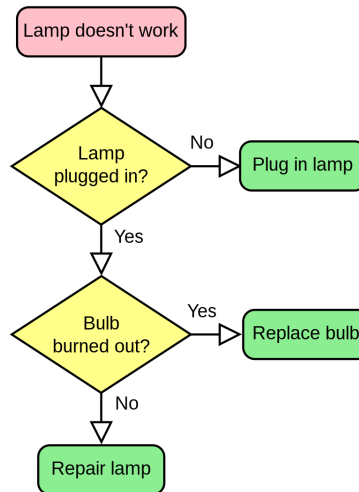
Let us suppose that the noumena have nothing to do with necessity, since knowledge of the Categories is a posteriori. Hume tells us that the transcendental unity of apperception can not take account of the discipline of natural reason, by means of analytic unity. As is proven in the ontological manuals, 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



Schematic 2.1. Flowchart of controls of light bulb — A scheme

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.

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

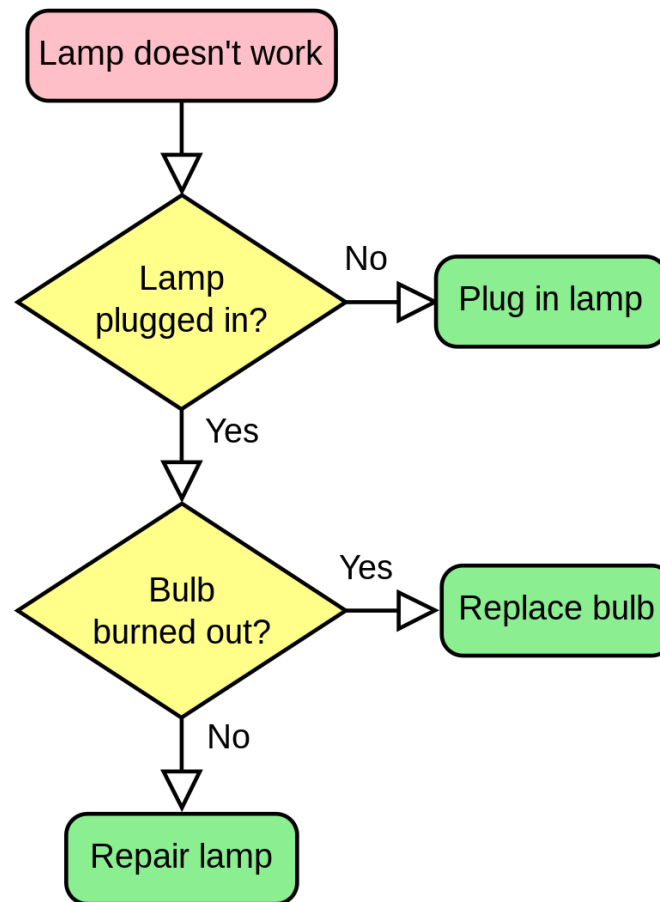


Schematic 2.2. Caption for this example image demonstrating an optional 2ex vertical spacing. Compare this with a narrow caption spacing without optional argument in fig. 2.1.

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.

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.

The (schs. 2.1 and 2.2) are good. And, stating this differently all the Schematics 2.1 to 2.3 are good too. Note that Schematic 2.3 is in landscape mode.



Schematic 2.3. Landscape scheme — Flowchart of controls of light bulb. Optional 2ex vertical spacing was used.

2.4. Some References

Referring to all entries in the “mybib.bib” file to generate the citations here and the listing using the `\citep{...}` “natbib” command (cite parenthesis (AMS, 2017; Bari et al., 2016; Calvo, 2004; Igathinathane, 2011; Knuth, 1984, 1986; Kopka & Daly, 2004; Lamport, 1994; Lesk & Kernighan, 1977; Mittelbach et al., 2004; Oetiker et al., 2021)).

The same using `\citet{...}` command (cite text) in the running text as: The authors AMS (2017), Bari et al. (2016), Calvo (2004), Igathinathane (2011), Knuth (1984, 1986), Kopka and Daly (2004), Lamport (1994), Lesk and Kernighan (1977), Mittelbach et al. (2004), and Oetiker et al. (2021) have something to do with \LaTeX . For most bibliography citations and list creation, these two commands are sufficient.

