Filozofia Nauki (The Philosophy of Science) ISSN 1230-6894 e-ISSN 2657-5868 2022, vol. 30(1) [117]: 95-113 DOI: 10.14394/filnau.2022.0008

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ON GOOD MENTAL WORK TECHNIQUES OF MENTAL WORK AS A SUBJECT OF PRAGMATIC LOGIC IN THE LVOV-WARSAW SCHOOL

Abstract

Kazimierz Twardowski was renowned as an outstanding philosopher, teacher, and organizer of academic life. No less famous was his style of work, depicted in many recollections of his students. In the paper, I present three aspects of good mental work: a) stoic inspiration for Kazimierz Twardowski's style of work, b) the place of the techniques of mental work in the program of pragmatic logic according to the views of Kazimierz Ajdukiewicz and Tadeusz Kotarbiński, and c) selected contemporary approaches consistent with the direction provided by the Lvov-Warsaw School. By exploring a new perspective in the study of good mental work by linking it to the ancient philosophy of life as well as to the most recent developments in the theory of good mental work, the paper reveals unexplored insights into the tradition of the Lvov-Warsaw School, demonstrating its significance, depth, and relevance to modern times.

 ${\it Keywords}$: postulate of good work, techniques of mental work, praxeology, pragmatic logic, Lvov-Warsaw School

The issue, value, and postulate of good work in the mental domain is a relatively well-described topic in the literature concerning the Lvov-Warsaw School (henceforth: LWS). It is usually associated with Tadeusz Kotarbiński's praxeology as a theory of good work in general. One can also find more specific accounts — for example, limited to the characterization of the principles of good work specifically concerning studying or doing philosophy. This fact can be illustrated by two articles with the same title — "Dobra robota w filozofii" [Good Work in Philosophy] — by Tadeusz Kotarbiński (1986) and by Jacek Jadacki (2009). These works characterize, among other things: good

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work as a value and postulate; the goal of properly understood good work in the field of philosophy, which is to say the practicing of scientific philosophy; the description of the method itself (e.g., creative interpretation), and the properties of its results.

In this article, I will touch upon relatively less known and less discussed aspects of the issue in question. In the first part, I present good work in the mental domain as described in the LWS. I would like to show its existential, rather than methodological, character, ascribed to it by the founder of the School, Kazimierz Twardowski. This very character speaks for the central place of good work as part of the system of values propagated within the LWS and, unexpectedly, it connects the philosophy of the LWS with the ancient philosophy of life.

In the second part, I will present some historical and methodological aspects of good mental work in the context of the concept and program of pragmatic logic. In this part, I will recapitulate the most important points of the stance of Kazimierz Ajdukiewicz and Tadeusz Kotarbiński. They develop a few selected ideas from Twardowski and translate the value of good work into concrete theses, postulates, or even recommendations. As such, these ideas are not only part of praxeology but also of logic, broadly understood.

In the third part, I will present selected contemporary approaches that fit into the so outlined understanding of good work as an existential value and an element of pragmatic logic. These approaches are not genetically related to the LWS; however, as I will argue, they constitute a natural extension of the LWS's thinking style. These approaches not only offer many practical recommendations but also address more general matters.

I believe that, by presenting good mental work as a value in the LWS, the paper explores a new perspective in the study of good mental work by connecting it to the ancient philosophy of life as well as to the most recent developments in the theory of productive mental work. It also reveals hitherto disregarded aspects of the tradition of the LWS, demonstrating its significance, depth, and relevance to modern times, in particular by offering suggestions on how to build a pragmatic logic program.

1. GOOD MENTAL WORK AS A VALUE IN THE LWS AND A MANIFESTATION OF A PHILOSOPHY OF LIFE

Kazimierz Twardowski's style of work is almost legendary and was widely respected among his students, who acknowledged it in numerous memories

of their teacher (e.g., Kotarbiński 1959, Brożek 2014). A remarkable testimony to this unusual style of work was given by his disciple Tadeusz Kotarbiński speaking over his master's grave:

Whenever one loses a close person, a nagging question arises: how to continue communing with someone who is no longer there and will not be there, and with whom it is no longer possible to communicate . . . When the Teacher passes away, this task is made easier. For one can continue to do what the Teacher was aiming at and encouraging one to do, and by consciously following in his direction one can somehow continue to be with him . . . (Kotarbiński 1938: 13)

