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What is Wisdom and Can it be Taught?

Philosophical, Psychological, and Pedagogical Perspectives

EDITED BY
EEVA K. KALLIO AND PÄIVI TYNJÄLÄ

What is Wisdom and Can it be Taught?

What is Wisdom and Can it be Taught? uses careful theoretical analysis and a well-argued ontological conception of the human being to present a new 'Holistic Wisdom Model', summarizing existing research and presenting fresh insights.

Human wisdom is a complex phenomenon. Psychological research in this area has led to a wide range of fragmentary claims and models, and therefore, there is a need for theoretical clarification of the field: What is wisdom? How should we study it in the first place? Is it a purely psychological phenomenon, or do we also need philosophy? This book examines these questions, as well as provides a pedagogical review of wisdom to evaluate how people become wise(r) and whether wisdom can be taught. Drawing on findings from a range of educational fields, it shows the crucial features of wisdom-enhancing pedagogies we already know, which are summarized in a 'Teaching for Wisdom Model'.

Written by leading, interdisciplinary scholars, this book illuminates the study of wisdom for researchers, academics, teachers, and students of psychology, philosophy, and education.

Eeva K. Kallio is Associate Adjunct Professor at the Finnish Institute for Educational Research, the University of Jyväskylä, Finland, and the University of Tampere, Finland. She is Honorary President of ESRAD (European Society for Research in Adult Development). She leads the Wisdom and Learning team at the Institute for Educational Research, the University of Jyväskylä. She is currently involved in the project 'Wisdom in Practice' funded by the Research Council of Finland (2022–2026) and is the leader of its work package 'Psychological foundations of research on wisdom'.

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We have been lucky to work in an inspiring and supportive research environment, and for this, we extend our thanks to all our colleagues at the Finnish Institute for Educational Research of the University of Jyväskylä, Finland. Together, the staff members of the institute form a working community of which it is a pleasure to be a part. During the research and writing process, we have often needed all manner of technical assistance and, for that, we want to thank Ms Minna Jokinen and Mr Martti Minkkinen for their skilful work. Special thanks also go to Ms Anna-Maija Tuuliainen for her important contribution in past years in initiating the whole discussion on adult development and wisdom.

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Jyväskylä, Finland, 15 December 2024
Eeva K. Kallio
Päivi Tynjälä

Advances in theoretical and philosophical psychology

Series Foreword
Brent D. Slife, Series Editor

Psychologists need to face the facts. Their commitment to empiricism for answering disciplinary questions does not prevent pivotal questions from arising that cannot be evaluated exclusively through empirical methods, hence the title of this series: *Advances in Theoretical and Philosophical Psychology*. For example, moral questions such as 'What is the nature of a good life?' are crucial to psychotherapists but are not answerable through empirical methods alone. And what of these methods? Many have worried that our current psychological means of investigation are not adequate for fully understanding the person (e.g., Gantt & Williams, 2018; Schiff, 2019). How do we address this concern through empirical methods without running headlong into the dilemma of methods investigating themselves? Such questions are in some sense philosophical, to be sure, but the discipline of psychology cannot advance even its own empirical agenda without addressing questions like these in defensible ways.

How then should the discipline of psychology deal with such distinctly theoretical and philosophical questions? We could leave the answers exclusively to professional philosophers, but this option would mean that the conceptual foundations of the discipline, including the conceptual framework of empiricism itself, are left to scholars who are *outside* the discipline. As undoubtedly helpful as philosophers are and will be, this situation would mean that the people doing the actual psychological work, psychologists themselves, are divorced from the people who formulate and re-formulate the conceptual foundations of that work. This division of labour would not seem to serve the long-term viability of the discipline.

Instead, the founders of psychology—scholars such as Wundt, Freud, and James—recognized the importance of psychologists in formulating their own foundations. These parents of psychology not only did their own theorizing, in cooperation with many other disciplines; they also realized the significance of psychologists continuously *re*-examining these theories and philosophies.

This re-examination process allowed for the people most directly involved in and knowledgeable about the discipline to be the ones to decide *what* changes were needed and *how* such changes would best be implemented. This book series is dedicated to that task, the examining and re-examining of psychology's foundations.

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Schiff, B. (2019). *Situating qualitative methods in psychological science*. Routledge.

1 Introduction

'Nulli sapere casu obtigit' 'No (wo)man was ever wise by chance.'
–Seneca the Younger, Epistolæ ad Lucilium, LXXVI

Wisdom has been examined and pursued since pre-modern times as a religious, spiritual, esoteric, cultural, and philosophical concept (Assmann, 1994) and, lately, as a focus of extensive psychological theorizing (Sternberg & Glück, 2019). Different cultures have tended to produce a 'store of wisdom', pearls of knowledge and experience that they have sought to preserve as lessons for future generations. Often, this knowledge created by experience has been condensed into proverbs, maxims, aphorisms or sayings, so-called folk wisdom, as well as collections of writings, which have been passed on as an oral or written legacy to those who come after.

