Standards developed by the Committee on Psychological Sciences of the Polish Academy of Sciences for habilitation theses based on a series of thematically linked scientific articles

Developed by members of the Committee on Psychological Sciences of the Polish Academy of Sciences (PAN):

- Jerzy Marian Brzeziński coordinator, Adam Mickiewicz University
- Michał Bilewicz University of Warsaw
- Jan Cieciuch- Cardinal Stefan Wyszyński University in Warsaw
- Michał Harciarek- University of Gdańsk
- Maria Lewicka- Nicolaus Copernicus University
- Paweł Ostaszewski SWPS University of Social Sciences and Humanities
- Piotr Oleś John Paul II Catholic University of Lublin
- Grzegorz Sędek SWPS University of Social Sciences and Humanities
- Michał Wierzchoń Jagiellonian University

LEGAL BASIS

Legal regulations concerning the standards for habilitation theses are available at: STANDARDY_KP_PAN_habilitacja_jako_cykl_artykułów_czerwiec_2021.pdf

GENERAL REMARKS

The Scientific Excellence Council has expressed the following opinion on the provisions of Article 229, section 1, point 2b of the Law on Higher Education and Science: "collection of thematically linked scientific articles published in scientific journals [...] which, in the year when the manuscript was published in its final form, were included on the list of scientific journals of the Ministry of Higher Education and Science pursuant to the provisions of Article 267, section 1, point 6b".

It should be assumed that in terms of scientific value, a collection of thematically linked scientific articles should be equivalent to a habilitation thesis in its existing sense. A collection of scientific papers constitutes a thematically linked series when it proposes an original solution to a research problem and makes a significant contribution to the existing body of **knowledge in a given scientific discipline**. The above implies that the establishment of thematic links between the articles presented by a habilitation candidate should not come down to the deductive work done by a reviewer. In principle, a collection of scientific papers is developed to pursue a specific objective, and similarly to a doctoral dissertation or a habilitation thesis (as previously defined), a collection of thematically linked articles should present information and knowledge that is valid on the day the habilitation proceedings are started. The fact that the collected articles are "thematically linked" should be evidenced by the candidate, e.g. in a summary of his/her research accomplishments. The extent to which a habilitation thesis contributes to the existing body of knowledge should be assessed based on the day the habilitation request is submitted rather than the period during which the main part of the thesis or the articles that constitute a thematically linked series have been developed. This view is promulgated by the existing doctrine, and it is supported by the Scientific Excellence Council.

Therefore, for a habilitation request to be approved, the candidate should demonstrate that his/her scientific achievements have significantly contributed to the development of a given discipline. These achievements can be a part of a collective research project if a given task has been performed independently by the habilitation candidate and constitutes his/her contribution to the project. If an article or a project has multiple authors, the candidate's contribution should be clearly described to determine whether his/her achievements have significantly contributed to the development of a scientific discipline. An article or a project with multiple authors can be used by all authors to advance their scientific careers. It should be emphasized that a candidate's scientific accomplishments should make a significant contribution to the development of a given discipline. Although the phrase "significant contribution" has not been clearly defined, accomplishments which have received negative or dubious reviews, but are nevertheless recommended for habilitation proceedings, should be considered with caution.

STANDARDS

1. GENERAL ASSUMPTIONS

The *Standards* of the Committee on Psychological Sciences of the Polish Academy of Sciences (PAN) are a set of recommendations for promoting good scientific practice that are addressed to: (a) habilitation candidates, (b) psychology discipline councils, and (c) reviewers. These recommendations include **substantive and formal requirements** that are imposed on a candidate's "scientific accomplishments" that constitute a basis for awarding the degree of doctor habilitated, defined (in a "technical" sense) as a "collection of thematically linked scientific articles that have been published in scientific journals or peer-reviewed international conference proceedings". According to the Law on Higher Education and Science, a habilitation candidate's scientific accomplishments **should significantly contribute to the development of a specific discipline, in this case psychology**. We will try to analyze this rather general statement.