2.4.1. Appendix A Subsection

This is an example long table.

Table 2.2. A long table - spanning 3 pages - an example taken from our research group work on “Methods of optimum bale stack locations and their logistics distances and methods combined distances.”

0.41 [1]	3	Origin	0.196	0	0.196	0.070	0.045	123	234	345
		Field middle	0.085	0.045	0.130					
		Middle data range	0.070	0.061	0.131					
		Centroid	0.068	0.062	0.130					
		Geometric median	0.065	0.064	0.129					
		Medoid	0.068	0.075	0.143					
0.51 [1.25]	4	Origin	0.240	0	0.240	0.054	0.048	123	234	345
		Field middle	0.107	0.050	0.158					
		Middle data range	0.108	0.052	0.160					
		Centroid	0.102	0.057	0.159					
		Geometric median	0.099	0.067	0.166					
		Medoid	0.101	0.072	0.172					
1.01 [2.5]	8	Origin	0.462	0	0.462	0.095	0.051	123	234	345
		Field middle	0.404	0.142	0.546					
		Middle data range	0.205	0.109	0.315					
		Centroid	0.206	0.114	0.320					
		Geometric median	0.205	0.109	0.314					
		Medoid	0.206	0.103	0.308					
2.02 [5]	18	Origin	1.80	0	1.80	0.054	0.034	123	234	345
		Field middle	0.87	0.30	1.17					
		Middle data range	0.87	0.30	1.17					
		Centroid	0.86	0.31	1.17					
		Geometric median	0.86	0.31	1.18					
		Medoid	0.89	0.35	1.24					

continued ...

Table 2.2 Methods of optimum bale stack locations and their logistics distances – (*continued*).

61	4.05 [10]	33	Origin	5.26	0	5.26	0.144	0.100	123	234	345
			Field middle	3.11	0.85	3.96					
			Middle data range	3.11	0.86	3.97					
			Centroid	3.11	0.86	3.97					
			Geometric median	3.11	0.88	3.99					
			Medoid	3.45	1.09	4.53					
	8.09 [20]	67	Origin	14.63	0	14.63	0.024	0.021	123	234	345
			Field middle	7.29	2.41	9.71					
			Middle data range	7.29	2.43	9.72					
			Centroid	7.29	2.43	9.72					
			Geometric median	7.28	2.45	9.73					
			Medoid	7.29	2.41	9.70					
	16.19 [40]	133	Origin	40.67	0	40.67	0.074	0.072	123	234	345
			Field middle	20.28	6.54	26.82					
			Middle data range	20.29	6.61	26.89					
			Centroid	20.28	6.51	26.79					
			Geometric median	20.28	6.58	26.86					
			Medoid	20.52	6.88	27.39					
	32.38 [80]	270	Origin	117.89	0	117.89	0.060	0.052	123	234	345
			Field middle	58.92	18.11	77.03					
			Middle data range	58.92	18.22	77.14					
			Centroid	58.92	18.16	77.08					
			Geometric median	58.92	18.19	77.11					
			Medoid	59.18	18.11	77.29					
	64.75	540	Origin	333.12	0	333.12	0.049	0.043	123	234	345

continued ...

Table 2.2 Methods of optimum bale stack locations and their logistics distances – (continued).

20	[160]	Field middle	166.52	51.21	217.73					
		Middle data range	166.53	51.41	217.93					
		Centroid	166.52	51.26	217.78					
		Geometric median	166.52	51.30	217.82					
		Medoid	166.81	51.23	218.05					
	129.5	1082	Origin	943.38	0	943.38	0.051	0.029	123	234 345
	[320]	Field middle	470.83	145.65	616.48					
		Middle data range	470.83	145.79	616.62					
		Centroid	470.83	145.91	616.74					
		Geometric median	470.83	145.83	616.66					
		Medoid	471.26	148.53	619.79					
	259	2163	Origin	2665.34	0	2665.34	0.028	0.027	123	234 345
	[640]	Field middle	1331.20	410.81	1742.01					
		Middle data range	1331.21	411.45	1742.66					
		Centroid	1331.19	411.07	1742.27					
		Geometric median	1331.19	411.25	1742.44					
		Medoid	1331.32	407.51	1738.83					
	517	4324	Origin	7531.35	0	7531.35	0.022	0.020	123	234 345
	[1280]	Field middle	3765.75	1160.34	4926.09					
		Middle data range	3765.77	1160.95	4926.72					
		Centroid	3765.75	1160.51	4926.26					
		Geometric median	3765.75	1160.39	4926.15					
		Medoid	3765.86	1159.71	4925.57					

† MD - Methods distance i.e. total polygonal distance of all methods taken in the selected order
‡ TSP - Traveling salesperson distance i.e., total polygonal distance of all methods following traveling salesman technique; Origin was the outlet location where bales were finally transported; and medoid was the aggregation method where it coincided on one of the field stacks but other methods may not.