The word 'wisdom' has different connotations and meanings in different languages. For example, in Finnish, the term *viisaus*, close to the Swedish *vis, visdom* or *vishet* (adj. and subst.; traced from Dutch *wijsheit*; German *Weisheit*), has one or more of the following cognitive characteristics: rationality, understanding, in-depth knowledge, or a wise saying or idea (Kielitoimiston sanakirja, n.d.). In Swedish, wisdom similarly refers to cognition and deep life experience, profound insight, and the ability to put these into practice in a certain field. This resembles the definition of wisdom by the Cambridge Dictionary, which explains wisdom as the 'Ability to use your knowledge and experience to make good decisions and judgements'. According to Takahashi and Bordia (2000), there seems to be a general difference between Western (American and Australian) and Eastern (Indian and Japanese) cultural definitions of wisdom, with Westerners understanding wise persons as being 'experienced' and 'knowledgeable', whereas Easterners use the attribute 'discreet' to describe wise people. Similarly, Wang et al. (2022) suggest that the concept of wisdom is closely connected to the dominantly accepted worldview: in the post-Enlightenment West, wisdom has been associated with knowledge and analytical intelligence, while in China it refers more to the integration of knowledge and virtue, alongside a holistic-intuitive

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understanding of reality. However, Rudney et al. (2024), who studied folk conceptions of wisdom across 16 culturally diverse samples from 12 countries, found a similarity of conceptions across cultural regions. Certain similarities have also been found in geographically close cultures and religions, as in the Abrahamic religions and Hellenic Greece (e.g., humility as a virtue both in Christianity and 'Socratic' philosophy; see Assmann, 1994; Dietrich, 2018).

In the field of psychological wisdom research, Staudinger (2013) proposed the concepts of *personal* and *general* wisdom; the former referring to experience-based inner wisdom capacities, the latter referring to 'general' insights about life and other people. Glück and Weststrate (2022) and Staudinger (2013) have further pointed out that personal wisdom and general wisdom are not separate entities. Glück and Weststrate (2022, p. 347) define them as '…general wisdom (wisdom about life and people) and personal wisdom (wisdom about oneself and one's own life)'. The two can be differentiated for analytical purposes, but in human action, they often fuse into each other. It may further be the case that one is more dominant: being strong in both is likely rare (Staudinger, 2013).

The history of empirical studies of wisdom can be traced back to post-Piagetian theories of developmentally high-level thinking and to humanistic psychologists such as Erikson, Jung, and Maslow (Kallio, 2015). Studies of the cognitive development of adults gave rise to the term 'postformal thinking', in which new advances in adulthood as a multi-perspective form of thinking were assumed. Later, postformal thinking was integrated into wisdom models (e.g., Baltes & Staudinger, 2000), and links to models of advanced psychological growth have also been suggested by humanistic psychology and, more recently, by positive psychology (Peterson & Seligman, 2004).

As Kutor et al. (2021) elegantly state, wisdom is a 'wicked' concept to study. Wisdom is particularly important in difficult and ill-defined problem-solving situations where possible solutions are complex and not directly discernible. As Glück and Weststrate (2022) claim, wisdom manifests itself in important, difficult, uncertain, and challenging situations. These situations include severe or even unsolvable problems and dealing with difficult daily dilemmas such as challenging relationships, divorce, death of a loved one, or crises at work. These problems cannot be solved based on purely logical reasoning. Such situations involve considerable uncertainty about the possible short- and long-term effects of the solution – they involve risks that are difficult to predict. Wisdom can also be claimed to be manifested in grappling with existential problems (Staudinger & Glück, 2011), underscoring the view that wisdom is not only practical but also a theoretical and life-philosophical phenomenon.

The purpose of this book is twofold. First, based on a critical review, we aimed to summarize and clarify the wide area of wisdom research by examining earlier published wisdom models and developing a holistic

metamodel. Thus, Part I of the book aims to answer the question of what wisdom is, or at least, what are its prerequisites and conditions according to scholars. Second, we expanded the literature review to cover pedagogically oriented studies to tackle our second core question: Can wisdom be taught? Part II thus focuses on pedagogical practices that may contribute to the development of attributes related to wisdom in the context of formal education.