There are two degrees in the Polish academic promotion system: a doctoral degree and a habilitation (post-doctoral) degree. Habilitation is a "higher" academic degree that attests to a scientist's ability to conduct fully independent research and opens new avenues for research and academic work. Habilitation degree holders can supervise doctoral students and, consequently, lay the ground for their own school of scientific thought. They can also issue opinions on doctoral dissertations and participate in habilitation committees (as reviewers, members, chairpersons or secretaries). A habilitation degree creates new opportunities for influencing other scientists' academic careers. Therefore, this prestigious degree should be awarded only to researchers who meet the highest standards of scientific excellence and ethical conduct. Habilitation candidates should be able to conduct research independently and make independent decisions regarding the research process, in particular in the context of managing research teams. Both types of independence promote scientific mobility and enable scientists to acquire new experience by working with various research teams, initially with the assistance of doctoral supervisors, followed by post-doctoral supervisors, and eventually to undertake independent projects in collaboration with other independent researchers. The acquired experiences enable scientists to focus on a specific area of interest and recruit younger colleagues and doctoral students for such projects.

Above all, a habilitation degree attests to the holder's high scientific competences. Today, in the 21st century, when the distinction between domestic and international psychological research has been long abolished, and access to international journals is no longer restricted for political or economic reasons (only several decades ago, very few young Polish scientists were able to publish papers in foreign journals), which is why habilitation candidates should be able to meet relatively strict criteria. A candidate's scientific accomplishments should contribute to progress in psychology as a science rather than as a profession, both in Poland and abroad. These criteria should significantly exceed the recommendations formulated by members of the Committee on Psychological Sciences of the Polish Academy of Sciences for doctoral dissertations. The proposed quantitative metrics (such as the citation score in Google Scholar or the h-index) for a collection of scientific articles submitted by a habilitation candidate should be only the first step in the process of evaluating the candidate's accomplishments, and the assessment should be based primarily on qualitative factors (peer review). Applicants whose scientific accomplishments are unlikely to attract the interest of an international audience can be screened out by recommending habilitation requests based on a minimum number of papers that have been published in reputable academic journals (aggregated in top academic research databases).

These criteria should enable habilitation candidates to critically evaluate their work for originality, cohesion and importance in the process of applying for a habilitation degree and assuming the role of a mentor for young academics. A collection of scientific articles submitted for evaluation (which should be thematically linked) should not consist solely of manuscripts that are merely contributory and lack originality, and where the candidate's contribution is difficult to determine. As regards papers with multiple authors, the candidate should demonstrate his/her actual and scientifically valuable contribution to collaborative projects and ability to work with various research teams. The candidate should be well versed in research methodology. In contemporary psychological research, a scientist makes a valid contribution to the development of the discipline only if his/her work is available to an international audience. However, a candidate's accomplishments cannot be reduced only to the number of articles in a thematically linked series. A habilitation candidate should be also evaluated based on other competencies and skills (the Polish habilitation system is evolving in the direction of the French model, where the main purpose of a habilitation degree is to supervise doctoral students), including his/her ability to advance the professional development of young scientists by acting as an auxiliary supervisor in doctoral proceedings, by contributing to scientific papers, managing research teams and grant applications, or reviewing scientific articles.

Above all, the formulated recommendations should encourage habilitation candidates to reflect on their ability to conduct independent research, a skill that is vital for the further advancement of psychology (to prevent "academic inbreeding"). The proposed *Standards* also create post-doctoral job opportunities for candidates who are able to conduct research independently of their supervisors, gain valuable work experience in other research centers, and find their own field of interest. **Habilitation candidates are strongly encouraged to present the results of their original and independent research**. The proposed *Standards* indicate which factors should be considered by scientific discipline councils and habilitation committees in the process of evaluating a candidate's independent research. We have also formulated recommendations for reviewers who assess a candidate's main scientific accomplishments and other achievements.

