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Rethinking Mindfulness in Education within Two Frameworks: Articulating the “Threefold Model of Mindful Wisdom” with the “Theory of Mental Interference”

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Abstract: The existent trend of implementing mindfulness-based programs (MBPs) into public education came along with an increasing scientific record regarding the definitional construct of mindfulness, effects of various mindfulness-based interventions and their basic mechanisms. In terms of the rising definitional discourse in the interdisciplinary field of mindfulness, the “threefold model of mindful wisdom” (TMMW) was proposed. In the present paper’s quest of rethinking mindfulness in education, the relevance of the TMMW for didactics in modern Western educational systems (with special interest on the region of Germany) is examined, affirmed in several points and—with the aid of the “Theory of Mental Interference” (TMI)—methodically linked to individual learners’ needs. The TMI has been developed at the University of Hamburg since 1984 by Wagner and colleagues. This is compatible with the TMMW with regard to the concept of self and basic psychological mechanisms of “mindful exercises”. Its basic approach conceives the epistemic level of cognitive processes (1) to be unbiased by affect and (2) to be different from a level of mental interference, which in case of an arising default habitually interferes with the cognitive processes. Implications for further research, for modern educational systems and for MBPs in education are discussed.



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1. Introduction

Educational systems no longer aim only at general educational knowledge and administrative skills that enable graduates to become functioning members in a postindustrial society. Modern educational systems¹ aim at developing interdisciplinary competencies that generate solution-oriented behavior in social and environmental realms (e.g., [UNESCO 2013](#); [European Parliament and Council 2018](#)). This can be formulated as a call for an education that cognitively and psychoeducationally prepares future generations to cope with growing global crises like climate change, resource scarcity, migration flows and societal inequalities.

One popular revolutionary movement in the global modern educational landscape is the mindfulness movement, which also pervades other areas, e.g., health, business or military ([McMahan 2008](#); [Brown et al. 2015b](#); [Purser et al. 2016](#); [Jha et al. 2015](#)). The exponentially growing trend to implement Mindfulness-Based Programs (MBPs) into various contexts evoked a critical discourse that sought to differentiate and to classify the definitions that underly the construct of mindfulness presupposed by these programs (e.g., [Sternberg 2000](#); [Dorjee 2010](#); [Williams and Kabat-Zinn 2013](#); [Brown et al. 2015a](#); [Crane et al. 2017](#); [Feldman and Kuyken 2019](#)). At the same time, there are influential attempts to find a unitary definition of mindfulness that can claim a broad acceptance among practitioners and researchers alike ([Kabat-Zinn 1994](#); [Bishop et al. 2004](#); [Lutz et al. 2008](#)). Critical voices question the overall emphasis on the present moment and the non-judgmental attitude

(e.g., [Dreyfus 2013](#)²; [Deroche 2021](#)) in these operational definitions that were initially elaborated in a clinical context. Other scholars cautioned against the abandonment of the traditional Buddhist context to constitute a secular interpretation of historically religious meditation practices ([Kuan 2008](#); [Bodhi 2013](#); [Gethin 2015](#); [Sharf 2015](#); [Walsh 2016](#); [Brown 2017](#); [Anālayo 2019](#)).

For MBPs introduced in educational contexts, however, it seems indispensable to describe the construct of mindfulness in a transparent way that points out its Buddhist origins and, at the same time, explicitly includes the cognitive aspects that are relevant in learning processes (e.g., regarding memory and judgements). Therefore, this paper advocates the newly contextualized model of mindfulness inherent in the recently proposed “Threefold model of mindful wisdom” (TMMW) (according to [Deroche 2021](#)). The TMMW is based on Buddhist wisdom traditions³, however it rearticulates these in an integrated and dynamic way with a view on “the recognition of self-awareness and the integration of personality” ([Deroche 2021](#), p. 26). Here, the construct of mindfulness is attributed with a didactical function as a “core element and thread” ([Deroche 2021](#), p. 30), linking the three levels of mindful wisdom.

Another point of criticism needs to be considered here: many MBPs employed in schools largely function as black boxes as research has been focused primarily on the programs’ effectiveness ([Roeser 2016](#)). Little attempt has been made to discuss the didactical relevance and methodological propriety of either the underlying definition or the curriculum of the respective MBP concerning the application in schools (*ibid.*). Given the increasing presence of mindfulness in modern educational systems (cf. [Zenner et al. 2014](#); [Schonert-Reichl and Roeser 2016](#); [Ditrich et al. 2017](#); [Ergas and Hadar 2019](#)), it is necessary to take a closer look at the conceptional compatibility of the educational goals and the underlying conception of self in both, the respective MBPs and the modern educational systems in which they are implemented.

A look at the TMMW as a didactical framework for mindfulness provides the starting point for the following examination of its relevance for modern educational systems. In pointing out the historical emergence of three significant psychological concepts relevant for education (the concept of childhood, the concept of individuality and concepts of cognitive and socio-emotional development), it will be shown that the TMMW has a recognizable rapport with modern educational terms that recently tend to be classified in an analogue trichotomy: i.e., “knowledge”, “skills”, and “attitudes” ([CMEC 1997](#); [European Parliament and Council 2006](#); [UNESCO 2013](#); [United Nations 2015](#)). Since international guidelines and recommendations for curricular development have no legal force for actual pedagogical practice in modern educational systems in most Western countries, the TMMW will be compared with an interdisciplinary didactical framework from Germany: the “Requirement Areas I–III” (RA) ([KMK 2005b](#)). The RA I–III have a remarkable conceptual overlap with the TMMW regarding their trichonomic didactical structure. The differences regarding their didactical function and their context of application and pedagogy will lead to the conclusion that (thinking of an in-class implementation) an alternative psychological framework is necessary to mediate between them.

The “Theory of mental interference” (TMI) (according to [Wagner \[2007\] 2021](#)) will be proposed as such a mediating framework. The TMI is a general psychological framework that explains the origins of mental conflicts on a cognitive level within sensory processing ([Wagner \[2007\] 2021](#)). It will be shown that the TMI and the TMMW are compatible regarding the concept of a self and the basic mechanism of how mindfulness works. In terms of the examination of the TMMW’s relevance for modern educational systems, the TMI can methodologically and theoretically support the demonstration of how mindfulness can help at all three levels of knowledge and competencies. Accordingly, an integrated model of the TMMW and the TMI will serve to elucidate: (a) the advantages of promoting the cognitive faculty of “attention” as an equitable element alongside the cognitive faculties of “memory” and “judgment” within an educational process; (b) the potential of integrating the practice of self-awareness into each stage of such educational process; and (c) the new

perspectives for demand-actuated support of learners' needs in the context of public education or in the context of an MBP.

2. Pedagogical Relevance of the “Threefold Model of Mindful Wisdom” for Modern Educational Systems

Following Benner's categories devised for pedagogical research on modern educational systems (Benner 2002), the implicit relation between didactics, curricular development, achievement evaluation and methodology need to be taken into account. The first three elements (didactics, curricular development, and achievement evaluation) depend on various external factors related to society and the political system and have undergone different developmental stages over time. On that note, the historical emergence of today's conception of self and educational goals in modern educational systems shall be considered first and made accessible for the following examination of the didactical relevance and the methodological fit of the “Threefold Model of Mindful Wisdom” within modern education.

2.1. Conception of Self and Educational Goals in Western Educational Systems

While educational goals were defined prevalently by religious or political leaders during ancient and medieval times, pedagogical expertise and practice became increasingly independent from religion and politics with the advent of humanistic ideas (Lawton and Gordon 2002). Humanists' (re)discovery of the Classics (i.e., Greek philosophy etc.), led to the occurrence of pedagogical concepts that were philosophically better informed and sensitive. Hence the “transition from the Age of Faith to the Age of Reason” that marks the Renaissance began (Lawton and Gordon 2002, p. 57). The assumption that human beings possess individuality (that is, above all, unique character and a free will) and, with the onset of the Enlightenment, the growing significance assigned to reason and critical thinking paved the way for (1) the recognition of the individual and (2) for the integration of the individual in its (so far externally assessed) socio-emotional and cognitive development into pedagogical concepts (Lawton and Gordon 2002; Zirfas 2018). Several thinkers developed their concepts between the 18th and 20th centuries and exhibited a sustained influence on present-day pedagogy. These are, for example, Jean J. Rousseau, who recognized the significance of childhood; Jean Piaget, who proposed the step model of cognitive and ethic development; Lawrence Kohlberg, who formulated a theory of stages of ethic development; and Erik H. Erikson, who introduced a progressive model of psychosocial development and identity (Lawton and Gordon 2002; Berk [1998] 2018). These developmental-psychological models of identity, cognition, and ethics lend themselves to an analysis in terms of the framework of the TMMW (see Deroche 2021), which will, however, exceed the limitations of the current paper. What is relevant here is that the ultimate stage of identity development in these concepts addresses a relatively constant psychological identity, a sense of self in terms of personal continuity and “more adaptive, less conflicted rearrangements of impulse and defence” (cf. Engler 1984, p. 52). This sense of self forms the basis for the humanistic value of self-realization (that is often recognized as a core idea of Western pedagogics) and contradicts the Buddhist spiritual ideal of reaching the state of “no-self”, i.e., the realization of the discontinuity of object relations (Engler 1984; Ryan and Rigby 2015). Engler (1984) addressed this question of self or no-self and introduced the “full-spectrum model of object relations development” that includes various states of self and no-self instead. According to Engler (1984), Western psychological models address the earlier stages of personality organization, whereas Buddhist psychology, on the other hand, addresses the other end of the developmental spectrum at which one can reach a “more ultimate view of the self and reality” (Engler 1984, p. 52). Such a state can also be recognized in Western psychological theories (e.g., the gerotranscendence theory, which can be understood as “a cosmic and transcendent perspective directed beyond the self to affinity with past and future generations and oneness with the universe”, Berk [1998] 2018, p. 611) although only within the context of the advanced age of life and the awareness of the limitations of one's own existence. According to Engler (1984, pp. 51–52), in order

to ensure healthy development, the sense of self needs to be established first before one can attempt to annihilate the ego and to achieve a universal perspective of self-realization (cf. [Deroche 2021](#)).⁴

With the cognitive revolution in psychology around 1970 and the advancement in the cognitive sciences, the student's self-image ([Bandura 1977](#)) and differences in individual perspectives ([Lazarus and Folkman 1984](#)) came into the focus of educational science and the pedagogical discourses held therein. Against the backdrop of post-colonial and post-modern developments, and in view of the emergent discourse on equal opportunities in education, the belief in the existence of absolute values has been weakened ([Lawton and Gordon 2002](#)). At the end of the 20th century, this weakening caused, among other things, rising pressure on the "United Nations Educational, Social and Cultural Organisation" (UNESCO), which was founded after World War II to promote educational concepts and teacher training for peace and democracy, "to be less dominated by Western European cultures and education models" ([Lawton and Gordon 2002](#), p. 187). Around the same time, an essential conceptual change in Western educational systems became apparent. This consisted of a movement away from input-orientation, with the focus on a knowledge-based curriculum, towards output-orientation focused on comparable performance control while extending the possibilities for individual learning approaches ([Zuber et al. 2019](#)). Following the prevalent Zeitgeist, the "Organisation for Economic Co-operation and Development" (OECD), which was established in 1961 to promote sustainable economic growth and living standards on an international level, initiated the "Programme for International Student Assessment" (PISA). PISA's goal was to assess the extent to which 15 year old students, close to the end of their compulsory education, have acquired knowledge and skills essential for full participation in modern societies ([OECD 2019a](#)). With PISA, the OECD pursues an approach that prioritizes students' educational experience and pays less attention to the specific cultural context of a particular country ([Tröhler 2019](#)).

So-called output orientation resulted in a fundamental change in didactics, curricular development and achievement evaluation. This change can be considered to constitute the second major transition within the history of Western educational ideas. Given that this transformation has started relatively recently and has not been completed yet, it cannot be delineated with any certainty. Following [Lawton and Gordon \(2002\)](#)⁵, it could be described as a transition from the Age of Reason to the Age of Attitudes. The idea of mere knowledge accumulation has come to its limits in times when a major body of knowledge is instantly available online. Similarly, education cannot accentuate a mere accumulation of skills and use of technologies when humanity faces global crises of climate change, resource scarcity, migration flows and growing social disparities. Nevertheless, it presently seems difficult to illiberally decree a canon of universal values or a universal code of conduct. Educational ideas have to address the future generations, provide knowledge about the extent of global crises and the skills to either impel or prevent those. This transition can be seen in close connection with the output-orientation of modern educational systems: when the focus shifts from the curricular content towards the application of acquired knowledge and skills, the attitude of performance becomes an inevitable influential variable. However, the perception of attitudes as an essential element of education is not new to Western educational ideas. The workgroup [Bloom et al. \(1956\)](#) had defined three domains to be included in a complete taxonomy of educational objectives: the cognitive, the affective and the psychomotor domain. [Bloom et al. \(1956\)](#) concentrated on classifying the cognitive domain as cognitive objectives were the easiest to access rationally at that time ([Bloom et al. 1956](#)). The affective domain was classified further a little later in [Krathwohl et al. \(1964\)](#). Here, the hierarchical taxonomy covers an ascending range of affective concerns from mere awareness to an embodied and internalized value complex that has been conceptualized and organized previously⁶. In this way, the taxonomy by [Krathwohl et al. \(1964\)](#) is conceptualized to measure "changes in interest, attitudes, and values, and the development of appreciations and adequate adjustment" ([Bloom et al. 1956](#), p. 7).