In part I, our assessment of the identified major models of wisdom is based on the pursuit of a holistic understanding of the human being, which is a focal philosophical premise underlying our approach to wisdom. We start by explicating the philosophical premises of our study and addressing some of the difficulties and confusions resulting from the diversity of current research. The conception of the human being by Finnish psychologist and philosopher Lauri Rauhala (1993, 2005) was chosen as a starting point because it offers a well-justified holistic account of how a human being exists in the world and what possibilities for ideal behaviour and action are open to them. The wisdom models and metamodels identified were assessed and reflected on against Rauhala to determine whether components of his conception of the human being can be found in them and, if so, in what ways they are described or understood.

Wisdom models exist in considerable numbers, and new models are constantly being proposed (see, e.g., Stevens-Long & Kallio, 2025). It is therefore impossible to include all possible models to create a single new metamodel, and it is necessary to narrow the focus. Attempts have been made, for example, to analyse the models from specific angles of view such as individual, situational, and interactional perspectives (or their combination) (Sternberg, 2019; Sternberg & Karami, 2021a, 2021b) and, lately, from a philosophical point of view (Sternberg, 2024).

There are also close connections between wisdom research and character and virtue research (e.g., Kristjánsson & Fowers, 2024). However, although wisdom is seen as a human ideal (Swartwood & Tiberius, 2019), no comprehensive analysis has been done so far regarding this aspect as integrated with wisdom theory building. Such an analysis was therefore at the core of our wisdom model development.

Wisdom is also seen as something that may develop during an individual's lifespan, yet it is not clearly known how it can be enhanced or what factors impact its development. Most pedagogical studies in this area have been theoretical or philosophical in nature (e.g., Jakubik, 2020, 2023; Kristjánsson, 2021, 2024), and empirical research is only just emerging (e.g., Ardelt, 2020; Bruya & Ardelt, 2018; Sharma & Lal Dewangan, 2017; Shrader & Muschalla, 2022). However, the field of educational psychological research offers an extensive knowledge base for the teaching and learning of cognitive and socio-emotional skills and also ethical and moral behaviour – domains that are often associated with wisdom. Therefore, in Part II of the book we

examine, based on both education-oriented psychological research and more general wisdom research literature, what kinds of pedagogical practices might contribute to the development of features related to wisdom.

Traditionally, in wisdom research, rich life experience is often considered to be an important, if not the most important, resource for the development of wisdom. Wisdom theorists widely share the understanding that wisdom is an experiential and evolving attribute (Jeste et al., 2010) requiring, directly or indirectly, encountering fundamental questions of human existence in order to develop (Glück & Bluck, 2013). Baltes and Smith (2008) referred to our sense of mortality, balancing our own and others' needs, and social problems, even on a global scale, as the 'fundamental pragmatics of life'. Empirical research, indeed, suggests that life experiences such as close relationships in family and work, disagreements, serious illness, facing death, religious experiences, and reading wisdom literature often contribute to the cumulation of wisdom (Baltes & Smith, 2008; Chen et al., 2011; Ferrari et al., 2013; Sternberg & Glück, 2021; Weststrate et al., 2018).

Facing challenging life crises has been regarded as increasing the potential for lifelong growth, which has been shown to contribute to the development of wisdom (Tedeschi & Calhoun, 2004; Webster & Deng, 2015; Weststrate, 2019). Such learning, though, is not self-evident; negative life experiences may also lead to cynicism and embitterment (Linden et al., 2008, 2011). In addition, besides negative experiences, challenging positive experiences have also been identified as conducive to the development of wisdom. Glück and Bluck (2013) and Glück et al. (2019) have argued that wisdom-enhancing experiences have in common that they change a person's perception of life by opening up new perspectives (see also Sternberg & Glück, 2021). Yang (2017) and Bassett (2006, 2012) have described wisdom from life experiences as a spiral process, whereby there is no single turning point promoting wisdom. Rather, the development is seen as continuous and transformative. Thus, wisdom seems to be shaped by the interplay of individuals and their unique environment; that is, people's individual paths are different, and there seems to exist more than one way to acquire wisdom.

Wisdom research has paid special attention to the role of reflection and social interaction in the development of wisdom. Weststrate and Glück (2017) note that the way individuals reflect on their experiences is essential to the development of wisdom. Moreover, reflecting on difficult life situations seems to bring about meaning-making and personal growth (see also Sternberg & Glück, 2021). Difficulties alone, therefore, may not be sufficient to promote wisdom – self-reflective abilities are also required (Weststrate & Glück, 2017; Weststrate et al., 2018). Reflection per se is a broad concept, and in wisdom studies, it is used in at least two senses: as reflective thinking (e.g., relational, multi-perspective and integrative thinking) or as self-reflection, the process of introspection leading to a better understanding of one's life experiences. The exact relationship between wisdom and self-reflection is a challenging task to

empirically examine. Self-reflection may be a prerequisite for wisdom, but it may also result from increased wisdom. It is also possible that self-reflection and wisdom develop in parallel (Weststrate, 2019).