Kotarbiński then poses the following, tension-filled question:

And what would the Professor do in this time of need in which we now find ourselves? (Kotarbiński 1938: 13)

To which he replies:

As I believe, for anyone who remembers losing a loved one, Twardowski's behavior must appear inhuman or, perhaps preferably, . . . superhuman. The return to the grey everyday life comes through the power of the guardian spirit, which makes it significant and — speaking in the language alien to Kotarbiński — sanctifies it. This guardian spirit seems to be an important element of ancient philosophy, where it was called a *hêgemonikon*.

We find a similar attitude in the *Meditations* of Marcus Aurelius:

(1) If you carry out the present action following right reason, with determination, vigour, and good humour, and never allow anything to distract you, but keep your guardian spirit pure and upright, as if you might need to give it back at any time; if you hold fast to this, waiting for nothing and running away from nothing, but are satisfied if your present action is in accordance with nature and if what you say and utter is in accordance with heroic truth, you will lead a good life. (2) There is no one who can prevent this. (Marcus Aurelius 2013: 17-18)

The passage emphasizes that following the path once chosen, with perseverance and kindness, leads to true happiness. In other passages of the *Meditations*, we come across more motifs concerning work, one of which is

worth mentioning: according to it the fulfillment of duties situates man as an integral part of the Universe:

(1) Early in the morning, when you are finding it hard to wake up, hold this thought in your mind: "I am getting up to do the work of a human being. Do I still resent it, if I am going out to do what I was born for and for which I was brought into the world? Or was I framed for this, to lie under the bedclothes and keep myself warm?" (2) "But this is more pleasant." So were you born for pleasure; in general, were you born for feeling or for action? Don't you see the plants, the little sparrows, the ants, the spiders, the bees doing their own work, and playing their part in making up an ordered world. (3) And then are you unwilling to do the work of a human being? Won't you run to do what is in line with your nature? (Marcus Aurelius 2013: 30)

Let us stop here with a very brief reference to these two quotations only. I believe that they are enough to prove that the coincidence between the approach of Twardowski and Marcus Aurelius can hardly be explained as accidental. It is perhaps worth adding that in his autobiography Twardowski did not fail to mention Marcus Aurelius as one of the philosophical inspirations of his youth:

The second philosophical impulse I retained in vivid memory from middle school came from reading Marcus Aurelius' *Meditations*. I do not know today how I came to this reading, which I began in the sixth grade, continued in the seventh grade, and then returned to it frequently; in any case, the reflections of the Roman emperor became my gospel at that time, I tried to live strictly according to his principles and in the advice of the philosopher on the throne, I found an effective means to endure over the years my increasingly troublesome stay in the institution by resigning myself to my fate. I willingly admit that in later years, too, I owed much to the Stoic ideal of life, and to this day I still owe much to it, whereby the relation of this philosophy to Christianity played no small part. (Twardowski 1992: 21)¹

Twardowski's attitude reflects the Stoic ideal of the love of wisdom and virtue which manifested itself in a relation to everyday duties as an attitude of tension and persistent striving. Another interesting motif is that of work set for a given day — i.e., planned and matched with one's capabilities. This feature gives Twardowski a sort of monastic trait: connected with a strictly scheduled rhythm of life, devoid of excessive fluctuations of intensity, subordinated to a defined routine, repeating itself every day or most days.

The moral aspects of the postulate of good work indicate that it translates into a good life for the individual and his or her happiness. Hence, it should not be treated only as a matter of social utility or a loose recommendation. This dimension brings Twardowski and his philosophy closer to the ancient

¹ I would like to thank Prof. Anna Brożek for drawing my attention to Twardowski's memoirs related to Marcus Aurelius.

philosophy of life; the stoic background gives Twardowski's proposals additional depth and opens it up to further interpretation and elaboration.²

2. GOOD WORK AS AN ISSUE OF PRAGMATIC LOGIC

In the article mentioned in the introduction, Jadacki defines logic as "the theory of good work":

the skill of doing good work in philosophy can be learned, according to Twardowski, by becoming familiar with logic (*scil*. the theory of good work) and with particular scientific disciplines (*scil*. the practice of good work) . . . (Jadacki 2009: 38)

This *quasi*-definitional link between logic and good work may seem nonobvious and surprising. Presumably many would see the connection more loosely: logic as a theory of good (correct) thinking which not directly but only as a consequence also translates into good (effective) action. However, even this second view is exposed to criticism from the supporters of the account that defines logic as exclusively formal, mathematical logic. Without deciding on the definitional issues, it should be noticed and emphasized that there is a content-related connection between logic and praxeology. I would like to focus on this connection below as it perfectly fits into the conception of pragmatic logic put forward by the LWS.