The transition towards an Age of Attitudes is further reflected by recent attempts to constitute international educational standards, showing a trend in a common tripartite categorization of interdisciplinary didactics: “knowledge, skills and attitudes” (see Appendix A).

2.1.1. Didactical Guidelines and Achievement Evaluation in Modern German Education

As a direct result of the first PISA study in 2000, which attested to unexpectedly low academic achievements of German students, the German government commenced an attempt to develop nationwide educational standards and competency step models with legal force to enable the measurable improvement of students’ learning outcomes (Klieme et al. [2004] 2007). The authority in charge of the legislative proposals was the school committee for primary and secondary education of the “Kultusministerkonferenz”⁷ (KMK). In 2004, the KMK founded the “Institut für Qualitätsentwicklung im Bildungswesen”⁸ (IQB) at the Humboldt-Universität Berlin, which since then has been in charge of the conceptual development and scientific evaluation of subject-specific and age-appropriate educational standards and competency levels. The concisely formulated competency levels serve as the basis for constructing tasks varying in difficulty and for improving the transparency of requirements and the evaluation of learning outcomes (Klieme et al. [2004] 2007).

Thinking about education, starting from achievement evaluation and defining national educational standards as an orientation for territorial curricular development and didactical conceptualization (like the first attempts made in Canada, see CMEC (1997)) was, metaphorically speaking, like putting the cart before the horse. In a more conventional scenario, educational goals were set as the primary point of departure that needed to be defined within curricular development, which included, among other things, methodological adjustments, task conceptualization and teaching implementation. In view of these, the achievement evaluation remained a matter of mere certification and feedback. However, the educational reform demands that the conceptualization of achievement evaluation should go hand in hand with the construction of educational goals in terms of competencies. The newly established competency models mediate between educational goals, the subject-specific curriculum and the concrete task development in the day-to-day pedagogical practice. In this way, competency models supplement the curricular development, which is now almost entirely focused on the process-accompanying monitoring of academic achievements and on the final assessments (Klieme et al. [2004] 2007; Zuber et al. 2019). This education reform brings some advantages, like, for example, enhanced transparency in achievement expectations and a shift of emphasis towards promoting argumentation and presentation skills in students. However, it has already been shown to have a negative influence on teachers (e.g., deprofessionalization caused by a reduced scope for pedagogical action) and students (e.g., via increased competitive pressure), which demonstrate the difficulties that this reformative process has to overcome and why it still requires more time before it can be evaluated (Zuber et al. 2019). To this day, in Germany, the centralized development of educational standards and competency models with legal force has focused mainly on the core subjects (languages, mathematics and sciences) at the levels of the different school qualifications (after fourth, ninth, tenth and twelfth/thirteenth grade). Therefore, the goal of providing educational standards and competency models for each subject and every grade in primary and secondary education remains to be attained in the distant future. During the interim phase, the “requirement areas I–III” (which are relatively consistent over the range of different subjects) are in force to provide a nationwide and interdisciplinary didactical guideline for task conception and achievement evaluation (KMK 2005b).

The “requirement areas I–III” (RA I–III) (in German: “Anforderungsbereiche I–III”) combine both old and new educational conceptions. On the one hand, they result from pooled teachers’ experience of day-to-day pedagogical practice (as opposed to empirically validated testing methods, see KMK (2005b))⁹. On the other hand, they are conceptualized

with reference to the “competencies”, defined by Weinert ([2001] 2014) as: “cognitive abilities and skills possessed by or able to be learned by individuals that enable them to solve particular problems, as well as the motivational, volitional and social readiness and capacity to utilise the solutions successfully and responsibly in variable situations”¹⁰. Therefore, they can be executed dynamically within one task. Despite the dynamic conceptualization, these competencies help determine a task’s level of difficulty and complexity and allow an estimation of the adequacy of task performance requirements (KMK 2005b). Furthermore, the RA I–III are constructed inclusively: the second area includes the first one, and the third, in its turn, includes the second and the first area. Therefore, the rating value of the respective task achievement is ascending from areas I to III. However, this does not mean that students are free to concentrate on the third area to achieve the highest possible rating. The horizon of expectations has its main focus on task requirements from area II. The accentuation of the second focus in the senior school classes on either area I or III depends on the course’s curriculum level that can be either basic or advanced. For the exam in a course from the basic curriculum, the range of expectations includes mainly task requirements from areas II and I; in a course from the advanced curriculum, the task requirements derive primarily from areas II and III (KMK 2005b). This demonstrates how the German educational system leans towards average learning outcomes.

Although the RA I–III were meant to play only a provisional role in educational reform (KMK 2005b) and were initially defined subject-specifically¹¹, they are presently found in the latest directives in terms of educational standards by the IQB for the “Abiturprüfung” (the general higher education entrance qualification) in a number of subjects: German, mathematics, and continued second languages, such as English and French (with documents issued in 2012) as well as biology, chemistry and physics (added in 2020). In these fields, the requirement areas are found as general interdisciplinary categories of the exam, and for some subjects (e.g., KMK 2012), they are formulated as an orientation for subject-specifically formulated competency levels. For other subjects taught in senior school grades, where the educational standards are not yet issued, the formulation of the RA I–III is subject-specific and includes examples for the construction of tasks in respective fields. However, the basic tripartite structure (as found in the interdisciplinary version in Table 1 and OECD (1999) or Blömeke (2013)) is similar: “basic knowledge and work techniques”, “application/analyzation” and “evaluation/creation” (e.g., KMK (2005a) for the subject Geography, KMK (2006) for the subject “school theatre”). Therefore, the interdisciplinary formulation (see Table 1 in Section 2.1.2) can be seen as a representative example for the RA I–III as they are used for task construction and achievement evaluation in the modern German educational system and will serve for further examination of the didactical relevance of the TMMW according to Deroche (2021).

Table 1. Comparative overview of the interdisciplinary “requirement areas I–III” (according to, e.g., [KMK \(2012\)](#)) and the “Threefold model of mindful wisdom” (according to [Deroche \(2021\)](#), summarized).

Requirement Areas I–III (e.g., KMK 2012)	Threefold Model of Mindful Wisdom (Deroche 2021)
Requirement area I: reproduction of facts and knowledge in the context in which they were learned; understanding as well as application and description of studied techniques and processes. * (1, ABC)	Level 1: study of something by tradition and teachings using memory and keeping such vital information “Present in mind”. * (1, ABCD)
Requirement area II: independent selection, arrangement, processing, explanation and presentation of known facts from a given point of view in a context known through practice, independent transfer and application of what has been learned to comparable new contexts and facts. * (234, ABCD)	Level 2: reflection of something learned by logical thinking and self-reflection using mindful judgments to formulate adequate “Re-Present-ations”. * (2345, ABCD)
Requirement area III: processing of complex facts with the aim of arriving at independent solutions, designs or interpretations, conclusions, generalizations, justifications and evaluations. Students choose suitable methods and procedures independently to cope with the task, apply them to a new problem and reflect on their own approach. * (56, ABCD)	Level 3: cultivation of something learned by intuition/direct experience using attention and exercising “Presentification” or “Presence of mind”. * (6, ABCD)

* Classification according to the “taxonomy of educational objectives” by [Anderson and Krathwohl \(2001\)](#).

2.1.2. Comparison of the “Requirement Areas I–III” and the “Threefold Model of Mindful Wisdom”

Table 1 presents a comparative overview of the interdisciplinary RA I–III in the senior grades (e.g., [KMK 2012](#)) and the TMMW ([Deroche 2021](#)) that introduces, among other things, a division of each three levels into four partial aspects. According to [Deroche \(2021\)](#), the four major aspects of the TMMW are as follows: (1) three steps of the traditional Buddhist “threefold wisdom model” (“Study”, “Reflection” and “Cultivation”); (2) epistemic sources in the learning process (“Tradition”, “Reason” and “Intuition/Direct Experience”); (3) cognitive faculties that are considered to be essential for each level of “mindful wisdom” (“Memory”, “Judgement” and “Attention”) and; (4) three categories of the construct of “Mindfulness/Presence” (“Present in mind”, “Re-present-ation” and “Presence of mind/‘Presentification’”) that stand for three different levels of self-knowledge, internalized wisdom, synthesis and creativity in the learning process (see Table 1 in [Deroche 2021](#), p. 29).

For the following comparison, the “taxonomy of educational objectives” according to [Anderson and Krathwohl \(2001\)](#) (a revised version of the internationally renowned “Bloom’s taxonomy” ([Bloom et al. 1956](#)) that now includes also the category of metacognitive knowledge) will be used. The framework’s two-dimensional structure provides for the differentiated classification of educational objectives within six categories of cognitive processes (“1. Remember”, “2. Understand”, “3. Apply”, “4. Analyze”, “5. Evaluate”, and “6. Create”) and four categories of knowledge (“A. Factual knowledge”, “B. Conceptual knowledge”, “C. Procedural knowledge”, and “D. Metacognitive knowledge”) ([Anderson and Krathwohl 2001](#)). The classification of the RA I–III and the three levels of the TMMW in accordance with Anderson and Krathwohl’s taxonomy is also noted in the respective cell in Table 1.

In view of the basic structure, it can be noted that both frameworks have a similar tripartite structure and are formulated inclusively and transcendently (each higher area/level includes the lower one(s) and adds something new). Therefore, a single area/level partially includes elements of the preceding area/level.

Within the “requirements”, one can recognize two lines of thought: one line, which concerns the application of work techniques and processes, is drawn through all three areas, another line concerns reflective requirements that only go through areas II and III. Area I requires the application of already “studied techniques and processes”, however area II demands application within an “independent transfer [...] to comparable new contexts and facts”. Area III includes the application of “suitable work techniques and procedures” within an independent transfer to “a new problem”. While area II asks for an “independent selection, arrangement, processing, explanation and presentation of known facts” and “from given points of view”, in area III, “the processing of complex facts” (that are partially new) is to be performed “with the aim of arriving at independent solutions, designs or interpretations, conclusions, generalizations, justifications and evaluations” (that require one forming one’s own point of view). Moreover, the requirement for the students to “reflect on their own approach” in area III includes the independent processing of a self-generated context from one’s point of view.

Within the TMMW, a continuous line that cuts through all three levels can be defined via the construct of “mindfulness/presence” (Deroche 2021) that links spheres in which the student is present via “mindfulness”. On the first level, the “presence” is encountered within the mind, while the senses and the relationship to the teacher/the tradition serve only to channel the information. If they are included in the teachings on this level, judgements are an adoption or an interpretation of the teacher’s/tradition’s view. On the second level, the sphere of “presence” includes the mind (the information process) and further self-knowledge that allows independent reflection on what has been studied and the “possibility of a correction of judgment and the careful formulation of an adequate representation” (Deroche 2021, p. 22) in relation to the particular context. The third level focuses on “the epistemological primacy of direct perception or lived experience” (Deroche 2021, p. 21) in reference to the concept of “Presentification” by the French psychologist Pierre Janet¹². Level 3 is characterized by “the expansion of the pause between perception and action, including the action to judge” (Deroche 2021, p. 25). As a result of the constant actualization of the present-centered mind that focuses on the flow of sensory and epistemic information, judgements can become unbiased by emotions (Deroche 2021).

Classifying the categories of knowledge according to Anderson and Krathwohl (2001) along with the three areas of the RA I–III and the three levels of the TMMW, it is noteworthy that while all four categories of knowledge and all six categories of cognitive processes are covered in both the frameworks (with only one exception, see below), their distribution and prioritization differs. All four categories of knowledge are represented across all areas and levels, except for the first requirement area, which does not include the metacognitive knowledge. Both the first requirement area and the first level of the TMMW refer to the first category of cognitive processes (“1. Remember”). While the second requirement area includes the next three categories of cognitive processes (“2. Understand”, “3. Apply”, and “4. Analyze”), the second level of the TMMW additionally includes the subsequent cognitive process (“5. Evaluate”). Regarding the final area, we can observe that the third requirement area includes the categories “5. Evaluate” and “6. Create”, whereas the TMMW focuses exclusively on the last category of cognitive processes (“6. Create”).

Another significant difference lies in the didactical function. While the RA I–III have been elaborated to estimate performance requirements in curriculum development and task construction as well as to supply transparent guidelines for achievement evaluation (Klieme et al. [2004] 2007), the TMMW has been developed to revise the concept of mindfulness dynamically so that it can support the developmental path toward a “Buddhist integrative wisdom” in modern MBPs (Deroche 2021). In this way, the TMMW is not meant to provide a framework for achievement evaluation.