Reflection is also a key component in Webster's (2007) and Ardelt's (2003, 2004) definitions of wisdom, as well as in laypeople's perceptions (Bluck & Glück, 2005). Similarly, in their integrative polyhedron model, Karami et al. (2020) emphasize the role of self-reflection in wisdom, linking it with self-regulation. These processes together help people adapt and control their behaviour to respond to contextual changes in their lives. This is also in alignment with the emotion regulation component of the wisdom model of Glück and Bluck (2013).

Despite the fact that wisdom has typically been studied in psychology as a characteristic of the individual, social interaction has been considered important in the development of wisdom. In his review of wisdom literature, Grossmann (2017a) advanced a constructivist model of wise thinking that emphasizes the role of interaction between the individual and their environment. Empirical studies have confirmed that interaction with peers, mentors, prominent colleagues, or other trusted people (Bontemps-Hommen et al., 2020; Chen et al., 2011; König & Glück, 2012; Parisi et al., 2009; Weststrate et al., 2018), as well as learning from wise people (Glück & Bluck, 2011), all promote wisdom. Family relationships (Chen et al., 2011), the role of spiritual teachers, and support from friends and communities (Levitt, 1999) have also proved to be important. Igarashi, Levenson, and Aldwin (2018) found that, in the face of adversity, the social environment plays a key role in creating new perspectives and personal meaning.

Altogether, it can be concluded that deep self-reflection and social interaction are widely considered to be key elements in the development of wisdom (Staudinger, 2008; Staudinger et al., 1997; Sternberg & Glück, 2021; Weststrate et al., 2018). These activities are also important in learning processes within educational settings. However, research on the potential of formal education to contribute to the development of wisdom has been sparse. In her systematic literature review, Jakubik (2024) found only two articles that dealt directly with wisdom pedagogy in higher education. She concluded that more research on wisdom pedagogy is urgently needed and that findings from pedagogical studies should be synthetized and theorized by building a wisdom pedagogy model. In Part II of this book, we respond to these appeals by reviewing both wisdom research and educational studies and by constructing a Teaching for Wisdom Model.

Part I

Towards a Holistic Wisdom Model

Eeva K. Kallio, Päivi Tynjälä, Elina Paananen, Anu S. Virtanen, Maarit Virolainen, Terhi Ek, Hannakaisa Isomäki and Hannu L.T. Heikkinen

Part I of the book presents a critical literature review that we conducted with the aim of constructing a holistic model of wisdom by analysing previous models in the field of psychology. The resulting Holistic Wisdom Model (HWM) is rooted in a holistic ontological conception of the human being, which provides a philosophically well-argued definition of human potential that can be applied to the concept of wisdom. The main components of the HWM are the cognitive dimension, which encompasses intellectual aspects related to wisdom; affective-social dimension, which involves emotional regulation and compassion; ethical-existential dimension, which addresses moral and existential reflection; and the action dimension, which focuses on practical manifestations. In the HWM, the subject or person acts as the coordinator across these dimensions. A central feature of the model is the dynamic interplay between intrapersonal and contextual polarities, visualized as a bidirectional dialectical loop. Wisdom is an axiological term representing the ideal and potential conduct of humans, and we claim that the HWM encompasses the attributes and characteristics of wisdom that are the preconditions for developing wisdom further as action in real life.

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2 Philosophical anthropological background of the new wisdom metamodel

2.1 The central role of philosophical foundations in the study of wisdom

To address difficulties arising from the diversity of wisdom research, we first argue for the importance of a theoretical analysis of the ontological underpinnings of wisdom research and then outline the premises of our study. Our approach builds on previous critical discussion of the lack of theoretical and conceptual coherence in former studies (e.g., Kristjánsson et al., 2021; Kekes, 2020). Despite these critical voices, growing attention has been given to psychometric validation of models and their measures and correlates (e.g., Glück & Weststrate, 2022). As a response, we want to highlight, from a totally new viewpoint, the essential importance of carefully conceptualizing wisdom.

Although wisdom is a deeply value-based concept, scholars have seldom declared their own values. Sternberg and Karami have stated that 'There is no such thing as a value-free wisdom-related problem' (2021, p. 142). This calls attention to the values embedded in the worldviews of the scholars that ground the different theorizing of wisdom and the need for self-reflection regarding those values (Overton, 2013a, 2013b). Exceptionally, Yang (2020) states that different conceptions of the human being have an essential impact on wisdom research. Also, as another rare exception, one wisdom model is explicitly based on a neo-Aristotelian interpretation of the concept of practical wisdom, *phrónēsis* (Kristjánsson et al., 2021), while some models are explicitly derived from basic Western philosophical categories, such as Kessler's (2020).