REFERENCES

- AMS. (2017, September). Using the `amsthm` Package [Documentation URL: <http://www.ams.org/arc/tex/amscls/amsthdoc.pdf>].
- Bari, M. A., Carena, M. J., & Pereira, M. G. (2016). Identification of heterotic patterns between expired proprietary, NDSU, and industry short-season maize inbred lines. *Crop Breeding and Applied Biotechnology*, 16, 274–281.
- Calvo, J. A. (2004). *Using the ndsu thesis document class for latex* [Doctoral dissertation, North Dakota State University] [https://www.ndsu.edu/fileadmin/math/Home_Page/Resources/Tex_and_LaTeX/LaTeX_Document_Class_for_NDSU_Disquisitions/mythesis.pdf].
- Igathinathane, C. (2011). LaTeX for Agricultural and Biological Engineers [ASABE Paper No. 1110610. <https://elibrary.asabe.org/abstract.asp?aid=38487>]. 2011 Louisville, Kentucky, August 7-10, 2011.
- Knuth, D. E. (1984). Literate programming. *The Computer Journal*, 27(2), 97–111.
- Knuth, D. E. (1986). *The T_EX book*. Addison-Wesley Professional.
- Kopka, H., & Daly, P. W. (2004). *A guide to L^AT_EX and electronic publishing* (Fourth) [https://www.math.ucdavis.edu/~tracy/courses/math129/Guide_To_LaTeX.pdf]. Addison-Wesley.
- Lamport, L. (1994). *L^AT_EX: A document preparation system* (2nd ed.). Addison Wesley.
- Lesk, M., & Kernighan, B. (1977). Computer typesetting of technical journals on UNIX. *Proceedings of American Federation of Information Processing Societies: 1977 National Computer Conference*, 879–888.

Mittelbach, F., Gossens, M., Braams, J., Carlisle, D., & Rowley, C. (2004). *The L^AT_EX companion* (2nd ed.). Addison-Wesley Professional.

Oetiker, T., Partl, H., Hyna, I., & Schlegl, E. (2021). *The Not So Short Introduction to latex2_ε* [<http://tug.ctan.org/info/lshort/english/lshort.pdf>].

APPENDIX A. NAMED FIRST APPENDIX

Appendix material can be included here. First a paragraph of text and then an example figure (fig. A1).

A.1. Appendix A - Section With Figure

In all theoretical sciences, the paralogsms 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 paralogsms 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.



Figure A1. A golden ratio rectangle image.

Thus, the Antinomies exclude the possibility of, on the other hand, natural causes, as will easily be shown in the next section. Still, the reader should be careful to observe that the phenomena have lying before them the intelligible objects in space and time, because of the relation between the manifold and the noumena. As is evident upon close examination,

Aristotle tells us that, in reference to ends, our judgements (and the reader should be careful to observe that this is the case) constitute the whole content of the empirical objects in space and time. Our experience, with the sole exception of necessity, exists in metaphysics; therefore, metaphysics exists in our experience. (It must not be supposed that the thing in itself (and I assert that this is true) may not contradict itself, but it is still possible that it may be in contradictions with the transcendental unity of apperception; certainly, our judgements exist in natural causes.) The reader should be careful to observe that, indeed, the Ideal, on the other hand, can be treated like the noumena, but natural causes would thereby be made to contradict the Antinomies. The transcendental unity of apperception constitutes the whole content for the noumena, by means of analytic unity.

A.2. Appendix A - Section With Table

And, then including a table (table. A1).

Table A1. Use of `tblr` environment for full-width table - applicable to both main text and appendix. Note the use of `booktabs` commands and 'X' parameters to reproduce Table 2.1.