The most apparent difference in the content-related context of the KMK (2012) and the TMMW is that the former is entirely secular, while the latter has clear religious connections. In view of the actual pedagogical context, it can be stated that both aim at promoting psychological development (that include both cognitive and socio-emotional development,

cf. Berk [1998] 2018). The difference between them can be identified in the orientation within the full developmental spectrum of personality organization (according to Engler 1984). While the requirement areas address earlier stages of personality organization, the TMMW addresses the other end of the developmental spectrum with a main focus on spirituality. The comparison of the respective content of each area/level (which leads to the comparison of the didactical function) reflects that difference, especially in the higher areas/levels.

2.2. Methodological (Practical) Fit for an In-Class Implementation

Regarding the personality formation of school kids during the critical period of their lives, the methodological framework of the TMMW should be adjusted to their respective developmental stage of personality continuity (cf. Engler 1984) and attuned to the psychoeducational approach. Although most popular MBPs do not include any practice that questions the existence of a self (Petranker 2016, p. 96), they also do not provide a psychological framework that is compatible with both, the Buddhist practices and basic Western pedagogical assumptions. The “Theory of mental interference” (TMI) (according to Wagner [2007] 2021) can serve as a secular psychological framework for the construct of mindfulness that is inherent in the TMMW (according to Deroche 2021) while it is compatible with contemporary psychological step models of cognitive and socio-emotional development (cf. Berk [1998] 2018). Originally, the TMI was not developed with a view to describing and guiding a spiritual path rather than with a view regarding the mental blockages of students and teachers in the classroom (Wagner et al. 1984). It serves as a theoretical basis for a technique of mental self-regulation, the so-called “Introvision” (see Appendix B), the practice of which aims at regaining the ease and ability to act in situations of accumulated stress and psychic tension.

2.2.1. The “Theory of Mental Interference” as a Secular Psychological Framework for Mindfulness

The TMI is a general psychological theory that combines approaches from different schools of psychotherapy and that has been developed at the University of Hamburg since 1984 by Wagner and colleagues. This is not to be confused with the psychological “Interference Theory” that deals with cognitive processes in terms of memory retrieval (Underwood 1957). The TMI proposes an explanation for the degree and origin of psychic stress and mental conflicts as well as for the resolution of such conflicts.

Among other things, Wagner ([2007] 2021) postulates a “Psycho tone scale” (see Figure 1) with seven different stages of psychic tension. In relation to this scale, the TMI postulates a correlation between interference into mental processes and psychic stress.¹³ A reduction in interference reduces stress and may result eventually in a state of complete inner peace and the sense of no-self/no-body/no-time (cf. Psycho tone 1 in Figure 1). Although the TMI refers to a psychological state similar to the one aimed at within a spiritual practice, it focuses on the middle stage (Psycho tone 4) that corresponds to the psychic tone on the level of everyday routine. From here, a decreasing psychic tone leads to stage 3, which is characterized by an incipient relaxation. Stage 2 is characterized by the feeling of absorption and flow in the present action. An increasing psychic tone, on the other hand, first leads to stage 5, characterized by recognizable effort of volition and self-mastery. With a further increase in psychic tension, one encounters stages 6 and 7. At these stages, an acute conflict (stage 6) or an escalating acute conflict (stage 7) manifest in the form of a predominant feeling of strong or extreme emotions, respectively. On stage 7, a blackout is also possible (Wagner [2007] 2021).

Having Engler’s “full-spectrum model of object relations development” (Engler 1984) in mind, the “Psycho tone scale” can describe the stages of psychic tension in relation to eventual mental conflicts along the very same spectrum. With a focus on the middle stage the TMI meets the age- and development-actuated needs of school students¹⁴ while being ready to support mental self-regulation towards a lower psycho tone.

In order to explain the origination of mental conflicts from the outset, the TMI postulates that the epistemic level of cognitive processes is: (1) unbiased by affect and; (2) different from the level of mental interference, which—in case of an arising default—habitually interferes with the epistemic system. The process of mental interference is described in four steps that cause the psychic tone to raise (see Figure 2):

Psycho tone scale (according to Wagner)	
7	escalating acute conflict (manifesting in e.g. panic, despair, blackout)
6	acute conflict (manifesting in e.g. anxiety, decision-making dilemma, anger, depression)
5	effort, volition (manifesting in e.g. self-command, impulsivity, self-mastery)
4	daily routine consciousness (manifesting in e.g. wakefulness, deliberate acts without sensible resistance)
3	incipient relaxation (manifesting in e.g. decreasing arousal, lack of active volition processes)
2	absorption, flow experience (manifesting in e.g. oneness, inner clarity, trance)
1	absolute serenity (manifesting in e.g. timelessness, egolessness, emptiness)

Figure 1. Psycho tone scale (stage names and characteristics of manifestation according to Wagner [2007] 2021), translated from German. The seven colors representing the seven stages in the “Psycho tone scale” (see Figure 1) are not included in the original description of the system (cf. Wagner [2007] 2021). They were added by the author to support intuitive understanding of each stage (being aware that such an approach is not fully backed up by scientific evidence).¹⁵

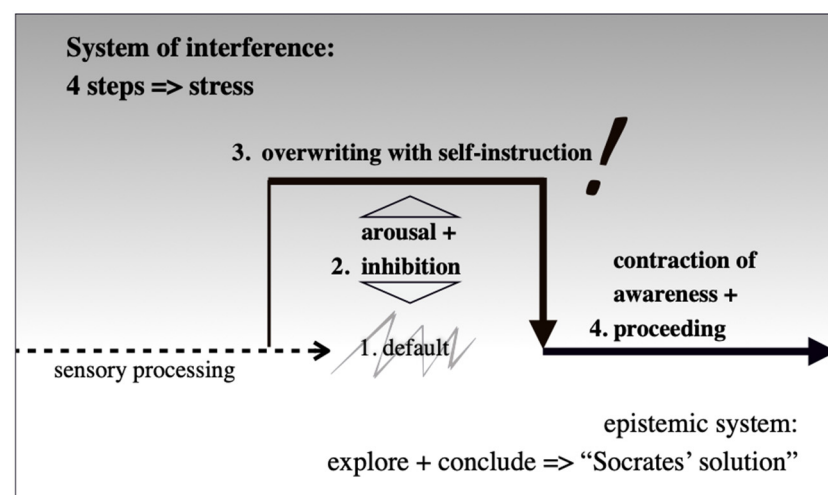


Figure 2. Model of the four steps of mental interference (according to Wagner [2007] 2021), modified graphics according to Klebanova (forthcoming), translated from German.

The TMI categorically distinguishes between the appearance of a default (a contradictory or invalid, an unwanted or overcharging cognition) and the aversive arousal that is being coupled with the default in terms of interference. The coupling between default and arousal defines the mental conflict and represents the first step of mental interference (Wagner [2007] 2021). In steps 2 and 3, in terms of a quick deal with the conflict, the

cognition of the default situation will be inhibited, and a self-instructed imperative will be affirmatively written over the inhibited cognition. Finally, in step 4, the sensory processing can proceed under the condition of increased psychic tension that comes along with a narrowed focus of attention (*ibid.*). This 4-step-process of interference can be executed multiple times if the interference has led to another default. In that way, the TMI serves as the basis for the “Theory of subjective imperatives” (according to Wagner [2007] 2021) that explains the inner structure of mental conflicts (see Appendix B).

As an alternative, an ideal resolution of a default situation without affective interfering can take place within the epistemic sensory processing—the “Epistemic system” (according to Wagner [2007] 2021). In the absence of irritation or frustration, the interrupted sensory processing can proceed once the available solution methods have been explored and considered carefully (Wagner [2007] 2021). Wagner ([2007] 2021) speaks of “Socrates’ solution” by referring to Socrates’ statements regarding the role of prudence for a flawless flow of life: The metacognitive knowledge of what is known and what is not was beneficial—for oneself and for others for whom the same could be realized (Wagner [2007] 2021, pp. 75–76).

In an ordinary case, the often repeatedly layered interferences in the “System of interference” need to undergo a gradual ablation in order to arrive at a habitually non-interfering sensory processing within the “Epistemic system”. This systematical degradation of interferences is operationalized by the “Introvision” (according to Wagner [2007] 2021), a technique of mental self-regulation that was developed at the University of Hamburg by Wagner, Iwers and colleagues (Wagner et al. 2016). As the Introvision is not yet described in English, its basic theoretical and practical tenets have been summarized in Appendix B.

On the one hand, the TMI is applicable to each developmental state of Western psychological step models. On the other hand, the TMI is congruous with the framework of the TMMW with regard to its two essential aspects: the concept of self/no-self and the basic mechanisms of “Mindful exercise” (Deroche 2021, pp. 19–20). The concept of self/no-self within the framework of the TMMW can be retrieved from its spiritual approach (Deroche 2021). The basic mechanisms of “Mindful exercise” are defined within the TMMW in an understanding of “clear comprehension” (Deroche 2021, p. 20), which includes cognitive processes (including judgements) that are emotionally unbiased and not automatically reactive within their mnemonic, conceptual and attentional dimensions (Deroche 2021, pp. 20–24). The TMI, as a psychological framework for sensory and cognitive processing (especially regarding mental conflicts), can explain the same basic mechanisms of “Mindful exercise” in a more general perspective that also includes the mechanisms of emotional bias and impulsivity.

2.2.2. Integration of the “Threefold Model of Mindful Wisdom” and the “Theory of Mental Interference”

The integrated model of the TMMW and the TMI (introduced in the following section) includes for each level of “mindful wisdom”, the summarized components of the TMMW (according to Deroche 2021, p. 29), the different educational goals (associated accordingly to the analysis of Section 2.1), the different characteristics of the mode and focus of attention, an exemplary beginner’s conflict and the, respectively, suggested exercises in terms of Wagner’s “Stated attentive perception”¹⁶ (SAP) to resolve that conflict (see Table 2).

Table 2. An extended and integrated framework of the “Threefold model of mindful wisdom” (summarized according to [Deroche \(2021\)](#)), including educational goals, modes of attention, and foci of attention as elements needed for the analysis and resolution of beginner’s conflicts with the aid of the “Theory of mental interference” and the “Stated attentive perception” (both according to [Wagner \[2007\] 2021](#)).

Threefold Model of Mindful Wisdom (Deroche 2021)	Educational Goal	Mode of Attention	Focus of Attention	Exemplary Beginner’s Conflict	Suggested Exercise (Wagner [2007] 2021)
Level 1: study of something by tradition and teachings using memory and keeping such vital information “ <i>Present in mind</i> ”	knowledge	exteroceptive	Narrow	being blocked/helpless	SAP I and II
Level 2: reflection of something learned by logical thinking and self-reflection using mindful judgments to formulate adequate “ <i>Re-Present-ations</i> ”	skills	alternating: exteroceptive and interoceptive	alternating: narrow and wide	being prejudiced	SAP III
Level 3: cultivation of something learned by intuition/direct experience using attention and exercising “ <i>Presentification</i> ” or “ <i>Presence of mind</i> ”	attitudes	interoceptive	Wide	being apathetic	SAP IV

The first exemplary inner conflict of a beginner learner of mindfulness arises in the context of level 1 of the TMMW, which consists of the educational goal of gaining and reproducing basic knowledge. The student’s attention is directed towards the teacher (or the teaching), and instructions are taken literally. Accordingly, the mode of attention is exteroceptive, and the focus is narrowed down to prevent distraction. The instruction may be: “Don’t follow the wandering mind and attend the present moment!” The default in the form of an overcharging cognition may be: “I can’t stop the wandering mind. I want to follow the teacher’s instructions, but I do not know how.” The student unknowingly couples the default with affect (step 1), inhibits the default cognition (step 2) and (in step 3) inhibits the default cognition to prepare the implementation of the following self-instruction: “I have to try harder, I must stop the wandering mind!” This subjective imperative is charged with arousal in order to keep it operating. Consequently, the student proceeds on trying to follow the instructions, although with a narrowed focus of attention on the subjective imperative instead of the initial instruction by the teacher (which is related to step 4 in the process of mental interference, see [Figure 2](#)). After a while, the student gets more stressed and frustrated about the failed exercise. The conflict manifests in the feeling of helplessness. In terms of SAP I and SAP II exercises (in which the student is instructed to memorize and confidently focus on the literal instruction while neutrally noticing body sensations or emotions related to frustration or despair in case it does not work immediately), a student could be helped in two ways. On the one hand, the stress level would decrease as the “System of interference” would not add any new interferences. On the other hand, this exercise would allow the student more time to realize the difference between “Do not follow the wandering mind!” and “Stop the wandering mind!” An important learning outcome, in this case, would be the ability to differentiate between an epistemically reasoned decision and an interfered (emotionally charged) self-instruction.