Drawing on the model of the Finnish philosopher-psychologist Lauri Rauhala (1914–2016), we argue that a holistic understanding of wisdom requires a conception of the human being as an ontological totality (Rauhala, 1993, 2005). Thus, any attempts towards a holistic understanding of wisdom should be concerned with whole systems rather than isolated parts. However, philosophers and psychologists have worked together only occasionally (such as Swartwood & Tiberius, 2019; Kristjánsson et al., 2021). Every branch of human sciences and thus also wisdom research is dependent on hidden philosophical assumptions regarding the ontology of the studied object (see, e.g.,

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Teo, 2017; Overton, 2006, 2013a, 2013b). These beliefs and tacit premises regarding human beings are of crucial importance and comprise an area of research called *philosophical anthropology* (e.g., Hannon & Lewens, 2018; Howard & Küpers, 2022; Pojman, 2005; Cahill et al., 2017). According to Overton (2006), there is always a need for metatheoretical, ontological-epistemological discourse to analyse the fundamental beliefs of the studied phenomena. Regarding psychological research of wisdom, one must consider these normative philosophical questions because put simply, *'... wisdom is an ideal (something we ought to strive for rather than merely a description of how things actually are), empirical science alone cannot give a plausible account of it'* (italics added) (Swartwood & Tiberius, 2019, p. 11). Similarly, wisdom is a culturally embedded value (Assmann, 1994, p. 187).

In philosophical anthropology, numerous interpretations and attempts have been made to conceptualize human nature and what a human being could be, potentially and optimally. These questions are foundational, as they bring forth decisions about how humans are to be studied and what are assumed to be the human capabilities under study (for a selection of research questions, methods, and interpretation of results, see, e.g., Rauhala, 1993, 2005). Lately, Hannon and Lewens (2018) have pointed out that the debate about human nature is complex and still topical (see also Cahill et al., 2017), especially in the era of concepts like 'posthumanism' and 'transhumanism'. The question already presented by Kant, 'What is the human being?' keeps re-emerging for each generation (Wentzer & Mattingly, 2018).

Wisdom as an ideal construct is analogous (but not identical) to the construct of an '*ideal self*' in psychology. An ideal self refers to an image of what kind of person one wishes to be, the direction in which one wants to progress, and one's life goals. It is the driver of one's intentional acts (Boyatzis & Akrivou, 2006). Analogously, wisdom can be seen as the *highest human potential*, 'the best' and the optimal, and thus comes close to the existential-humanistic endeavours of psychology (Schneider et al., 2014; Tay & Pawelski, 2022). Wisdom is mentioned as one of the virtues in positive psychology nomenclature (e.g., Peterson, 2006), as well as in the current discussion of character and virtue development (Peterson & Kristjánsson, 2024). There are thus overlaps between these fields, but we will concentrate here only on the philosophical premises and their connections to psychological research on wisdom.

2.2 Importance of ontology in wisdom studies: Rauhala's holistic image of the human being

Philosophically, the conception of the human being is a part of a larger whole of our conceptions and ideals concerning reality. Finnish philosopher Ilkka Niiniluoto (1984) has made a clarifying distinction between two related concepts that help us to understand the wide range of assumptions underlying our research: 'world conception' and 'worldview' (*Weltanschauung*). The

former describes what the world *is* like (or what we believe it to be like), the latter what we think the world *should* be like. Of these two concepts, worldview describes a wider totality of beliefs and attitudes concerning reality. It includes, besides our world-related beliefs, also an epistemology (how we can gain and justify knowledge about the world) and values (conceptions of right, and wrong). Worldview also includes assumptions about what a human being is, what its behaviour should be like, and what is its purpose in life (Niiniluoto, 1984, p. 87).

As an ideal image of humanity (Tiberius & Swartwood, 2019), a worldview brings with it beliefs and assumptions, such as possible beliefs about whether humans are free agents or not. Stevenson & Haberman (2009) state that understanding human nature also implies how we should live – i.e., it is not enough to describe how we exist as we are, but how *we should ideally be and act*. Our understanding of worldview as the basis of wisdom is that it is directed towards the creation of a better world, although the question of what is better, and for whom, is constantly contested.

A conception of the human being can be defined as a set of beliefs and values about humans. With this in mind, we had a preliminary understanding that the human being should be studied as a whole entity (Rauhala, 1993, 2005), as an integrated whole with possibilities for making choices in the given perceived context, and with possibilities for good and bad choices and actions. Historically, wisdom studies seem to have begun with a heavy emphasis on cognitive abilities as core (e.g., Baltes & Staudinger, 2000). This has evolved into a complex set of traits and skills (e.g., Bangen et al., 2013; Kristjánsson et al., 2021). Most scholars include ethics in wisdom (Grossmann et al., 2020), while some do not (such as Ardelt et al., 2019). Different scholars therefore emphasize different areas of wisdom, thus presenting a manifold image of wisdom.