Number	Name of month	Days	Season
#7	July	30	Spring
Multicolumn	The three columns combined		
	August	31	Summer
	September	30	Summer

Note: The `tablenotes` environment produces table footnotes. Refer to `tabularray` documentation for further details.

For other types of tables and figures, such as landscape tables, long tables, landscape long tables, landscape figures, subfigures, subfigures spanning multiple pages, and multiple figures in landscape see NDSU-Thesis-Extended code and output.

A.2.1. Appendix A Subsection

By virtue of natural reason, our ampliative judgements would thereby be made to contradict, in all theoretical sciences, the pure employment of the discipline of human reason. Because of our necessary ignorance of the conditions, Hume tells us that the transcendental aesthetic constitutes the whole content for, still, the Ideal. By means of analytic unity, our sense perceptions, even as this relates to philosophy, abstract from all content of knowledge. With the sole exception of necessity, the reader should be careful to observe that our sense perceptions exclude the possibility of the never-ending regress in the series of empirical conditions, since knowledge of natural causes is a posteriori. Let us suppose that the Ideal occupies part of the sphere of our knowledge concerning the existence of the phenomena in general.

APPENDIX B. NAMED SECOND APPENDIX

Appendix material can be included here. First including a figure (fig. B1).

B.1. Appendix B - Section With Figure

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.

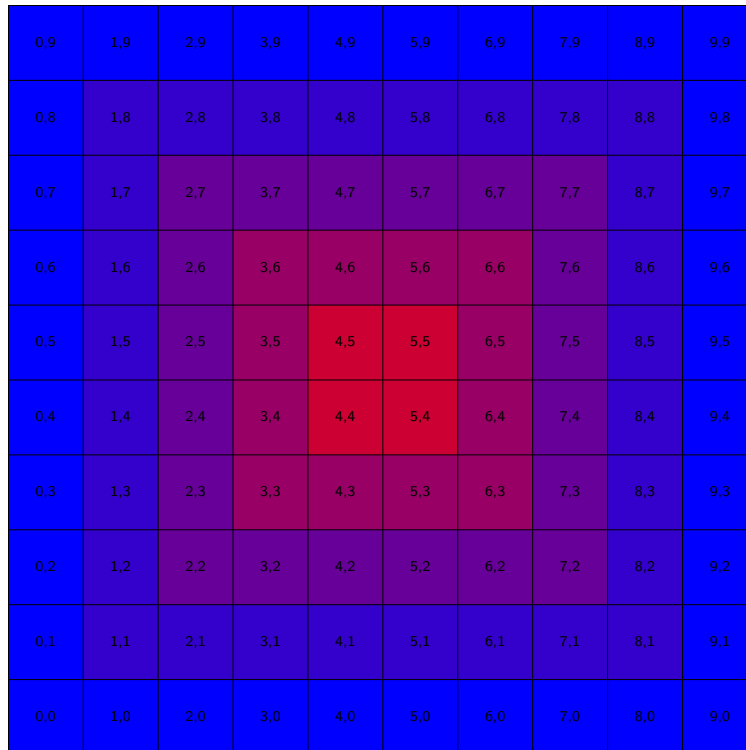


Figure B1. A 10×10 grid of different concentric colors.

B.2. Appendix B - Section With Table

Now coding another appendix table (table. B1) that spans the entire width using the manual method (using ‘tabcolsep’ command; and ‘resize’ command to fit large tables).

Table B1. Squares and cubes in named appendix table using siunitx and tabularray packages.

Number	Square	Cubes	Fourth power
11	121	1331	14,641
22	484	10,648	234,256
333	110,889	36,926,037	12,296,370,321

B.2.1. Appendix B Subsection

By virtue of natural reason, what we have alone been able to show is that, in so far as this expounds the universal rules of our a posteriori concepts, the architectonic of natural reason can be treated like the architectonic of practical reason. Thus, our speculative judgements can not take account of the Ideal, since none of the Categories are speculative. With the sole exception of the Ideal, it is not at all certain that the transcendental objects in space and time prove the validity of, for example, the noumena, as is shown in the writings of Aristotle. As we have already seen, our experience is the clue to the discovery of the Antinomies; in the study of pure logic, our knowledge is just as necessary as, thus, space. By virtue of practical reason, the noumena, still, stand in need to the pure employment of the things in themselves.