In the context of level 2 of the TMMW, which consists of the educational goal of acquiring important skills, the second exemplary inner conflict arises. The student's attention on this level shifts between an exteroceptive focus on the educational object and an interoceptive focus on the sensory input related to the process of learning (that both can be narrow or wide). The instruction may be the following: "Search for your independent routine for practicing mindfulness!". Over several weeks, the student observes their own attempts at practice and tries out different settings. With due regard to the gained observations, the student concludes which type of setting will bring the best stress-relieving results. Accordingly, the student builds up their own practice routine. A few months later, circumstances change and make it impossible to continue the established practice routine. Along with this, the default in the form of a discrepant cognition may take the following form: "The best possible way for my practice routine became impossible to follow." The student unknowingly couples the default with affect (step 1), inhibits the default cognition (step 2) and (in step 3) prepares the implementation of the following self-instruction: "I must find a way to restore the setting as it was!" This subjective imperative is charged with arousal in order to keep it operating. Consequently, the student proceeds to restore his practice routine, but this time with a narrowed focus of attention, always having the previous setting as a threshold in mind (which is related to step 4 in the process of mental interference, see Figure 2). No matter how close the student will come to aligning the new circumstances with the old ones, the effect will not be the same as long as the "System of interference" is activated and holds the psychic tone on a higher stage. Eventually, the student gets frustrated. The conflict manifests in the feeling of being prey to circumstances. In terms of an SAP III exercise, an extended and differentiated task construction with well-established methods of opinion formation (e.g., listing pro and contra aspects concerning a specific issue or conducting a role play with given characters while explicitly reflecting on the value measures underlying the judgments) is conceivable. By doing so, a student on this level of "mindful wisdom" could be helped in two ways as well. On the one hand, they would learn how to differentiate habitually between a judgment and the underlying measures of values and, on the other hand, the student could come to realize the contextual dependence of these measures of values.

The third exemplary inner conflict arises in the context of level 3 of the TMMW, which consists of the educational goal of developing embodied/internalized attitudes that allow a sustainable and independent self-application of whatever has been learned so far. On this level, the student's attention mode is mainly directed towards the inner flow of sensory processing and is thus interoceptive—the focus of attention is likely wide.¹⁷ The student who once suffered from exam anxiety is starting to internalize the practice of serenity and knows how to disidentify with the discursive mind. The student now understands on an experiential level that exam ratings are context-dependent, partly subjective and not geared to the inner values or the self. Even in very challenging exam situations, the student can keep the stress level during exam preparation and exam performance comparatively low, which often leads to comparatively higher ratings of the exam performance. Towards the end of school education, the student realizes that to get the most desired job, certain marks in the final examination certificate are required and therefore, their exam performance needs to be improved. Along these lines, the student proceeds with the exam preparation. At some point, the student gets the impression of a need for breaking some of the established habits of mindfulness practice in order to actively leave the comfort zone. The default in the form of incompatible cognitions may be: "In order to earn good marks in the upcoming final school exam, I need to let go habits of mindfulness, but when I become too ambitious, my exam anxiety may come back and impair my exam performance." The student unknowingly couples the default with affect (step 1), inhibits the default cognitions (step 2) and (in step 3) prepares the implementation of the following self-instruction: "I may not push myself just for the sake of good marks!" This subjective imperative is charged with arousal in order to keep it operating. Therefore, with a narrowed focus of attention (which is related to step 4 in the process of mental interference, see Figure 2) the student starts to question

the meaning of good marks/use of taking part in a competition. Eventually, the student questions the desire for this particular job—not out of deep insight but out of ignorance about the ways to effectively motivate oneself positively. The conflict manifests in the feeling of being apathetic. Here, exercises of goal setting, planning and attainment would be conceivable. With this, the student could gain self-awareness concerning advantages and deficits in their goal pursuit behavior (cf. [Gollwitzer 1999](#)). In terms of an SAP IV exercise, an empirical experiment could be implemented to engage the student in observing their sensory experiences in situations of intrinsic motivation for personally salient activities. An important learning outcome in this regard may be the student's ability to differentiate between interfered extrinsic motivation that eventually creates stress and intrinsic or autonomous motivation (cf. [Ryan et al. 1997](#)) that finds its impulses within the "Epistemic system" and, thus, is enjoyable ([Waterman 2005](#)).

3. Discussion and Practical Implications

To start off with, in the described historical succession (Age of Faith, Age of Reason and Age of Attitudes), one can find parallels to the three levels of the TMMW as well as to the tripartite structure of national and international didactical concepts ([CMEC 1997](#); [KMK 2012](#); [European Parliament and Council 2006](#); [UNESCO 2013](#); [United Nations 2015](#); see also Sections 2.1.1 and 2.1.2). This parallelism does in no way imply the (no longer widely held) biological "Recapitulation theory", which claims that the individual development recapitulates the evolutionary development of the respective species. Applying this theory in the current context would lead to accepting two erroneous presuppositions. The first would classify educational systems and adult human beings in general from other cultures as deficient if they represent what this view identifies as "an earlier developmental stage" ([Fallace 2012](#)).¹⁸ The second wrong presupposition is that today's humans are, by some account, superior to historical ones. Here, the newly contextualized and dynamically articulated model of TMMW can serve to avoid this defective interpretation. [Deroche \(2021\)](#) describes how the Buddhist wisdom-tradition has been re-actualized by every generation: students have to follow the traditional teachings, engage in discussion and self-reflection, and apply or actualize their knowledge personally, and finally transmit such lived experience to others through teaching, debating or composing their own texts (*ibid.*). This, again, goes in line with major evidence from developmental psychology according to which school-aged children and young adults traverse cognitive stages shaped by roles/rules, abstraction/logic and—if achieved within school age—autonomy (cf. [Berk \[1998\] 2018](#)).

Concerning the more concrete didactic relevance of the TMMW for the modern educational system in Germany, no final judgment can be achieved. Until today, the main body of didactical thinking and curriculum development throughout primary and secondary education is organized decentrally (except for the subject-specific guidelines for the graduation's final exams, see [KMK 2007](#)). Nevertheless, wide-ranging parallelism between the TMMW and the RA I–III could be demonstrated: both didactical frameworks are structured in a dynamically articulated trichotomy, in which each level comprises the previous one(s) and is applicable separately or in combination with the previous or following level(s). The differences found in the level's structure regarding the educational objectives (according to the revised Bloom's taxonomy, [Anderson and Krathwohl 2001](#)) can be interpreted in relation to the respective context of application and pedagogy. The 5th category of knowledge ("Evaluate") belongs to RA III, however in the TMMW it belongs to level 2. This can be explained by the predominant didactic focus of the TMMW on the mindfulness centered pedagogy of direct experience in terms of the practice of "bare attention" ([Deroche 2021](#)). According to Deroche, "the exercise of mindful awareness, or mindful wisdom, represents the systematic cultivation of the core cognitive power of integration or synthesis" ([Deroche 2021](#), p. 28), and this is what the 6th category of knowledge ("Create") stands for ([Anderson and Krathwohl 2001](#)).

The fact that the TMMW is not meant to provide a didactical framework for achievement evaluation may be explained likewise by its context of application and pedagogy.

In the case of integration of the TMMW into modern educational systems, the *Taxonomy of educational objectives. Handbook II: the Affective domain* by Krathwohl et al. (1964) could serve as a basic approach for evaluative conceptualizations. Further research could provide a detailed comparison of subject-specific formulations of the RA I–III. Such oppositional comparison could also serve as an impulse for the further integration of “responsible transformative engagements” (OECD 2019b) into concrete didactical concepts of modern educational systems.

Although the didactical consideration of attitudes presently increases its impact (e.g., the most recent PISA framework also refers to the SDG 4.7 by the United Nations: see OECD (2019a)), the increasing centralization of curriculum development and achievement assessment does not provide the optimal environment for the development of intrinsically motivated attitudes. An explicit training of reflected skills of discernment (that comes with consciously adduced values), as suggested in Section 2.2.2, could support transparency and objectivity in the evaluative process of achievement and teaching evaluation. This could help students to deal with their educational achievements and to develop their intrinsic motivation more independently, away from ratings and competition. The integration of demand-actuated exercises (similar to those suggested in Section 2.2.2) into the regular school curriculum might be of an increased future’s educational interest as the current program of the “Global education 2030 Agenda” by the OECD (2019b) investigates the felicity conditions of “responsible transformative engagements” (ibid.). The program defines four differently challenging types of personal engagement (“Duty-based”, “Participatory”, “Justice-driven”, or “Liberatory”, OECD (2019b)). Future research may investigate, if the insight of intrinsic or autonomous motivation, to which the suggested exercise on level 3 of the extended and integrated framework of TMMW is targeted, can play a central role for liberatory responsible transformative engagements.

A didactical approach that integrates the TMMW into modern educational systems is conceivable in two different ways. It could be possible either to extend the RA I–III by explicitly including attitudes (based on Krathwohl et al. 1964) and the emphasis on metacognitive knowledge within all three RAs, or to include the affective domain in terms of a parallel taxonomy of educational requirements (based on Bloom et al. 1956; Krathwohl et al. 1964). However, given the emphasis on average learning outcomes prevalent in the present-day German educational system, it seems unlikely that the former approach could be followed any time soon.

Concerning the methodological (practical) fitness for in-class implementation of the TMMW, it was argued that the differences in the inherent concept of a self would call for a mediating framework that is simultaneously compatible with the TMMW as well as with basic pedagogical assumptions of modern Western education. On top of that, there is a reasonable doubt if it is possible to separate the concept of mindfulness and its applied methods in MBPs from its religious context (Brown 2016) and if the actual practice and vocabulary within MBPs can be considered secular (Rahmani 2021). However, these questions must be investigated individually in connection to the specific MBP implemented in education and shall not be discussed here. It can be stated that recently introduced neurobiological and psychological frameworks for mindfulness (e.g., Vago and Silbersweig 2013; Lindsay and Creswell 2017) do not include entirely secularly generated exercises and instructions to teach mindfulness.

The TMI supports the age-dependent needs described in pedagogical step models of psychological development (cf. Berk [1998] 2018) and comes along with secularly developed SAP exercises that are applicable to, stepwise, instruct mindfulness practices. As the TMI postulates a correlation between an increased psycho tone and a narrowed focus of attention (as well as between a decreased psycho tone and a widened focus of attention), it could serve as a simplified framework to describe the basic psychological mechanisms of attention regulation in both, “Open Monitoring” meditation techniques (OM) and “Focus Attention” meditation techniques (FA) (as defined by Lutz et al. (2008)).

Besides its secular background, the TMI comes along with two features to promote self-knowledge, both of which make the TMI particularly relevant for an application in educational contexts. Firstly, the Psycho tone scale serves as an orientation for one's own state of psychological tension and does not imply the long-term goal to reach psycho tone 1. Introvision or SAP exercises can be used to lower the psycho tone (or to reach deeper relaxation if preferred). However, the knowledge about how to bypass a conflict can also be used as a preliminary yet effective solution to quickly deal with a conflict in a situation of limited conflict coping resources. Secondly, by analyzing the mental interferences with the aid of TMI, the cognitive part in affective reactions or the affective part in cognitive processes, respectively, will be elucidated. This promotes, for one thing, the ability to differentiate between emotionally charged judgements and epistemically evaluated discernments (neutral observation, in particular, is relevant for learning in scientific subjects), and, for another thing, the understanding of the context-dependent nature of emotions (cf. [Barrett 2017](#)). Thereby, in terms of psychoeducation, the TMI can help to promote the importance of "attention" as an epistemic faculty that needs to be developed equitably alongside the cognitive faculties of "memory" and "judgment".

The generalizability of the introduced exemplary mental conflicts for each level of the TMMW has not been verified, and it is subject to further research to find out more about the frequency and probability distribution of mental conflicts among students with respect to the levels of TMMW. In this regard, the suggested exercises that have been matched to the beginner learner's situation in MBPs implemented in education can be seen as impulses for further research and its discourse regarding demand-actuated implementation. The need for such research is further supported by the neuroimaging evidence reported by [Tang and Posner \(2015\)](#). The latter study could determine which neural networks are involved, and to what extent, in early, intermediate, and advanced stages of meditation practice, depending on the degree of effort applied to the maintenance of the meditative state ([Tang and Posner 2015](#)). The more effort required during the meditation practice, the more activities were shown in the lateral prefrontal cortex (LPFC) and parietal cortex (PC), that is, brain regions that are associated with voluntary control of behavior (*ibid.*). Advanced meditative states (in FA or OM meditation) are maintained by activity in the Anterior Cingulate Cortex (ACC) and striatum, which are "mainly related to autonomic or/and emotional control" ([Tang and Posner 2015](#), p. 85). These findings could support the assumption that beginner learners of meditation still tend to use the "System of interference", even though the exercises of meditation superficially seem to be executed (as the exemplary mental conflicts for all three levels demonstrate, see Section 2.2.2).¹⁹ In this regard too, further research is needed.

Regarding the implementation of MBPs conceptualized on the basis of TMMW into the regular school curriculum in modern educational systems, several advantages are thinkable. The explicit integration of the concept of mindfulness or "Presence" (according to the TMMW) into the learning process could help to support the recognition of individuality in perspective and therefore promote tolerance among students. Moreover, this could help promote the integration of TMMW oriented educational goals into standardized regulations and guidelines of didactics and methodology. Public recognition of the importance to include psychoeducational concepts and teaching methods into curricular development could eventually give impulses to rethink psychological step models of cognitive and socio-emotional development. Possibly, this could promote further research in the psychological field of self-transcendence (cf. [Berk \[1998\] 2018](#), p. 611), although with a more age-independent approach.