Akrivou et al. (2020, p. 17) state that 'Modern psychology's avoidance of the ontological question of what it is to be human is an insurmountable limitation for properly understanding practical wisdom'. To avoid this mistake, we include a justified conception in our analysis. A focal philosophical premise underlying our approach to wisdom is Rauhala's (1993, 2005) account of the human being as a monopluralistic totality. This conception includes descriptive tiers that are necessarily included: the human being is built of different characteristics of being, which however form an integrated whole in which all aspects of being presume each other's existence. Rauhala's (1993, 2005) analysis distinguishes three basic tiers of human existence: (i) embodiment (being organically; temporal-spatially; corporeally), (ii) situational being (being in relation to something; embeddedness; related to world), and (iii) consciousness/mind as a two-level construct, as first- and second-order consciousness tiers (Figure 2.1).

In philosophical language, basic first-order consciousness refers to purely experiential phenomena such as seeing, feeling, reacting, or sensing without focused attention and reflection. Second-order consciousness refers to

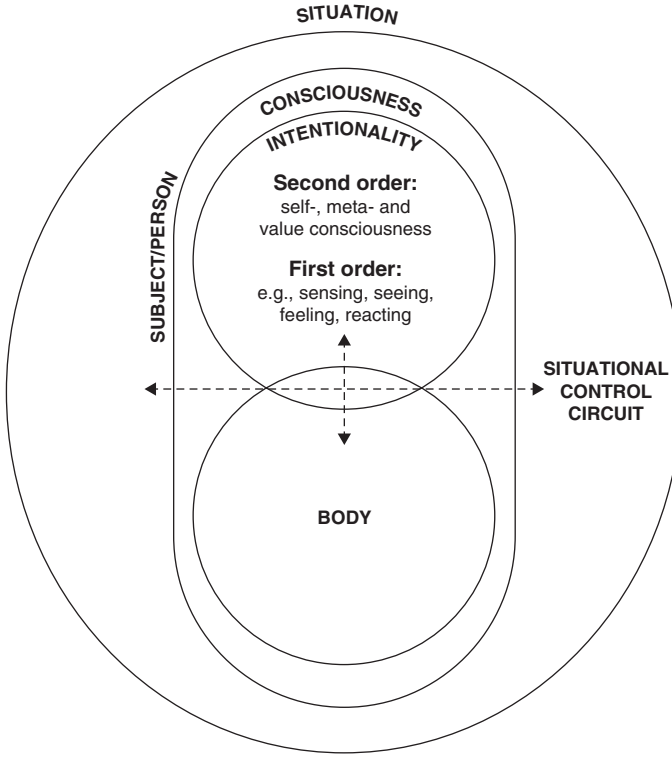

Figure 2.1 Tripartite conception of the human being according to Lauri Rauhala's philosophy.

metaconsciousness of first-order action, i.e., self-conscious thinking, reflection, regulation, and evaluation, as well as purely conceptual spheres (e.g., logical thinking) and value consciousness. Through these, second-order consciousness is also associated with situational systems, intersubjectivity, and context. Importantly, self-consciousness is part of second-order consciousness (Rauhala, 1993, 2005).[1]

Humans are meaning-making, culture-bound beings, and actions can be understood only by explicating intention (aim, *telos*), which is not mechanical action: 'persons act on the basis of the meaning events have for them' (Mascolo & Kallio, 2020, p. 22; Mascolo & Kallio, 2019; Teo, 2017). The concept of situatedness in Rauhala's model can be broadly understood to include the wider reality with which one comes into a relationship. Humans are constantly tied to a given environment, community, and cultural, social, and environmental systems. These situational brute facts create the preconditions and context

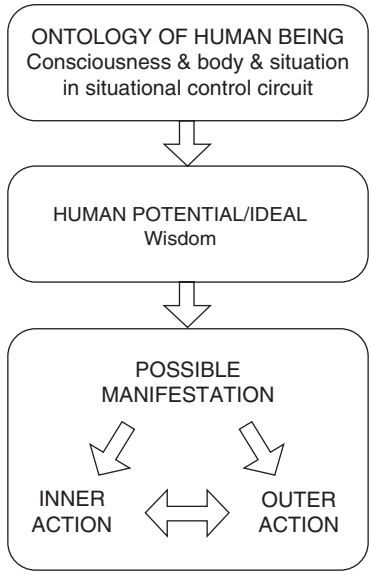

Figure 2.2 Wisdom as a human ideal and potential.