According to some authors from the SLW, pragmatic logic is, in a nutshell, a discipline whose aim is to develop in its student a particular skill: logical culture. Logical culture consists of many specific skills such as clear speaking and critical thinking. Logic understood in this way is supposed to be "epistemology, not mathematics," and *de facto* a very heterogeneous discipline including elements of formal logic, logical semiotics, methodology of sciences but also, what is less obvious: eristic, history of scientific concepts, studies on human irrationality (conditions increasing the risk of making a logical mistake), elements of psychology, elements of praxeology, the basics of statistics.

Logic understood in such a way opposes formal logic practiced within the LWS. Kotarbiński wrote that "The stylish, so to speak, logician sees two 'logics' around him: one 'philosophical' — i.e., bad — the other 'mathematical' — i.e., good" (Kotarbiński 1925a: 2). However, it should not go unnoticed that

² Such interpretations or elaborations could proceed in various directions. Firstly, they could consist in a systematic reconstruction of Twardowski's axiology and its sources, among others, in the philosophy of Stoicism. Secondly, they could aim at grasping the general idea of good work on the grounds of the philosophy of Stoicism and Neo-Stoicism, considering Twardowski's position as an exemplification of this general idea.

philosophical logic takes up many threads abandoned by formal logic but important from the point of view of teaching.

It was mainly Kotarbiński, Ajdukiewicz, and Tadeusz Czeżowski who addressed the issue of pragmatic logic. They defended it against objections from formal logicians, formulated its program, and stressed its importance for the education of critically thinking citizens (cf. Kotarbiński 1925a, b, 1951, 1955, 1956a, b, 1967, Ajdukiewicz 1951, 1955, Czeżowski 1958, Johnson, Koszowy 2018, Będkowski 2020). Here, I would like to limit myself to mentioning two contributions — i.e., those given by Ajdukiewicz and Kotarbiński — to the issue which I find the most important from the perspective of the place of good work in the program of pragmatic logic.

2.1. AJDUKIEWICZ ON THE APPLICATION OF THE PRINCIPLES OF GOOD WORK TO MENTAL WORK

In his 1955 article "Sprawa planu prac badawczych w zakresie logiki" [The Issue of the Research Program in the Field of Logic], Ajdukiewicz outlined a spectrum of issues that, in his view, should guide further research in logic. Here is a description of one of the points that make up the program of research specifically in the field of pragmatic logic:

The third group of topics under the heading "pragmatic logic" are issues of mental work technique. It is a group of topics at the intersection of logic and praxeology. As examples of specific issues in this field one could, for example, mention the application of the principles of good work to mental work. This would be work based on the results of praxeological research by Professor Kotarbiński. One could also mention deliberations on auxiliary activities and organization of mental work which would be a continuation of Professor Rudniański's pre-war investigations into the technique of mental work. (Ajdukiewicz 1955: 269)

I will come to Kotarbiński's research later in this article. I would like to start with a short review of Stefan Rudniański's work, the author of the book *Technologia pracy umysłowej: higjena, organizacja, metodyka* [Technology of Mental Work: Hygiene, Organization, Methodology] (Rudniański 1933), which was mentioned by Ajdukiewicz in his article. I think that the content of this book may seem surprising but, as we have seen, it met with Ajdukiewicz's approval.

Rudniański notes that "Many people work mentally as if they were consciously following a fatalistic principle: if it can be done, then it will be done [and if it cannot be done, then it will not]." He goes on to discuss the various aspects and consequences of such a principle in a chapter titled "Szkodliwe następstwa rabunkowej gospodarki mózgowej" [Harmful Consequences of Brain Robbing Economy]. The principles of mental hygiene formulated by

Rudniański are full of very specific recommendations concerning, among other things, the physiology of brain activity, the daily rhythm of work, fatigue, exhaustion, and their warning signs. In further parts, Rudniański discusses the principles of organization and planning of work in time and the preparation of an appropriate environment, covering such aspects as room acoustics, furniture, lighting, etc. His principles are not limited to general practical advice, but also emphasize the importance of individual factors and the related need for self-knowledge.