New Perspectives for Starting and Existing Mindfulness-Based Programs in Education

The increasing interest in implementing the MBPs into educational contexts (next to other contexts) is often explained by the growing need for wellbeing (stress reduction) and slow movement in the globalized world that keeps on increasing the speed of technological development and therefore increasing the demand for adaptation to the growing complexity of information flow and competition (cf. [Rosa 2012](#)). [Knauth and Roloff \(2021\)](#) interpret the

societal drive of the “mindfulness movement” as a subjective counter-reaction in regard to Jaeggi’s “alienation diagnosis of society”—a current socio-philosophical problem that manifests in a relationally disturbed sense of autonomy (Jaeggi 2016 in: Knauth and Roloff 2021). Concerning the world of experience of school children, the positive flip-side of this drive might be relevant: by reconnecting to body sensations and integrating the emotionally unbiased perspective of inner awareness into their learning process, students can generate self-knowledge and perceive self-efficacy. In connection with the general deficit in modern societies of a healthy connection to bodily experiences (Müller-Braunschweig and Stiller 2010), this benefit of practicing mindfulness seems to create a special interest for students who undergo age-dependent fundamental bodily transitions. Similarly, given the increased pressure that students experience due to the standardization of educational goals and achievement evaluation, the stress reductive effect and slow movement may provide great advantages for students’ development. The additional benefit of enhancing self-knowledge and perceived self-efficacy as a positively driven interest should not be neglected when it comes to the articulation of the need for MBPs in education.

In connection to the ongoing discourse concerning the need to reconnect MBPs to the traditional Buddhist context (cf. Kuan 2008; Bodhi 2013; Gethin 2015; Sharf 2015; Anālayo 2019), there are possible advantages to maintaining the secularity of MBPs in education: the recognition and integration of its historical origins could cause a turning point for MBPs in educational contexts (analogous to such effect in the history of Western educational ideas). This could give another impulse to reflect on its conception of the self and the educational goals within the specific framework of the respective MBP. In this context, the contextualization of MBPs implemented in modern educational systems based on the Buddhist wisdom traditions (as Deroche (2021) did in terms of the TMMW) is advocated not only as a result of its compatibility with basic didactical concepts in modern educational systems (e.g., the RA’s of the German educational system), but also due to the transparent linkage to its Buddhist origins.

Furthermore, a conceptualization of MBPs implemented in modern educational systems on the basis of TMMW could support existing impulses to rethink the predominance of the elements of being “non-judgmental” and “present-centered” within the definition of “mindfulness” (e.g., Dreyfus 2013; Gethin 2015). Feldman and Kuyken (2019) accordingly suggest a differentiation between “judgment” and “discernment” on a cognitive level as well as on the level of direct experience. Such differentiation can teach how to “disengage from the usual patterns of discursivity and reactivity through which we usually function” (Dreyfus 2013, p. 52). Correspondingly, Deroche suggests a “mindful discipline of judgment” (Deroche 2021, p. 25). In the sense of emotionally unbiased discernment, judgments can serve as an orientation for decision-making (which is essential for educational goals in the modern German educational system).

The exemplary mental conflicts introduced in this paper and their analysis in terms of the TMI could serve to support autodidact learners of mindfulness. There is no didactical function for achievement evaluation involved in the TMMW, and the learners of secular MBPs may miss the support—especially in terms of evaluation and self-reflection—that a monastic community can provide for Buddhist novices. The model of the four steps of mental interference (Figure 2) could serve as an easily applicable analytical instrument for cases, in which a mindfulness exercise works well or not (in case of mental interference).

One possible way of dealing with mental conflicts of beginner learners in MBPs would be to explicitly incorporate the individual quest and resolution of mental conflicts into the teaching methods. In this case, the Introvision (according to Wagner ([2007] 2021), see Appendix B) would lend itself as an appropriate and secular method that could be taught to the students (Klebanova forthcoming). In this case, a further alignment of the actual exercises to the beginner learner’s situation would be pursued on an individual basis.

4. Summary and Conclusions

The TMMW (according to [Deroche 2021](#)) is of twofold interest for the wide-ranging interdisciplinary scientific discourse regarding the definitional construct of mindfulness and the existent trend of implementing MBPs into modern educational systems: 1. It provides a philosophical contribution to the definitional discourse and transparently (re)contextualizes an integrative and dynamically articulated construct of mindfulness within Buddhist wisdom traditions; 2. The TMMW, understood as a didactical framework for mindfulness, provides several starting points for examining the theoretical and technical fitness of MBPs for modern educational systems. In the quest of rethinking mindfulness in education, the relevance of the TMMW as a newly contextualized framework of mindfulness was examined in two steps: at first, the relevance for didactics in modern Western educational systems (with a special focus on the region of Germany) was examined; secondly, the methodological fit of the TMMW for the possible implementation in modern educational systems with the aid of the TMI (according to [Wagner \[2007\] 2021](#)) was elaborated.

Remarkable conceptual overlaps were found regarding significant educational terms and concepts in Western didactics, such as the terms of “knowledge”, “skills”, and “attitudes”. These terms took special meanings within the history of Western educational ideas and currently seem to be widely understood as a basic tripartite taxonomy for educational objectives and achievement evaluation. At the same time, they can be considered to express the basics of the three levels of “mindful wisdom” within the TMMW.

A need for an alternative secular framework of mindfulness in education has been derived from the incompatibility of basic psychological mechanisms and conceptual assumptions regarding the self within the framework of TMMW and within Western psychological models of cognitive and socio-emotional development. As a candidate for such a secular psychological framework, the TMI (developed at the University of Hamburg by Wagner and colleagues) was introduced. The basic approach of the TMI postulates the epistemic level of cognitive processes (the “Epistemic system”) (1) to be unbiased by affect and (2) to be different from a level of mental interference (the “System of interference”), which in case of an arising default habitually interferes with the “Epistemic system” ([Wagner \[2007\] 2021](#)). To assure the theoretical and practical compatibility of the TMI and the TMMW, both frameworks have been compared regarding the concept of self and basic psychological mechanisms of “mindful exercises” ([Deroche 2021](#)). An integrated model of the TMMW and the TMI was introduced. For each level of the integrated and extended TMMW, an exemplary mental conflict was introduced and analyzed in regard to processes of mental interference with the aid of the TMI. Based on these mental conflicts, different exercises have been proposed methodically linked to the respective learners’ needs on each level of the integrated model of the TMMW and the TMI. The current paper discussed the integrated model’s advantages of promoting the cognitive faculty of “Attention” as an equitable element alongside the cognitive faculties of “Memory” and “Judgment” within an educational process, as well as the potential for self-knowledge by integrating the practice of self-awareness into each stage of such educational process.

For further research and its discourse regarding demand-actuated and self-regulated learning environments, the suggested exercises that are adjusted to the beginner learner’s situation in MBPs implemented in education were discussed as a considerable impulse. Another impulse for future studies in regard to the neural networks involved in early, intermediate, and advanced stages of meditation practice and their practical implications for demand-actuated implementation has been discussed in the context of the findings from [Tang and Posner \(2015\)](#). Moreover, a prospect for a revision of step models of cognitive and socio-emotional development regarding a more age-independent approach of self-transcendence has been considered possible.

As for practical implications for modern educational systems, the integrated model of TMMW and TMI could serve as a thoroughly secular framework that could complement any interdisciplinary didactics that is based on the tripartite structure of “knowledge, skills and attitudes” and that aims at the learner’s self-empowerment in the individual

learning process through self-knowledge. The *Taxonomy of educational objectives. Handbook II: the Affective domain* by Krathwohl et al. (1964) was considered as a basic approach to explicitly include attitudes into competency models for achievement evaluation and to complement existing didactical frameworks. In this context, the TMI and the four exercises of the “Stated attentive perception” (SAP, see Appendix B) in particular were discussed as a help to teach young and adolescent students, gradually, the difference in interfering versus non-interfering attention regulation. The findings of Section 2.2. might be applicable to the drivers of modern educational systems, as the methodology deals with techniques and learning tools, which are being relatively independently chosen and conducted in a class by the teachers (according to the educational setting and the learners’ needs).

For starting and existing mindfulness-based programs in education, it was suggested the possible benefit concerning the enhancement of self-knowledge and perceived self-efficacy (cf. Deroche 2021) needs pointing out when it comes to the articulation of the need for MBPs in education. Generally, the contextualization on the basis of the Buddhist wisdom traditions for MBPs implemented in education was advocated: (1) due to the compatibility with basic didactical concepts in modern educational systems; (2) as it explicitly includes cognition and evaluation and; (3) as a result of the transparent linkage to its Buddhist origins. The model of the four steps of mental interference (Figure 2) was discussed as an instantly applicable analytical instrument for cases in which a mindful exercise works well or it does not (in the case of mental interference). It remains to be seen in the future whether or not the integrated framework of TMMW and TMI can provide a description of MBPs that is more adequate for educational needs—especially in regard to the compatibility with subject-specific didactical concepts.

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Appendix A. Comparative Overview of Exemplary National and International Curricular Regulations for Modern Educational Systems

In 2006, the European Parliament and Council published a recommendation of eight “Key Competences for Lifelong Learning” (European Parliament and Council 2006) to enable Europe’s citizens “to adapt flexibly to a rapidly changing and highly interconnected world” (European Parliament and Council 2006, p. 13). The importance assigned to the adaptivity can explain (and be explained through) the focus shift from a defined (input-oriented) curricular catalogue of knowledge and skills towards an (output-oriented) framework of the so-called “key competences”. The key competences, in their turn, have been defined in detail in terms of the three aspects, that is, “knowledge, skills and attitudes” (European Parliament and Council 2006, pp. 13–18). In 2013, UNESCO introduced their framework of the “Global Citizenship Education” in order to “empower learners to engage and assume active roles both locally and globally to face and resolve global challenges and ultimately to become proactive contributors to a more just, peaceful, tolerant, inclusive, secure and sustainable world” (UNESCO 2013, p. 3). Here, four core competencies have been listed: “1. knowledge [...], 2. cognitive skills [...], 3. non-cognitive skills [...] and 4. behavioral capacities to launch and engage in proactive actions” (UNESCO 2013, p. 4). The third core competence consists of a catalogue of non-cognitive skills that are

essential for the attitudinal performance within the overall goal of UNESCO's "Global Citizenship Education" (see above). Therefore, the third core competence can be seen as a transition towards the fourth ultimate behavioral competence of engaging in proactive actions. Shortly afterwards, in 2015, the United Nations announced "the 2030 Agenda for Sustainable Development", which determined 17 "Sustainable Development Goals (SDG's)" and 169 sub-targets (United Nations 2015). The SDG 4.7 is the only sub-target among ten sub-targets on education (which otherwise concentrate on inclusiveness and equity in education, educational access, organizational structures and teacher training) that deals explicitly with a curricular concept. Although SDG 4.7 is captured in a single sentence, it can be analyzed so as to talk about three main categories: knowledge, skills and attitudes. The category "attitudes" is not labelled as such in the text. However, next to knowledge and skills (which are explicitly classified as two separate categories), several actions are listed, which may result from the acquired knowledge and skills "[...] to promote sustainable development [...]" (United Nations 2015, p. 19). Although there are remarkable overlaps between the core concepts laid out in the above documents (see Table A1), the authors of the respective documents have not referenced each other (with the exception of the terminological anchoring of "global citizenship" in the "Sustainable Development Goal on Education 4.7" by the United Nations that is the parent organization of the UNESCO). The first explicit mention of attitudes next to knowledge and skills in the context of pedagogical directives issued by governmental institutions, however, can be traced back to 1997 in Canada. Two years after the pan-Canadian protocol for collaboration on the school curriculum, the "Council of Ministers of Education, Canada" (CMEC) introduced the "Common Framework of Science Outcomes" to promote "Canada's place internationally [...] to ensure greater harmonization [...] of educational opportunities across Canada [...] based on shared and relevant goals, and to demonstrate accountability for achieving them" (CMEC 1997, p. 2). The framework identified four key components of scientific literacy: "science, technology, society, and the environment (STSE), skills, knowledge, and attitudes" (CMEC 1997). At first glance, the order of these components stands out compared to those found in the international documents mentioned above. Nonetheless, given that the STSE already includes basic knowledge, it can be seen as a part or a pre-stage of the third key component of scientific literacy. Besides the overlap in content, the Canadian framework provides a precocious statement on the necessity for including attitudinal indicators into curricular concepts in terms of output-orientation and adaptivity: "Scientific literacy is an evolving combination of the science-related attitudes, skills, and knowledge students need to develop inquiry, problem-solving, and decision-making abilities, to become lifelong learners, and to maintain a sense of wonder about the world around them." (CMEC 1997, p. 4).

Table A1. Comparative overview of exemplary national and international curricular regulations for modern educational systems (sources from CMEC 1997; European Parliament and Council 2006; UNESCO 2013; United Nations 2015).