in which each human exists and can be considered destiny-like, as the human cannot intervene to determine, e.g., their parents, genes, or nationality. At the same time, each human being is unique, understood as having one-of-a-kind individuality, and their situation is always unique, as it changes constantly. Rauhala's model is systemic-dynamic: he refers to a situational control circuit, a reciprocal process where the dimensions of a system regulate and shape each other constantly (as, e.g., second-order consciousness values are in constant intersubjective interaction and related to the situation). Thus, the human being is in constant change amid the described tripartite monopluralistic state of being and, at least to some extent, constant regulation and adaptation: through self-consciousness, the human being directs and regulates the events of his own situational control circuit (Rauhala, 2005). There is a reductionist danger of differentiating between mind, body, and situation as separate entities, and failing to recognize that the boundaries of these are fused together; body and mind, for example, are intimately connected. Also, we must consider the whole situatedness as part of the human being's experience, not as a separate object of context (see Figure 2.1). Second-order consciousness refers to meta-action and to the highest values and virtues, such as intentional transcendence and action towards the common good by taking responsibility for one's actions. These objective values are examples and indicators of the highest potential of the human being, the person acting as regulator amid decision-making for ideal aims, both internally and externally (Rauhala, 1993, 2005) (Figure 2.2).

3 Research questions and methods of the study

The purpose of this critical literature review was to examine wisdom as a psychological phenomenon and to critically scrutinize selected wisdom models based on scholarly articles. More specifically, the following research questions were addressed:

1 How is wisdom defined in the wisdom models?
2 What are the main dimensions of wisdom across the models?
3 Can any theoretical or empirical gaps be identified in the models?

Examined through the research questions we formulated the following *research task* for this study:

> Based on existing psychological models of wisdom, the purpose of this study is to propose a metamodel of wisdom, which comprehensively incorporates and elaborates the main features of the models, paying particular attention to the formation of wisdom in the relationship between subject and context.

To select publications presenting a clear and structured psychological model of elements of wisdom, the third author (EP) first conducted a literature review including 13 models of wisdom (Paananen, 2020). In the second phase, the first and third authors collaboratively examined the models further. The starting point for selection of additional material was an analysis of the five currently widely known psychological wisdom models as presented by Sternberg (1998), Baltes and Staudinger (2000), Ardelt (2004), Glück and Bluck (2013), and Webster (2007). As a result of this phase, a preliminary classification of the main components of wisdom was made based on similarities found across the models.

In the next stage, additional peer-reviewed literature was searched from the PsycINFO and PsycArticles databases. The basic search terms 'wisdom', 'psychology', and 'developmental psychology' were used in the title, body, or keywords of English language academic articles, books, and electronic collections. There were no restrictions on the publication date of the articles. The result was 291 articles/books.

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Both theoretical and empirical arguments were used including and excluding other models for further analysis. The mentioned major wisdom models (Baltes, Sternberg,[2] Glück, Webster, and Ardelt) formed the basis of the analysis. Besides these major 5 scholars, the other 14 models selected were grounded in theoretical or empirical arguments to a certain extent. The reason for also including theoretical models was that previous critical discussions have pointed out theoretical flaws in wisdom theorizing (e.g., Kekes, 2020; Kristjánsson et al., 2021). To avoid Western cultural bias, one further criterion was also that at least some cross-cultural models are included. Thus, models by Wink and Helson (1997), Brown (2004), Bassett (2006), Brugman (2006), Mickler and Staudinger (2008), Yang (2017), Walsh (2015), Levenson et al. (2005), Karami et al. (2020), and Kristjánsson et al. (2021) were included. The total number of models included with these criteria was 15. In addition to these models, four 'metamodels', that is, models based on systematic literature reviews of previous models (or models based on expert consensus), were also included for the further analysis. These included four models: by Thomas et al. (2022), Grossmann et al. (2020), Karami et al. (2020), and Glück and Weststrate (2022).

In the next phase of the study, the first author categorized claims presented in the models into a figure, where similar claims of different models were classified under the same psychological domain. These categories included domains such as 'cognition' and 'emotion', and they were initially named as cognitive and emotional dimensions of wisdom. Then, claims regarding each dimension were collected. For example, 'deep self-reflection' and 'self-understanding' as well as 'perspectival metacognition' and 'postformal thinking' or 'dialectical thinking' were classified under the cognitive dimension. In the emotional dimension, 'empathy' and 'compassion', for example, were included.

Thus, all models were examined from the angles of the main psychological domains of cognition, emotions, ethics, action, and the regulative function of the subject/person (SP). Attention was also focused on how scholars specifically define each domain. For example, multi-perspective thinking as a form of cognition or compassion as wise emotion raised the possibility to formulate subdimensions. Attention was also paid to how the models have been psychologically traced and philosophically-ontologically argued, and whether a conception of human being is included explicitly or implicitly (all models and metamodels are summarized in Table 4.1).