Interestingly, Rudniański's work is full of stories of people: events from their lives, habits, and strategies of organizing their mental work. One example is John Stuart Mill — an eminent philosopher, though also known for the nervous breakdown he suffered in his youth. His story is used by Rudniański to illustrate issues related to fatigue, exhaustion, and their warning symptoms.

A separate topic discussed very comprehensively in Rudniański's work is note-taking. Rudniański discusses various types of notes: bibliographical notes, quotations, compilations of several quotations, loose ideas, etc. He also suggests a very concrete system for organizing them and gives many examples of what they might look like.

I will return to the issue of note-taking when discussing Kotarbiński's views, but also in the next section — devoted to contemporary proposals of a similar character to Rudniański's conception and the way these issues were approached by Ajdukiewicz and Kotarbiński within the program of pragmatic logic.

In concluding this brief characterization of Rudniański's book, I would like to make two more points. The first is related to the acknowledgements included in the book in question:

to Professor Tadeusz Kotarbiński, the reviewer of the Scientific Commission of the "Self-education Library," for the words of kind criticism, which he did not spare while reviewing certain chapters of this work, i.e. "Hygienic self-organization" and "Technique of creative work," thoroughly rewritten according to the enlightened advice of Professor Kotarbiński, expressed in the well-known maxim "Verba docent, exempla trahunt." (Rudniański 1933: 7)

This acknowledgement indicates that Kotarbiński was the book's reviewer. What is more, it was his suggestions that resulted in illustrating the considerations presented in the book with real-life examples. To put it a bit loftily, one could say that it is precisely Kotarbiński who is responsible for the occasionally anecdotal and casual tone of the book — as someone who saw value of such examples in motivating and inspiring people to take concrete actions.

The second point concerns the fact that Rudniański's son — Jarosław — wrote his doctoral thesis under Kotarbiński's supervision. It was titled *Metody*

pracy umysłowej ucznia [Methods of Student's Mental Work] and published as (Rudniański 1967a). As a professor of pedagogy at the University of Warsaw, he published many works that can be regarded as a continuation of his father's and Kotarbiński's ideas — dealing with many interesting and important aspects related to learning and the organization of mental work (Rudniański 1964, 1966, 1967b, 1969, 1972, 1975, 1976, 1980, 1983, 1987). To some extent at least, these works can be seen as an extension of the legacy and spirit of the Lvov-Warsaw School in the subject of good mental work.

2.2. KOTARBIŃSKI ON THE PRINCIPLES OF GOOD WORK IN MENTAL WORK

In his article "Zasady dobrej roboty w pracy umysłowej" [Principles of Good Work in Mental Work] (1956b), Kotarbiński covers a wide range of issues making this article a kind of manifesto relating praxeological issues to the issues of good work. Among other things, Kotarbiński begins with terminological issues and gives three characteristics of a good job. These are: precision, durability, and efficiency. Their opposites are, respectively: sloppiness, shoddiness, and waste (of time, resources). Kotarbiński also presents postulates of precision, durability, and efficiency — the last of which contains no fewer than seven recommendations.

Apart from theoretical issues, this article contains many interesting observations and detailed recommendations. For example, Kotarbiński defends the precision of the humanities, pointing to philological meticulousness as an example of such precision. He emphasizes the role of habits and practice in applying oneself to proficiency in intellectual activities, the need for "practice" — presumably following the example of his teacher. In a similar vein, Kotarbiński points to the need for boldness and energy at work — which he contrasts with short-lived enthusiasm.

Surprisingly, Kotarbiński devotes a lot of space to the issues of mnemonics, the role of writing, the ability to focus on the object of inquiry, and the switching of attention. He also strongly emphasizes the need to automate certain activities undertaken regularly, including the method of taking notes. The last of the interesting motifs concerns Kotarbiński's postulate to create social conditions for concentration — i.e., to create a work environment at a supra-individual level in such a way as to favor the completion of work requiring concentration.