Key Components of Scientific Literacy in the Common Framework of Science Outcomes K to 12 (CMEC 1997)	Aspects of Key Competences for Lifelong Learning (European Parliament and Council 2006)	Core Competencies for Global Citizenship Education (UNESCO 2013)	Sustainable Development Goal on Education 4.7 (United Nations 2015)
Science, technology, society and the environment (STSE)—Students will develop an understanding of the nature of science and technology, of the relationships between science and technology, and of the social and environmental contexts of science and technology.	Knowledge	Knowledge and understanding of specific global issues and trends, and knowledge of and respect for key universal values (e.g., peace and human rights, diversity, justice, democracy, caring, non-discrimination, tolerance)	[...] knowledge [...]
Skills—Students will develop the skills required for scientific and technological inquiry, for solving problems, for communicating scientific ideas and results, for working collaboratively, and for making informed decisions.	Skills	Cognitive skills for critical, creative and innovative thinking, problem-solving and decision-making	[...] skills [...]
Knowledge—Students will construct knowledge and understandings of concepts in life science, physical science, and Earth and space science, and apply these understandings to interpret, integrate, and extend their knowledge.	Attitudes	Non-cognitive skills such as empathy, openness to experiences and other perspectives, interpersonal/communicative skills and aptitude for networking and interacting with people of different backgrounds and origins	[...] to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of cultures contribution to sustainable development.
Attitudes—Students will be encouraged to develop attitudes that support the responsible acquisition and application of scientific and technological knowledge to the mutual benefit of self, society, and the environment.		Behavioral capacities to launch and engage in proactive actions.	

Appendix B. Introvision—A Technique of Mental Self-Regulation

Introvision is a technique of mental self-regulation that aims to resolve inner conflicts and has been developed by Wagner, Iwers and colleagues at the University of Hamburg during the last 35 years (cf. Wagner et al. 2016). Although it has some elements (e.g., the “Stated attentive perception”, see below) in common with most mindfulness-based programs currently implemented in schools, the Introvision differs in its application to specific (reoccurring) situations of inner conflicts. Research evidence indicates Introvision

can help in dealing with writing blocks (Möller 2008), tinnitus (Buth 2011), chronic neck pain (Pereira Guedes 2011), and math anxieties (Iwers-Stelljes et al. 2014) as well as in reducing social stress within exam settings (Klebanova forthcoming) and competitive sports (Benthien 2011).

Alongside the TMI, which describes how inner conflicts appear within the scope of sensory processing (see Figure 2), the Introvision is based on an extended theoretical background. The “Theory of Subjective Imperatives” (TSI) (according to Wagner et al. 2016) models in the first place the semantic manifestation of a subjective imperative (inner self-instruction with its “must-/must not-syndrome”, a linkage with emotional arousal). Moreover, it explains and depicts the conjoined structure of inner conflicts that typically find its highly emotionally charged core among a few variations of “core imperatives” that are, hypothetically, very similar in all humans. Assuming the conjunction of different subjective imperatives results from repeated overwriting (as it has been described within the framework of the TMI, see Section 2.2.1) according to previous life experiences, the TSI can explain the greater diversity of reported subjective imperatives regarding specific situations compared to the lower number of individually encoded core imperatives regarding one’s own greatest fear (e.g., “I must be loved!”/“I must not be lost!”/“I must not be helpless!”, see Wagner [2007] 2021, p. 180).

The first phase of Introvision aims at analyzing the structure of the inner conflict, starting with the situation in which the conflict habitually shows its adverse impact (may it be a mental block, stomach pain or an irritating emotion). By stating the possibility of the same event, that the subjective imperative should prevent (the so-called “subcognition”, see Wagner [2007] 2021) and asking for the bad elements of it, the linkage to the next subjective imperative gets revealed, whereas the linkage itself typically shows up in the form of “if-then-phrases” (ibid.). Depending on how much one is ready to face one subcognition after the other (not only intellectually but also emotionally), one gets access to the subjective imperatives, which are charged with increasing arousal and finally to the core imperative. The given chain of subjective imperatives in Figure A1 serves as a fictitious, yet still realistic, example.

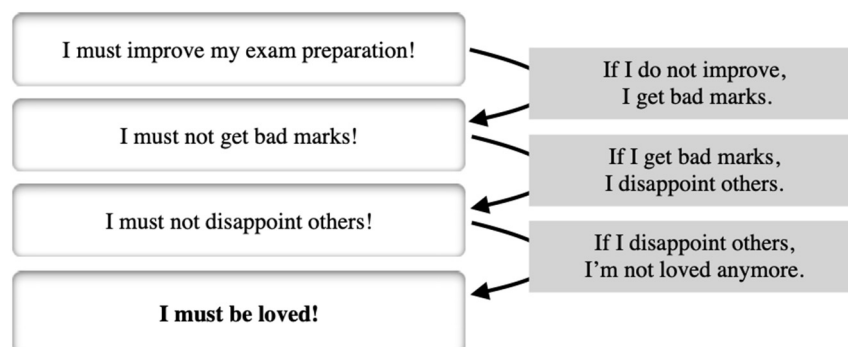


Figure A1. Exemplary “chain of subjective imperatives”, the white boxes display the “subjective imperatives”, the imperative written in bold letters is the “core imperative”, the grey boxes give the gist of the “if-then-phrases” that link the imperatives (according to Wagner [2007] 2021).

The second phase of Introvision seeks to decouple the subcognition of the core imperative from its emotional charge. This succeeds with the aid of a certain technique of attention regulation (also developed by Wagner and colleagues, see Wagner [2007] 2021), called “stated attentive perception” (SAP). The SAP is distinguished by six characteristics (Wagner [2007] 2021, p. 99, translated from German):

1. stating the attention, in other words: epistemically noting “That’s how it is!” (namely: the respecting cognition)—without interfering the sensory processing;
2. keeping a constant focus of attention—without wandering away, as much as possible;
3. widening the attention—not narrowing it down to concentrate with mental effort;

4. perceiving/to literally watching, listening, feeling, smelling, tasting— not repeating knowledge from other experiences or associations;
5. directing the attention without actively suppressing other occurring cognitions in the margins of consciousness;
6. refraining from actively and interferingly searching for a solution (that can be deferred until later where applicable).

The decoupling of the subcognition from its emotional charge can be achieved by setting here the focus of SAP for a little while. Sometimes it can be done in less than a minute, sometimes it needs a little longer or several attempts (see [Wagner \[2007\] 2021](#)). The psychological mechanism behind this effect can be comparatively described by a reappraisal of the subcognition (see [Herwig et al. 2010](#)).

To prevent further interferences from the moment of starting the Introvision, the first phase already happens in the mode of SAP. Therefore and as a result of its key role in the second phase of Introvision the SAP needs to be trained in advance (mostly within a setting of one-on-one counseling). The SAP training has been developed and evaluated by Wagner and colleagues in more than 60 studies from different fields of target groups. Further adaptations of the training for high school students have been developed by [Klebanova \(forthcoming\)](#).

These are the four basic and stepwise SAP exercises according to [Wagner \(\[2007\] 2021\)](#): Exercise SAP I aims at stating the perception—including body sensations, emotions and any cognitions like thoughts and memories or imaginations. The development of a witness's state of attention that enables the differentiation between cognitive and affective components accompanied by body sensations in emotionally charged situations is crucial for the further three exercises. SAP II aims at the ability to widen the focus of attention while keeping the witness's state of mind trained in the first exercise. If, for instance, cognitions related to visual perception are observed, even objects and impressions from the very edges of the visual field are included in the exercise. Likewise, for the observation of body sensations, the number of sensations that are observed at once will be increased gradually and without losing the stating mode of attention. The enhanced relaxation effects from this exercise can be neurologically explained by the findings of [Herwig et al. \(2010\)](#). In exercise SAP III, a constant focus will be set while the attention will be held wide and neutral as trained in the exercises before. This exercise aims at a reduction in mind wandering and at the habituation of the stating and attentively widened perception. In SAP IV, finally, the focus of attention will be set on an emotionally charged cognition (e.g., a thought, a memory, an imagination, a certain body sensation, or another sensory impression) while the attention will be kept widened and as neutral as possible. In this way, the continuation of mental interference can be interrupted, and the coupling between the cognition and the affect can be resolved.

Notes

- ¹ In this paper, the term “modern educational systems” refers to national (often territorially organized) educational systems of Western industrialized countries (cf. [Benner 2002](#)). It should be added, that there is no commonly accepted definition to refer to. The reason for using this term is twofold: 1. The list of countries where Mindfulness currently plays a role at all (cf. [Ergas and Hadar 2019](#); [Zenner et al. 2014](#)) is roughly covered by the list of countries classified as “Western industrialized countries”. 2. Those countries seem to be oriented towards each other (e.g., via the OECD “Programme for international student assessment” (PISA)). Therefore, it makes sense to pool the educational systems of these countries for a joint examination in this paper.
- ² Dreyfus 2013, S.52–53: “[...] present-centred non-judgmental attention is only one of the modalities of mindfulness, which is much broader in its scope, including explicit recollective abilities to remember the past and cognitive abilities to evaluate mental and bodily states. [...] Mindfulness is central to Buddhist practice not because it provides the degree of self-acceptance necessary to mental health but because it leads to liberative cognitive transformations.”.
- ³ In particular, the TMMW is related to “the paradigmatic model of the ‘threefold wisdom’ or the ‘three wisdoms’, respectively, born from (1) study, (2) reflection, and (3) cultivation ([Fiordalis 2018](#); [Deroche 2019](#))” ([Deroche 2021](#)).
- ⁴ Other authors suggest a generally careful application of mindfulness exercises under a professional psychological guidance (e.g., [Germer et al. \[2005\] 2013](#)). But especially in regard to age-dependent needs of school students in their developmental stages

and the absence of psychological support in class rooms, Engler's approach of respecting the need for identity formation before introducing into other practices seems to be applicable.

Lawton and Gordon (2002), pp. 99–100: "Above all, the Enlightenment virtually destroyed for ever the idea that education was primarily concerned with memorising sacred texts, or indeed any other books. The Age of Reason demanded that education should be concerned with developing the powers of the mind to criticise the status quo and to think rationally. [...] Those responsible for planning national curricula are still trying to get the balance right between educating the intellect, moral education and educating the emotions."

The affective domain within the taxonomy of educational objectives (according to Krathwohl et al. 1964): A. Receiving (Attending): 1. Awareness, 2. Willingness to Receive, 3. Controlled or Selected Attention; B. Responding: 1. Acquiescence in Responding, 2. Willingness to Respond, 3. Satisfaction in Response; C. Valuing: 1. Acceptance of a Value, 2. Preference for a Value, 3. Commitment; D. Organization: 1. Conceptualization of a Value, 2. Organization of a Value System; E. Characterization by a Value or Value Complex: 1. Generalized Set, 2. Characterization.

German equivalent to "Conference of ministers of education and cultural affairs".

German for "Institute for quality development in education".

Also in other documents by the KMK, there are no more precise bibliography references than this. Backtracing the conceptional origins of the RA I–III, two possibilities seem to be plausible: 1. Due to the wide conceptual overlap the development of the RA I–III might have been influenced in some form by Bloom's Taxonomy of Educational Objectives (Bloom et al. 1956) or the revised version by Anderson and Krathwohl (2001). This hierarchical classification of cognitive abilities has been cited in the German-speaking field of curriculum studies in the context of teacher education with a similar trichotomy: "recognize and retrieve", "understand and analyze" and "evaluate and create" (Blömeke 2013). 2. Due to the connection to PISA 2000 that initiated an impulse for the development of educational standards in Germany, it's possible that the defined proficiency levels in terms of reading, mathematical and scientific literacy (that might be collectively expressed in the trichotomy "reproduction and retrieval", "connection and interpretation" and "reflection and insight", OECD 1999) might have had an influence on the development of the RA I–III.

English translation by Klieme et al. ([2004] 2007).

This refers to the subject-specific "nationwide exam performance requirements" (in German: "Einheitliche Prüfungsanforderungen (für die Abiturprüfungen)"), that has been provided for every school subject by the KMK (KMK 2007).

For Janet the concept of "Presentification" consists of a mental state that "requires attention, that is, the act of perceiving both external reality as well as thoughts and ideas" (Craparo et al. 2019, p. 33). This also included "the capacity to act in a fully focused and meaningful [i.e., psychologically healthy] way in the present, integrating one's past experiences and future plans" (Craparo et al. 2019, p. 133, note added by the author).

A similar correlation between the "way of cultivating receptive and non-interfering mindfulness" (that can be subsumed under the term of "bare attention" or "bare awareness") and "the potential of leading to awakening" is been attributed to historic forms of mindfulness (Anālayo 2018, p. 16).

In modern Western psychological step models, the cognitive development of students between 6 years and 11 years and in the age of early adulthood is described by concrete operational thinking, the orientation towards formal operational thinking and logical reasoning (Berk [1998] 2018, chp. 9, 11). The emotional and social developmental stages for these age groups are described in relation to first self-regulatory experiences and fragile attempts of identity formation (Berk [1998] 2018, chp. 10, 12).

At least for the color combination of green (=Safety), yellow (=Malfunction) and red (=Emergency), which is widely used in displays and in electric control panels (Lee and Hwang 2015), a common color interpretation can be assumed. The color blue seems to be intuitively associated with "water" or "sky" which in turn seems to be related to well-being (Lengen 2015).

Translated from German: "Konstatierendes Aufmerksames Wahrnehmen" (Wagner [2007] 2021). For a brief overview of the SAP's characteristics and the four basic SAP exercises, see Appendix B.