In our opinion, the proposed *Standards* and recommendations promote good research practice. The summary of research accomplishments should document the candidate's commitment to the values of openness and transparency in science (open methodology, open resources, open data, open access, open reviews, open educational resources). Habilitation candidates should also refrain from publishing their articles in predatory journals. **Last but not last, these recommendations do not modify or amend the existing legal regulations.**

2. Detailed criteria

Summary of research accomplishments

A summary of research accomplishments (that does not have to be published previously) should be attached to a "collection of thematically linked articles published in scientific journals or peer-reviewed international conference proceedings". The summary should present the theoretical framework for the research discussed in scientific articles that constitute the candidate's research accomplishments, as well as other scientific achievements with a discussion of the results in the context of the adopted theoretical framework. In other words, **the summary of research accomplishments should synthesize the results of research presented in the submitted collection of scientific papers**. Above all, the articles included in the collection should be thematically linked. This fundamental requirement has been emphasized in the *Guide Book* published by the Scientific Excellence Council on 20 May 2021: the fact that the collected articles are "thematically linked" should be evidenced by the candidate in a summary of his/her research accomplishments

What types of articles (and how many articles) should be included in a collection?

The articles that make up a thematically linked series should make a "significant contribution" to the development of psychology. Therefore, the number of articles is less important than their novelty and methodological robustness. These *Standards* place special emphasis on an evaluation (peer review) of a habilitation candidate's scientific accomplishments by competent reviewers. **Online First** articles with a DOI number are **regarded as published articles**.

Papers published in reputable academic journals that are indexed in top academic research databases usually give some guarantee for scientific quality. **Journal Citation Reports** is one of such databases that provides information about the majority of prestigious psychology journals in the world. The number of manuscripts that should be included in the collection of scientific articles should also be defined. **The proposed** *Standards* **recommend a minimum number of articles** because we do not want to impose any limitations on candidates who would like to submit a higher than minimum number of papers published in scientific journals or peer-reviewed international conference proceedings (to improve the scientific merit of the submitted work, rather than to increase their competitive advantage). The quality of the submitted collection plays the key role in the process of awarding the degree of doctor habilitated. The collection of scientific articles should contain a **minimum of 5 papers that have been published in JCR-indexed journals** listed by the Ministry of Higher Education and Science.

Collaborative authorship of thematically linked scientific articles

In the modern world, empirical research (especially research undertaken in advanced laboratories) is conducted by teams, and papers that are published in prestigious scientific journals have multiple authors. These *Standards* have been developed on the assumption that habilitation candidates, in particular candidates who work with other researchers (including foreign researchers), have had an experience with collaborative authorship. Therefore, even all of the articles submitted by a habilitation candidate may have multiple authors. However, the candidate's contribution to the research project and the writing of the manuscript must be clearly indicated. The *Guide Book* of the Scientific Excellence Council states that an author's contribution to a collaborative research article must be clearly indicated in the process of evaluating his/her research achievements that make a significant contribution to the development of a given scientific discipline. We recommend that the **habilitation candidate is listed as the first or the corresponding author** in 4 (out of 5) articles. However, some papers have shared first authorship, or the authors are listed in alphabetical order. It is recommended that foreign researchers (or at least researchers from different domestic research institutions) are included in the list of authors to suggest that in addition to research placements (or at least study visits), the candidate has acquired his/her experience not only in the university where he/she is employed, but also in other research centers. The candidate's contribution to a collaborative article should be described in detail and confirmed by co-authors (in writing). The candidate's contribution to a collaborative article should be described in detail and confirmed by co-authors (in writing). The candidate's contribution for a papers with only one author.

The use of collaborative research articles by other authors

The co-authors of the papers included in a habilitation candidate's collection of scientific articles should be able to use these manuscripts to advance their professional careers (doctoral dissertations, habilitation theses).

Time window for the collection of thematically linked scientific articles submitted by a habilitation candidate

The recommended time window for the collection of scientific articles submitted by a habilitation candidate is **10 years**.

Role of reviewers in the evaluation of a collection of thematically linked scientific articles Reviewers are responsible for evaluating the scientific value of the articles submitted by a habilitation candidate and their contribution to the development of psychology. Competent reviewers who are able to write perceptive, pertinent and objective reviews should be selected.

The generated reviews have to be approved by the dean, chairperson of the psychology discipline council or the director of a research institution. Reviews are evaluated for their depth, consistency and pertinence of the formulated conclusions. In the proposed *Standards*, guidelines for reviewers are presented in **Annex A**.

Conflict of interest

The articles published by a habilitation candidate may not be co-authored by prospective reviewers.

The full version of the document with annexes is available here: STANDARDY_KP_PAN_habilitacja_jako_cykl_artykułów_czerwiec_2021.pdf