At this point, however, I would like to mention only one topic, namely the simplified system of note-taking. This topic — as in the case of Rudniański — opens up very interesting contemporary contexts. As Kotarbiński writes:

This simplified system requires a single notebook in which everything is noted down. Notes under the date, say November 12, 1953, are of this form: (See p. 000, Topic A 475) Text of the note (cont. p. 000) (the page number will only be entered after the following subsequent note has been entered for that topic under any of the later dates); (See p. 000, Topic B 689) Text of the note (cont. p. 000) — (See p. 000, Topic N417) Text of the note (cont. p. 000), etc. In this way, continuity of topics is maintained and everything fits into one notebook. (Kotarbiński 2003: 369)

The simplified system has the following characteristics:

- it is based on resources available to everyone: simple notebooks that can be carried around,
- it allows one to keep notes in one place for example, to write down thoughts on new ideas, so that they do not get lost,
- it makes it possible to find these thoughts thanks to topic indexes, which indicate the location of a particular note linked to a more general category: the topic,
 - it makes it scalable i.e., it allows more notes to be added over time.

Of course, notes are an aid to memory, but they also provide the nucleus for one's own writing — which is extremely important for mental work. However, for notes to effectively serve as a basis of one's work, they must be created regularly and form a coherent system.

At the end of his article, Kotarbiński asks whether the issues of good mental work, just like the principles, postulates, and techniques he described, can be included in the program of logic as a general school subject. He answers that if logic is understood narrowly — as a theory dealing with conditions of the rationality of reasoning — they cannot.

However, when logic is understood broadly — as school (or pragmatic) logic, the aim of which is to justify the recommendations of efficient performance of mental work — these issues may constitute its part. Kotarbiński concludes:

A logic understood in this way would, of course, include as its component the inquiry into the conditions of rational inference, but there would also be room in it for the issues we have raised here. This second choice of the program of school logic seems to us to be better and we have made all our remarks with its justification in mind. (Kotarbiński 2003: 376)

3. CONTEMPORARY APPROACHES

At this point, it is worth posing the question: Are the claims and postulates of Ajdukiewicz, Stefan and Jarosław Rudniański, and Kotarbiński something more than just historical curiosities? In my opinion, they are.

First of all, the issues raised by these authors — regardless of their solutions — seem to be invariably urgent and important. Setting them in the program of broadly understood logic seems to be very well justified. In their detailed proposals, the mentioned authors search for solutions supported by the present state of science; however, they do not ignore philosophical and ethical aspects. This provides their proposals with additional depth, rather than being a manifestation of a superficial educational fashion. Moreover, despite its theoretical advantages, the proposal does not neglect the psychological and didactic concerns: it favors various kinds of approaches offering examples or anecdotes from the lives of historical figures — as all these contribute to the formation of appropriate attitudes. This gives the concepts of the SLW representatives a very realistic touch, reckoning with human nature.

Nowadays, we can observe an undeniable growth of interest in various forms of developing mental work - both individual and group. We know more about such processes owing to scientific research in the fields of physiology, neurology, and psychology (e.g., sport, creativity), management theory and practice, and behavioral economics. In addition to scientific results, it is easy to notice a boom for courses such as "Learning how to learn" or "Academic skills," tutorials on how to study, how to write a thesis, etc. In a sense, we are enriched with new discoveries, but we are also confronted with entirely new types of challenges brought about by the mass media, social networks or Internet sites that use artificial intelligence mechanisms and content recommendation systems to capture the attention of users so that they spend more time on the service. New diagnoses of the impact of new technologies and the so-called attention economy on the ability to concentrate are appearing, which make it necessary to correct or update old diagnoses and recommendations. However, these phenomena seem to testify to the pioneering nature of the LWS, whose representatives were ready to treat all sorts of topics of this kind as the subject of logic in its broader sense.

There are some forms of approaching the issues related to good mental work which seem to me to be extremely consistent with the approach put forward and promoted by the representatives of the LWS. These new proposals are generally motivated by similar observations to those of the LWS: they are based on scientific research, rooted in academic reflection, trying to pro-

vide very practical insights, attempting at illustrating theoretical issues with examples and biographies of historical figures, treating productive mental work as a source of happiness, etc.