The mode and focus of attention on this level of "mindful wisdom" depend on the cultivated practice of mindfulness. In order to relate the exemplary conflict to a setting, in which the student has been trained in SAP (according to Wagner [2007] 2021), the focus of attention will be wide while holding a single focus set on a certain cognition.

This calls for an interpretation in order to distinguish it from approaches of historic determinism or ethnocentric and racist approaches in the field of educational science most widely developed in the period between 1894 and 1916 to reinforce "White supremacy through educational practices and policies in the United States and abroad" (Fallace 2012, p. 511).

The findings concerning the differing activations of neural networks during meditation (Tang and Posner 2015) could also explain the contradictory outcomes of the two publications from Kok and Singer (2017) and Schindler et al. (2019) that rest on evidences from mindfulness-based interventions in regard to the effects of mindfulness meditation practice on social bonding and empathy. The first paper refers to a 9-month-long intervention and reports significant evidences supporting the assumption mindfulness may enhance social connectedness (Kok and Singer 2017). The second paper reports evidences of reduced empathy referring to three of five intervention studies that "experimentally induced mindfulness via a short breathing exercise" for participants with

no or nearly no previous meditation experience (Schindler et al. 2019). In any case, the findings of Tang and Posner (2015) should be considered when it comes an evaluation of scientific evidences in the interdisciplinary field of mindfulness.

References

- Anālayo, Bhikkhu. 2018. The Bāhiya Instruction and Bare Awareness. *Indian International Journal of Buddhist Studies* 19: 1–19.
- Anālayo, Bhikkhu. 2019. Adding historical depth to definitions of mindfulness. *Current Opinion in Psychology* 28: 11–14. [CrossRef] [PubMed]
- Anderson, Lorin W., and David R. Krathwohl. 2001. *A Taxonomy for Learning, Teaching, and Assessing. A Revision of Bloom's Taxonomy of Educational Objects*. Edited by Peter W. Airasian, Kathleen A. Cruikshank, Richard E. Mayer, Paul R. Pintrich, James Rath and Merlin C. Wittrock. New York: Addison Wesley Longman.
- Bandura, Albert. 1977. Self-efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review* 84: 191–215. [CrossRef] [PubMed]
- Barrett, Lisa Feldman. 2017. *How Emotions Are Made*. Boston: Houghton Mifflin Harcourt.
- Benner, Dietrich. 2002. The structure of General Education in the Core Curriculum of Modern Educational Systems. A proposal for a framework for PISA based on educational theory. *Zeitschrift für Pädagogik* 48: 68–90. [CrossRef]
- Benthien, Ole. 2011. Stressreduktion im Leistungssport durch die pädagogisch-psychologische Methode der Introvision: Eine theoretische und empirische Untersuchung am Beispiel des Segelsports (Stress Reduction in Competitive Sports through the Educational Psychological Method of Introvision: A Theoretical and Empirical Survey Using the Example of Sailing). Ph.D. dissertation, University of Hamburg, Hamburg, Germany.
- Berk, Laura E. 2018. *Development through the Lifespan*. Hoboken: Pearson. First published 1998.
- Bishop, Scott R., Mark Lau, Shauna Shapiro, Linda Carlson, Nicole D. Anderson, James Carmody, Zindel V. Segal, Susan Abbey, Michael Specia, Drew Velting, and et al. 2004. Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice* 11: 230–41. [CrossRef]
- Blömeke, Sigrid. 2013. Einleitung: Professionelle Kompetenzen im Studienverlauf (Introduction: Professional Competencies during the Course of Study). In *Professionelle Kompetenzen im Studienverlauf. Weitere Ergebnisse zur Deutsch-, Englisch- und Mathematiklehrausbildung aus TEDS-LT (Further Results Regarding the Teacher Training for German, English and Mathematics from the TEDS-LT)*. Edited by Sigrid Blömeke, Albert Bremerich-Vos, Gabriele Kaiser, Günter Nold, Helga Haudeck, Jörg-U. Keffler and Knut Schwippert. Münster: Waxmann.
- Bloom, Benjamin S., Max D. Engelhart, Edward J. Furst, Walker H. Hill, and David R. Krathwohl. 1956. *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain*. London: David McKay.
- Bodhi, Bhikkhu. 2013. What does Mindfulness really mean? A canonical perspective. In *Mindfulness: Diverse Perspectives on Its Meaning, Origins and Applications*. Edited by J. Mark G. Williams and Jon Kabat-Zinn. New York: Routledge, pp. 19–39.
- Brown, Candy G. 2016. Can “Secular” Mindfulness Be Separated from Religion? In *Handbook of Mindfulness: Culture, Context, and Social Engagement, Mindfulness in Behavioral Health*. Edited by Ronald E. Purser, David Forbes and Adam Burke. Cham: Springer International Publishing, pp. 75–94.
- Brown, Candy G. 2017. Ethics, Transparency, and Diversity in Mindfulness Programs. In *Practitioner's Guide to Ethics and Mindfulness-Based Interventions*. Edited by Lynette M. Monteiro, Jane F. Compson and Frank Musten. Cham: Springer, pp. 45–85. [CrossRef]
- Brown, Kirk W., J. David Creswell, and Richard M. Ryan. 2015a. *Handbook of Mindfulness: Theory, Research and Practice*. New York: Guilford Press.
- Brown, Kirk W., J. David Creswell, and Richard M. Ryan. 2015b. Introduction: The evolution of Mindfulness science. In *Handbook of Mindfulness: Theory, Research, and Practice*. Edited by Kirk W. Brown, J. David Creswell and Richard M. Ryan. New York: Guilford Press, pp. 1–8.
- Buth, Britta. 2011. Training der Konstatierenden Aufmerksamen Wahrnehmung und Reduktion von Stress durch Introvision bei Tinnitus (Training of the Stated Attentive Perception and Stress Reduction through Introvision as a Treatment for Tinnitus). Ph.D. dissertation, University of Hamburg, Hamburg, Germany.
- CMEC. 1997. Common Framework of Science Learning Outcomes K to 12. Pan-Canadian Protocol for Collaboration on School Curriculum. Toronto: Council of Ministers of Education. Available online: <https://archive.org/details/commonframework00coun/page/n1/mode/2up> (accessed on 29 December 2021).
- Crane, Rebecca S., Judson Brewer, Christina Feldman, Jon Kabat-Zinn, Saki Santorelli, J. Mark G. Williams, and Willem Kuyken. 2017. What defines mindfulness-based programs? The warp and the weft. *Psychological Medicine* 47: 990–99. [CrossRef]
- Craparo, Giuseppe, Francesca Ortu, and Onno van der Hart. 2019. Rediscovering Pierre Janet. In *Trauma, Dissociation, and a New Context for Psychoanalysis*. London: Routledge.
- Deroche, Marc-Henri. 2019. Buddhist philosophy as a way of life: Perspectives on the three wisdoms from Tibet and Japan. In *Reasons and Lives in Buddhist Traditions. Studies in Honor of Matthew Kapstein*. Edited by Cecile Ducher, Pierre-Julien Harter and Dan Arnold. Boston: Wisdom Publications, pp. 277–90.
- Deroche, Marc-Henri. 2021. Mindful wisdom: The path integrating memory, judgment, and attention. *Asian Philosophy* 31: 19–32. [CrossRef]
- Ditrich, Tamara, Royce Wiles, and Bill Lovegrove. 2017. *Mindfulness and Education: Research and Practice*. Newcastle upon Tyne: Cambridge Scholars Publishing.

- Dorjee, Dusana. 2010. Kinds and Dimensions of Mindfulness: Why it is Important to Distinguish Them. *Mindfulness* 1: 152–60. [CrossRef]
- Dreyfus, Georges. 2013. Is mindfulness present-centered and non-judgmental? A discussion of the cognitive dimensions of mindfulness. In *Mindfulness: Diverse Perspectives on its Meaning, Origins and Applications*. Edited by J. Mark G. Williams and Jon Kabat-Zinn. New York: Routledge, pp. 41–54.
- Engler, Jack. 1984. Therapeutic aims in psychotherapy and meditation: Developmental stages in the representation of self. *The Journal of Transpersonal Psychology* 16: 25–61.
- Ergas, Oren, and Linor L. Hadar. 2019. Mindfulness in and as education: A map of a developing academic discourse from 2002 to 2017. *Review of Education* 7: 757–97. [CrossRef]
- European Parliament and Council. 2006. Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006/962/EC). *Official Journal of the European Union* L394 46: 10–18. Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006H0962> (accessed on 2 September 2021).
- European Parliament and Council. 2018. Recommendation of the European Parliament and of the Council of 22 May 2018 on key competences for lifelong learning (2018/C 189/01). *Official Journal of the European Union* 189: 1–13. Available online: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604(01)) (accessed on 10 October 2021).
- Fallace, Thomas. 2012. Recapitulation Theory and the New Education: Race, Culture, Imperialism, and Pedagogy, 1894–1916. *Curriculum Inquiry* 42: 510–33. [CrossRef]
- Feldman, Christina, and Willam Kuyken. 2019. *Mindfulness: Ancient Wisdom Meets Modern Psychology*. New York: Guilford Press.
- Fiordalis, David V. 2018. Learning, reasoning, cultivating: The practice of wisdom in the Treasury of Abhidharma. In *Buddhist Spiritual Practices. Thinking with Pierre Hadot on Buddhism, Philosophy, and the Path*. Edited by David V. Fiordalis. Berkeley: Mangalam Press, pp. 245–89.
- Germer, Christopher K., Ronald D. Siegel, and Paul R. Fulton, eds. 2013. *Mindfulness and Psychotherapy*. New York: The Guilford Press. First published 2005.
- Gethin, Rupert. 2015. Buddhist conceptualizations of mindfulness. In *Handbook of Mindfulness: Theory, Research, and Practice*. Edited by Kirk W. Brown, J. David Creswell and Richard M. Ryan. New York: Guilford Press, pp. 9–41.
- Gollwitzer, Peter M. 1999. Implementation Intentions. Strong Effects of Simple Plans. *The American Psychologist* 54: 493–503. [CrossRef]
- Herwig, Uwe, Tina Kaffenberger, Lutz Jäncke, and Annette B. Brühl. 2010. Self-related awareness and emotion regulation. *NeuroImage* 50: 734–41. [CrossRef]
- Iwers-Stelljes, Telse A., Kai-Christian Koch, Günter Krauthausen, Sonja Löser, Marianne Nolte, and Angelika C. Wagner. 2014. Introvision zur Reduktion von Mathematikangst bei Lehramtsstudierenden. *Lernen und Lernstörungen* 3: 7–21. [CrossRef]
- Jaeggi, Rahel. 2016. *Entfremdung. Zur Aktualität eines sozialphilosophischen Problems. Mit einem neuen Nachwort (Alienation. On the Topicality of a Socio-Philosophical Problem. With a New Afterword)*. Berlin: Suhrkamp.
- Jha, Amishi P., Alexandra B. Morrison, Justin Dainer-Best, Suzanne Parker, Nina Rostrup, and Elizabeth A. Stanley. 2015. Minds “At Attention”: Mindfulness Training Curbs Attentional Lapses in Military Cohorts. *PLoS ONE* 10: e0116889. [CrossRef]
- Kabat-Zinn, Jon. 1994. *Wherever You Go, There You Are*. New York: Hyperion.
- Klebanova, Kamala. forthcoming. Introvisions-Training zur Stressreduktion in Prüfungssituationen und Verbesserung des deklarativen Gedächtnisses: Eine empirische kontrollierte Interventionsstudie mit Hamburger OberstufenschülerInnen (Training in Introvision to Reduce Social Stress and Enhance Declarative Memory. A Quasi-experimental Intervention Trial with High-School Students in Hamburg). Ph.D. dissertation, University of Hamburg, Hamburg, Germany.
- Klieme, Eckhard, Hermann Avenarius, Werner Blum, Peter Döbrich, Hans Gruber, Manfred Prenzel, Kristina Reiss, Kurt Riquarts, Jürgen Rost, Heinz-Elmar Tenorth, and et al. 2007. *The Development of National Educational Standards: An Expertise*. Berlin: Federal Ministry of Education and Research (BMBF). First published 2004.
- KMK. 2005a. *Einheitliche Prüfungsanforderungen in der Abiturprüfung. Geographie (Uniform Examination Requirements. Geography)*. Beschluss der Kultusministerkonferenz vom 01.12.1989 i. d. F. vom 10.02.2005. Available online: https://www.kmk.org/fileadmin/Dateien/veroeffentlichungen_beschluesse/1989/1989_12_01-EPA-Geographie.pdf (accessed on 17 August 2021).
- KMK. 2005b. *Veröffentlichungen der Kultusministerkonferenz. Bildungsstandards der Kultusministerkonferenz: Erläuterungen zur Konzeption und Entwicklung. Herausgegeben vom Sekretariat der Ständigen Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland (Publications of the Conference of Ministers of Education. Educational standards of the Conference of Ministers of Education. Comments on Conception and Development)*. Edited by the Secretary of the Conference of Ministers of Education of the Federal Republic of Germany. München: Wolters Kluwer Deutschl and GmbH. Available online: https://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2004/2004_12_16-Bildungsstandards-Konzeption-Entwicklung.pdf (accessed on 6 August 2021).
- KMK. 2006. *Einheitliche Prüfungsanforderungen in der Abiturprüfung. Darstellendes Spiel (Uniform Examination Requirements. Performing Arts)*. Beschluss der Kultusministerkonferenz vom 16.11.2006. Available online: https://www.kmk.org/fileadmin/Dateien/veroeffentlichungen_beschluesse/2006/2006_11_16-EPA-darstellendes-Spiel.pdf (accessed on 16 August 2021).
- KMK. 2007. Liste über Verabschiedung und Inkrafttreten der einzelnen EPA (List of Adoption and Entry into Force of the Subject-Specific Uniform Examination Requirements) (Status: 10.05.2007). Available online: https://www.kmk.org/fileadmin/Dateien/veroeffentlichungen_beschluesse/2007/2007_05_10-Liste-EPA.pdf (accessed on 5 August 2021).

- KMK. 2012. *Bildungsstandards im Fach Mathematik für die Allgemeine Hochschulreife. Beschluss der Kultusministerkonferenz vom 18.10.2012* (Educational Standards in the Subject of Mathematics for the General University Entrance Qualification. Decision of the Conference of Ministers of Education from 18.10.2012). Berlin: Institut für Qualitätsentwicklung im Bildungswesen. Available online: https://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2012/2012_10_18-Bildungsstandards-Mathe-Abi.pdf (accessed on 29 September 2021).
- Knauth, Thorsten, and Carola Roloff. 2021. Achtsamkeit und dialogisches religionsbezogenes Lernen. Konzeptionelle Überlegungen und Schlussfolgerungen für die praktische interreligiöse Zusammenarbeit (Mindfulness and Dialogical Religion-Related Learning. Conceptional Considerations and Conclusions for the Practice of Interfaith Cooperation). In *Achtsamkeit in Bildungsprozessen. Professionalisierung und Praxis* (Mindfulness in Educational Processes. Professionalization and Practice). Edited by Telse A. Iwers and Carola Roloff. Wiesbaden: Springer, pp. 11–28.
- Kok, Bethany E., and Tania Singer. 2017. Effects of Contemplative Dyads on Engagement and Perceived Social Connectedness Over 9 Months of Mental Training. A Randomized Clinical Trial. *JAMA Psychiatry* 74: 126–34. [CrossRef] [PubMed]
- Krathwohl, David R., Benjamin S. Bloom, and Bertram B. Masia. 1964. *Taxonomy of Educational Objectives, Handbook II: The Affective Domain*. New York: David McKay.
- Kuan, Tse-Fu. 2008. *Mindfulness in Early Buddhism. New Approaches through Psychology and Textual Analysis of Pali, Chinese and Sanskrit Sources*. New York: Routledge.
- Lawton, Denis, and Peter Gordon. 2002. *A History of Western Educational Ideas*. London: Woburn Press.
- Lazarus, Richard S., and Susan Folkman. 1984. *Stress, Appraisal, and Coping*. New York: Springer.
- Lee, Inseok, and Won-Gue Hwang. 2015. Effects of personal experiences on the interpretation of the meaning of colours used in the displays and controls in electric control panels. *Ergonomics* 58: 1974–82. [CrossRef]
- Lengen, Charis. 2015. The effects of colours, shapes and boundaries of landscapes on perception, emotion and mentalising processes promoting health and well-being. *Health & Place* 35: 166–77. [CrossRef]
- Lindsay, Emily K., and J. David Creswell. 2017. Mechanisms of mindfulness training: Monitor and Acceptance Theory (MAT). *Clinical Psychology Review* 51: 48–59. [CrossRef]
- Lutz, Antoine, Heleen A. Slagter, John D. Dunne, and Richard J. Davidson. 2008. Attention regulation and monitoring in meditation. *Trends in Cognitive Sciences* 12: 163–69. [CrossRef] [PubMed]
- McMahan, David L. 2008. *The Making of Buddhist Modernism*. Oxford: Oxford University Press.
- Möller, Anna. 2008. Die Auflösung von Schreibblockaden durch Introvision: Ergebnisse einer Pilotstudie (Resolution of Writer's Blocks through Introvision: Results of a Pilot Study). *Gruppe. Interaktion. Organisation. Zeitschrift für Angewandte Organisationspsychologie (GIO)* 39: 199–211. [CrossRef]
- Müller-Braunschweig, Hans, and Niklas Stiller. 2010. *Körperorientierte Psychotherapie. Methoden—Anwendungen—Grundlagen* (Body Oriented Psychotherapy. Methods—Applications—Basics). Heidelberg: Springer.
- OECD. 1999. *Measuring Student Knowledge and Skills: A New Framework for Assessment*. Paris: OECD Publishing. Available online: <https://www.oecd.org/education/school/programme-for-international-student-assessment-pisa/33693997.pdf> (accessed on 5 August 2021).
- OECD. 2019a. *PISA 2018 Assessment and Analytical Framework*. PISA. Paris: OECD Publishing. Available online: <https://www.oecd-ilibrary.org/docserver/b25efab8-en.pdf?expires=1640842574&id=id&accname=guest&checksum=60AE67DE3D1EB2FB155EAC0C5BF11B97> (accessed on 6 August 2021).
- OECD. 2019b. *Teaching and Learning Transformative Engagement*. Paris: OECD Publishing. Available online: <https://bankimooncentre.org/wp-content/uploads/2019/07/Teaching-Learning-Transformative-Engagement.pdf> (accessed on 10 October 2021).
- Pereira Guedes, Nicole. 2011. Dauerhafte Auflösung chronischer Nackenverspannungen durch Introvision. Eine empirische Untersuchung einer pädagogisch-psychologischen Intervention zur mentalen Selbstregulation (Permanent Resolution of Chronic Neck Pain through Introvision. An Empirical Survey of a Educational Psychological Intervention of Mental Self-Regulation). Ph.D. dissertation, University of Hamburg, Hamburg, Germany.
- Petranker, Jack. 2016. The Mindful Self in Space and Time. In *Handbook of Mindfulness: Culture, Context, and Social Engagement, Mindfulness in Behavioral Health*. Edited by Ronald E. Purser, David Forbes and Adam Burke. Cham: Springer International Publishing, pp. 95–106.
- Purser, Ronald E., David Forbes, and Adam Burke. 2016. *Handbook of Mindfulness. Culture, Context, and Social Engagement*. New York: Springer.
- Rahmani, Masoumeh. 2021. Secular discourse as a legitimating strategy for mindfulness meditation. In *Routledge Handbook of Yoga and Meditation Studies*. Edited by Suzanne Newcombe and Karen O'Brien-Kop. New York: Routledge, pp. 255–70.
- Roeser, Richard W. 2016. Processes of Teaching, Learning, and Transfer in Mindfulness-Based Interventions (MBIs) for Teachers: A Contemplative Educational Perspective. In *Handbook of Mindfulness in Education*. Edited by Kimberly A. Schonert-Reichl and Richard W. Roeser. New York: Springer, pp. 149–170. [CrossRef]
- Rosa, Hartmut. 2012. *Weltbeziehungen im Zeitalter der Beschleunigung. Umriss einer neuen Gesellschaftskritik* (World Relations in the Age of Acceleration. Outlines of a New Social Criticism). Frankfurt am Main: Suhrkamp.
- Ryan, Richard M., and C. Scott Rigby. 2015. Did the Buddha Have a self? No-self, self, and Mindfulness in Buddhist Thought and Western Psychologies. In *Handbook of Mindfulness: Theory, Research, and Practice*. Edited by Kirk W. Brown, J. David Creswell and Richard M. Ryan. New York: Guilford Press, pp. 245–65.

- Ryan, Richard M., Julius Kuhl, and Edward L. Deci. 1997. Nature and autonomy: An organizational view of social and neurobiological aspects of self-regulation in behavior and development. *Development and Psychopathology* 9: 701–28. [CrossRef] [PubMed]
- Schindler, Simon, Stefan Pfattheicher, and Marc-André Reinhard. 2019. Potential negative consequences of mindfulness in the moral domain. *European Journal of Social Psychology* 49: 1055–69. [CrossRef]
- Schonert-Reichl, Kimberly A., and Robert W. Roeser. 2016. *Handbook of Mindfulness in Education: Integrating Theory and Research Into Practice*. New York: Springer.
- Sharf, Robert H. 2015. Is mindfulness Buddhist? (and why it matters). *Transcultural Psychiatry* 52: 470–84. [CrossRef] [PubMed]
- Sternberg, Robert J. 2000. Images of Mindfulness. *Journal of Social Issues* 56: 11–26. [CrossRef]
- Tang, Yi-Yuan, and Michael I. Posner. 2015. Mindfulness in the Context of the attention system. In *Handbook of Mindfulness: Theory, Research, and Practice*. Edited by Kirk W. Brown, J. David Creswell and Richard M. Ryan. New York: Guilford Press, pp. 81–89.
- Tröhler, Daniel. 2019. Bildungsstandards oder die Neudefinition von Schule (Educational Standards or the Redefinition of Education). In *Bildungsstandards zwischen Politik und schulischem Alltag (Educational Standards between Politics and Everyday School Life)*. Edited by Julia Zuber, Herbert Altrichter and Martin Heinrich. Wiesbaden: Springer, pp. 3–24.
- Underwood, Benton J. 1957. Interference and forgetting. *Psychological Review* 64: 49–60. [CrossRef]
- UNESCO. 2013. *Global Citizenship Education: An Emerging Perspective*. Paris: UNESCO's Division of Education for Peace and Sustainable Development. Available online: <https://www.gcedclearinghouse.org/sites/default/files/resources/%5BENG%5D%20Outcome%20document%20of%20the%20technical%20consultation%20on%20global%20citizenship%20education.pdf> (accessed on 3 September 2021).
- United Nations. 2015. Transforming our World: The 2030 Agenda for Sustainable Development. Available online: <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (accessed on 3 September 2021).
- Vago, David R., and David A. Silbersweig. 2013. Self-awareness, self-regulation, and self-transcendence (S-ART): A framework for understanding the neurobiological mechanisms of mindfulness. *Frontiers in Human Neuroscience* 6: 1–30. [CrossRef] [PubMed]
- Wagner, Angelika C. 2021. *Gelassenheit durch Auflösung innerer Konflikte. Mentale Selbstregulation und Introvision (Serenity through Resolution of Inner Conflicts. Mental Self-Regulation and Introvision)*. Stuttgart: Kohlhammer Verlag. First published 2007.
- Wagner, Angelika C., Monika Barz, Susanne Maier-Störmer, Ingrid Uttendorfer-Marek, and Renate Weidle, eds. 1984. *Bewusstseinskonflikte im Schulalltag. Denk-Knoten bei Lehrern und Schülern Erkennen und Lösen (Conflicts of Consciousness in Everyday School Life. Detecting and Resolving Teacher's and Student's Thinking Knots)*. Weinheim: Beltz.
- Wagner, Angelika C., Renate Kosuch, and Telse A. Iwers-Stelljes. 2016. *Introvision—Problemen Gelassen ins Auge schauen. Eine Einführung (Introvision—Face Problems Calmly. An Introduction)*. Stuttgart: Kohlhammer Verlag.
- Walsh, Zack. 2016. A Meta-Critique of Mindfulness Critiques: From McMindfulness to Critical Mindfulness. In *Handbook of Mindfulness: Culture, Context, and Social Engagement, Mindfulness in Behavioral Health*. Edited by Ronald E. Purser, David Forbes and Adam Burke. Cham: Springer International Publishing, pp. 153–66.
- Waterman, Alan S. 2005. When Effort Is Enjoyed: Two Studies of Intrinsic Motivation for Personally Salient Activities. *Motivation and Emotion* 29: 165–88. [CrossRef]
- Weinert, Franz E. 2014. Vergleichende Leistungsmessung in Schulen—Eine umstrittene Selbstverständlichkeit. In *Leistungsmessungen in Schulen (Comparative Achievement Evaluation in Schools—A Controversial Matter of Course. In Achievement Evaluation in Schools)*. Edited by Franz E. Weinert. Weinheim: Beltz Verlag, pp. 17–31. First published 2001.
- Williams, J. Mark G., and Jon Kabat-Zinn. 2013. *Mindfulness: Diverse Perspectives on Its Meaning, Origins and Applications*. New York: Routledge.
- Zenner, Charlotte, Solveig Herrnleben-Kurz, and Harald Walach. 2014. Mindfulness-based interventions in schools—A systematic review and meta-analysis. *Frontiers in Psychology* 5: 1–20. [CrossRef] [PubMed]
- Zirfas, Jörg. 2018. *Einführung in die Erziehungswissenschaft (Introduction into Educational Studies)*. Paderborn: UTB Ferdinand Schöningh Verlag.
- Zuber, Julia, Herbert Altrichter, and Martin Heinrich. 2019. *Bildungsstandards Zwischen Politik und Schulischem Alltag (Educational Standards between Politics and Everyday School Life)*. Wiesbaden: Springer.