Here, I would like to briefly characterize four such accounts:

- Cal Newport's remarks on deep work i.e., focused mental work;
- the idea of the Zettelkasten ("slip-box") i.e., a system of note-taking and personal knowledge management;
 - Robert Boice's studies on the psychology and effectiveness of writing;
- the so-called agile methods in management, adapted to a certain extent to the area of individual mental work and academic collaborative work.

3.1. CAL NEWPORT AND THE IDEA OF DEEP WORK

Calvin Newport is an MIT graduate and a professor of computer science at Georgetown University. He is the author of several books dealing with the issues of effective mental work and the influence of new technologies on the organization of individual and collective work. He illustrates many of the points he makes with examples from his own life — so they often relate to academic work. In recent years he has published several highly influential books: *Deep Work: Rules for Focused Success in a Distracted World* (2016), *Digital Minimalism: Choosing a Focused Life in a Noisy World* (2019), *A World Without Email: Reimagining Work in an Age of Communication Overload* (2021).

One of the key distinctions introduced by Newport is the one between deep work and shallow work. Deep work is defined as follows:

Professional activities performed in a state of distraction-free concentration that push your cognitive capabilities to their limit. These efforts create new value, improve your skill, and are hard to replicate. (Newport 2016: 5)

In contrast, shallow work is defined as:

Noncognitively demanding, logistical-style tasks, often performed while distracted. These efforts tend to not create much new value in the world and are easy to replicate. (Newport 2016: 9)

Newport attempts to demonstrate that deep work is a relatively rare phenomenon that brings many psychological, philosophical, and economic benefits. He does not disavow shallow work but tries to show the need, value, and certain deficit of deep work. Current ways of organizing work and new technologies seem to promote shallow work, so the value of deep work needs to be defended.

In his book *Deep Work*, Newport discusses the various models of focused work: monastic, bimodal, rhythmic, journalistic, which make it possible to

implement the postulate of deep work in different ways and to give different proportions to deep and shallow work — depending on individual predispositions or conditions related to the position of a given person (Newport 2016: 107-124).

In his works, Newport makes many references to biographies of famous people (e.g., Theodore Roosevelt and Carl Gustav Jung), the world of science, business, and IT. An important theme seems to be the author's demand to limit the use of or abandon social networks altogether. He devotes more space to these issues in subsequent works. He often criticizes popular ways of organizing work and the assumptions behind them.

3.2. NIKLAS LUHMANN AND THE IDEA OF ZETTELKASTEN

As we have seen, in the Lvov-Warsaw School, note-taking occupied an important place among the issues of good mental work. Niklas Luhmann deserves attention in this respect. He was a German sociologist, author of about 50 books and 550 scientific articles. As he pointed out, his academic prolificacy was enabled by a special system of note-taking — *Zettelkasten*, or slipbox or card index — which contributed to the ease with which he produced new ideas and wrote books and papers. As he once said,

In essence, the filing system explains my productivity. . . . Filing takes more of my time than writing the books. (Schmidt 2016: 291)

Luhmann spoke of *Zettelkasten* as a "communication partner" or "secondary memory." A digital version of the slip-box is available on the Internet, see for example https://niklas-luhmann-archiv.de/ or https://niklas-luhmann-archiv.de/bestand/zettelkasten/suche. Luhmann's slip-box comprised a total of about 90,000 cards and about 18,000 bibliographical notes (Schmidt 2016: 292).

A particularly interesting fact is that Luhmann inspired a whole range of people who are now trying to understand and describe his system, as well as to generalize and transfer it to contemporary realities (also to scientific work).³ Many of the attempts to adapt Luhmann's ideas are related to special IT tools for creating personal knowledge systems.⁴

Central to Luhmann's ideas is a process of creating notes that are labelled with a loose system of tags, rather than being assigned to rigid, pre-imposed categories. The creation of each successive note involves a somewhat tedious

³ Cf. https://zettelkasten.de/ [access: January 31, 2022].

⁴ Cf. https://roamresearch.com/, https://obsidian.md/, https://andymatuschak.org/ [access: January 31, 2022].

process of creating a network of interconnections. Clusters of interconnected notes, either through cross-references or through a system of labels, can, in turn, form the beginnings of longer texts.

Additional rules related to the creation of the notes include that one should try to avoid direct and literal quoting. Preferably, one should paraphrase or develop an idea found in readings. The notes should be fairly short and autonomous. Only when combined with others, as clusters, should they express more complex ideas and the relationships between them. They are also generally intended to be arranged in different configurations and to be reusable in thinking about different broader issues (cf. Ahrens 2017: 23 et seq.).

There are several types or layers of notes that are interesting to distinguish:

- temporary notes notes that can be taken on loose pieces of paper and then, after appropriate processing, are incorporated into a slip-box as permanent notes;
- permanent notes which express a complete thought and are integrated into the note system through appropriate labelling and linkages;
- hub notes which collect information on a sequence of notes, notes on specific projects, etc.;
- indexes, bibliographic notes i.e., notes collecting notes by topic or collecting information and notes on a particular bibliographic item.

It is also noteworthy that each new day provides an opportunity to add another portion of notes to the slip-box. In the academic world, such input is provided by readings, conference talks, and any other scientific meetings. Even a few notes a day contribute to the lush growth of the slip-box. It is vital, however, that subsequent notes are made primarily with our creative process in mind — the key is to determine how they relate to our projects or activities. Above all, keeping a slip-box prevents one from ever facing the problem of a blank page. Ideas are available in the slip-box, just waiting to be developed and elaborated.

3.3. ROBERT BOICE AND PRODUCTIVE WRITING

Let us now focus on the creative process itself, which the slip-box would enable and support (cf. Ahrens 2017: 16). The creative process is the focus of Robert Boice, professor emeritus at the State University of New York, who has conducted research on the factors that foster productive and creative writing. He is the author of the books *Professors as Writers: A Self-Help Guide to Productive Writing* (1990), *How Writers Journey to Comfort and Fluency: A Psychological Adventure* (1994), *Procrastination and Blocking:*

A Novel, Practical Approach (1996), and an organizer of workshops on developing appropriate skills and attitudes. Boice addresses an issue well known to students and more mature researchers alike which is the preparation of a longer text. This process is fraught with pitfalls, including the need to find a topic or inspiration for writing, overcoming creative block, struggling with the inner critic, etc.

Invoking Robert Boice and his research at this point is motivated by a certain similarity I see between his advice and the style of work adopted by Kotarbiński. Kotarbiński, when he wrote *Traktat o dobrej robocie* (translated as *Praxiology: An Introduction to the Science of Efficient Action*), had the habit of writing one page a day — regardless of his occupation or his travels (Grochowska 2004). Considering that he was a member of several societies at the time, this habit seems to be quite remarkable. There is a certain underlying conviction in this approach: small but regular work can bear great fruit in the long run. Similar habits, as we saw in the introduction, characterized Twardowski.

Boice's research on creativity and writing productivity considers factors ranging from issues of work organization to psychological aspects. They translate into a series of recommendations such as: "Pace yourself. Work in brief, regular sessions, 10-50 minutes in length, no more than 3-4 hours a day, 5 days a week. Use a timer to help yourself keep the sessions brief, and take breaks between each"; "Stop when you get to the end of your time limit, preferably in the middle of something (a sentence, paragraph, argument)"; "Make writing a modest, daily priority, something done routinely but not at the expense of living. Take regular breaks and avoid working when you are tired or in large, undisrupted blocks of time"; "Start before you feel ready. Stop before you feel done."

What is key here is moderation, sticking to a set standard and being reluctant to put extra pressure on oneself during the creative process. In some ways, Boice's advice resembles that associated with the training of musicians and athletes, being the subject of performance psychology.

3.4. AGILE METHODOLOGIES IN PROJECT MANAGEMENT

In the article cited above, Kotarbiński noted:

Many of the issues covered in this paper, and above all each of the issues of dealing with chaos — can be classified as problems of organization of our mental work. And

⁵ Paraphrased by Rachel Fulton Brown from (Boice 1994); https://home.uchicago.edu/~rfulton/Tips.htm [access: January 31, 2022].

here a broad perspective opens up: we are confronted with the problems of mental organization, including forms of cooperation. Although we have touched here and there on matters relating to mental cooperation, we have done so only occasionally, in passing. Our aim was to investigate the principles of good work in the field of individual mental work. The great and very lively question of systematizing recommendations for collective, and especially cooperative, intellectual work, an issue of great importance from the point of view of the organization of research institutes, schools, and all intellectual co-operative societies, requires a separate, in-depth consideration, based, among other things, on the existing special literature. (Kotarbiński 2003: 376)

Obviously, when it comes to organizing team mental work, it would be necessary to consider factors related to the group in question: its goal, its needs, the relations between the members of the team, etc. Nevertheless, it is possible to identify some general management methods which have recently been adopted in academia.

One of these concepts is the so-called agile methodologies in management. They comprise several different approaches, such as Scrum, Kanban, and Lean. Here, I will not discuss the individual systems and focus instead on their general assumptions and some of their key aspects. Originally used in IT, agile methods promote several management techniques. Firstly, work is done iteratively and incrementally. IT professionals work in short periods for which a goal and the conditions for accomplishing it have been formulated. Each of such intervals, called a sprint and lasting from 2 to 4 weeks, has a certain repetitive structure related to the planning and settlement of tasks and ends with the presentation of the next version of the developed software and its functionalities. Secondly, there is an established rhythm of meetings: in addition to the meetings marking the beginning and end of a given period, more frequent meetings are introduced, e.g., daily meetings, which are generally very short, e.g., fifteen minutes long, and are aimed at discussing what has been done, what will be done, and potentially what help is needed by team members. Thirdly, teams constantly track the progress of their work by maintaining a sort of scoreboard recording relevant metrics, e.g., time dedicated to a particular task.

In his book *The World Without Email*, Newport provides examples of how this method can be used in academia. One such example is the collaboration between a supervisor and PhD students. In this case, the idea of agile management can involve adopting regular, very short meetings to discuss what the PhD students have done since the last meeting to achieve the mid-term goal, what they are going to do, and what difficulties they are experiencing. These meetings are inspired by scrum stand-up meetings for which lecturers and students adopted the name "status meeting" (Newport 2021: 264).

The second example that illustrates how agile methodologies are used in the university, provided by Newport, relates to the execution of his administration duties (he is a director of graduate studies). Newport employs a task board system that allows him to figure out what he should do with any time put aside for his duties. For the people contacting Newport, the system is invisible, but it can streamline his work. Even two elements of agile methods: 1. visualizing the volume of work waiting to be done, and 2. limiting the number of items that are dealt with at any given time, can form the basis of a very efficient system for organizing one's work (Newport 2021: 215, 218, cf. Benson, De Maria Barry 2011).

CONCLUSIONS

The goal of the present paper was threefold. First, to present the stoic inspirations for the value of good work in the LWS. Second, to describe good mental work as an element of the program of pragmatic logic. Third, to identify contemporary conceptions that are consistent with the program of pragmatic logic and constitute a development of the conceptions put forward and promoted in the LWS.

Can the techniques of mental work find a place within the field of logic? Yes, they can, if logic is understood in a broad sense — that is as pragmatic logic. Of course, it is difficult to imagine fitting all these issues into the syllabus of a single logic course. Perhaps it would be preferable to split them between various subjects such as information technology, academic writing, academic skills, and epistemology — that is, a range of auxiliary courses. Content to be covered in such classes would include, among others, the issues of habit formation, productive reading and writing, note-taking, use of essential tools and software, work in focus, and so on.

Interestingly, we find many similar motifs in Twardowski's lectures in psychology. In his *Wstęp do psychologii* [Introduction to Psychology], he cites many studies and examples taken from Hugo Münsterberg's *Grundzüge der Psychotechnik* and Frederick Taylor's *The Principles of Scientific Management* (Twardowski 1929: 85 et seq., 117 et seq., 131-165).⁶ Although Twardowski did not consider issues concerning psychotechnics and the efficiency of work as part of logic (cf. Twardowski 1920: 178), they were assigned to the field of logic by his disciples (e.g., Ajdukiewicz, Kotarbiński, and Czeżowski). In my

 $^{^6}$ I would like to thank Prof. Aleksandra Horecka for her valuable suggestions regarding Twardowski's interest in psychotechnics presented in his lectures.

opinion, the incorporation of issues concerning productive mental work in the logic program is the best demonstration of how much of a pragmatic approach to logic was provided by Ajdukiewicz, Czeżowski, and Kotarbiński.

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