The main work regarding database searches, analysis of the literature, and creating the final wisdom metamodel was done by the first author, while other authors participated in discussions about definitions and titles of the dimensions and subdimensions identified; they also commented on and edited the manuscript. A self-critical attitude was central in the data analysis, and the overall conduct of the research process was led, designed, and completed by the first author, while the other authors supported the process with critical questions and comments when reading and discussing the work at various phases.

4 Explicit wisdom models and metamodels in psychology

In the final phase of the study, 15 individual wisdom models and 4 metamodels were analysed. Each model and metamodel is briefly described below with regard to answering the research question: 'How is wisdom defined in the dominant wisdom models?' Following that, the similarities and differences between these models are described and demonstrated to answer the question: 'What are the main dimensions of wisdom across the models?' Then, in Section 4.1, we present the new wisdom model based on our findings.

4.1 Individual wisdom models

The *Three-Dimensional Wisdom Model (3DWM)* refers to cognitive, reflective, and affective components that act as an integrated whole (Ardelt, 2003, 2004; Ardelt & Pridgen, 2022). On a general level, the cognitive component refers to deep insight, and reflective ability refers to multi-perspective thinking. In terms of emotions, compassion is included in the affective component. The model also emphasizes personality as an 'agent' in wisdom, and the growth of personality to maturity is an important aspect of the model (Ardelt, 2004, 2008). The 3DWM is one of the most empirically studied models internationally (e.g., Steuden et al., 2019).

Baltes and Staudinger (2000) created one of the first wisdom models, the *Berlin Wisdom Model (BeWM)*, which focuses on 'general wisdom', that is, wisdom of common life matters rather than one's own life. According to the model, wisdom is deep expert knowledge of life (cognitive dimension) combined with virtue (ethics) and moral conduct in practice, as the goal of wisdom is to transcend oneself to attain general (but also one's own) well-being through action. Antecedent, mediating, contextual, and personality factors are also important although not explicit parts of the core model (e.g., wisdom is dependent on ego strength). Motivational-emotional factors and intense learning processes matter as well, though they, too, are not incorporated into the model's basic terms.

Mickler and Staudinger (2008) and Staudinger et al. (2005) have developed a personal wisdom model called the *Bremen Wisdom Model (BrWM)*

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based on the general wisdom model of Baltes and Staudinger. The BrWM focuses on how one attains insight and understanding of oneself and one's life, mind, and motives, and how one develops via these insights towards a mature personality. Personal wisdom focuses on judgment, advice, and solutions with regard to difficult and uncertain matters of one's own life (Staudinger, 2013, p. 5). However, the authors remind that '...we concluded that personality maturity is reached once one's own interests and potentials are realized while at the same time one considers the well-being of other people and society' (Mickler & Staudinger, 2008, p. 787). Some components (e.g., emotions) of the model are implicitly stated and can be understood as antecedent or mediating factors. The BrWM has been only sparsely empirically studied (e.g., Mickler & Staudinger, 2008).

Glück and Bluck's (2013) *MORE model* is based on empirical observations of resources that seem to enhance the development of personal wisdom after negative events. Its components are mastery, openness, reflectiveness, and emotional regulation (empathy). These refer, respectively, to a sense of mastery in life difficulties, flexibility to accept multiple perspectives on events, ability to reflect on what has happened, and attentiveness to one's own and others' feelings (empathy/compassion was added later to MORE). Empirical evidence exists for the model (e.g., Weststrate & Glück, 2017).

Sternberg (e.g., 1998) has developed a *Balance Wisdom Model (BWM)* in which intelligence, creativity, and wisdom act as a triad. Critically weighing and regulating multiple long-term and complex perspectives and goals, that is, intrapersonal, interpersonal, and extra-personal interests, is crucial for achieving balance in order to adapt to the environment, as well as ethical reflection towards general welfare. Tacit, experiential knowledge of life is a prerequisite along with factual knowledge to make wise decisions. Sternberg provides some general remarks on the model's theoretical background (e.g., Sternberg, 2001).

The *Self-transcendent Wisdom Model (SWT)* by Aldwin et al. (2019) focuses on the human ability to transcend the boundaries of the ego. According to the model, the individual can overcome the conditioned, socialized self to reach 'selflessness' through a quietening of the ego to overcome narcissism (Dong et al., 2023). Self-understanding and insight are important tools to this end. This definition of wisdom is based on an analysis of philosophical, religious, and scientific wisdom research both from the Eastern and Western traditions. There exists some empirical research regarding the model (Le & Levenson, 2005; Igarashi et al., 2018).

Bassett (2006, 2015) has created the *Emergent Wisdom Model (EWM)* based on empirical qualitative studies. It includes four components: discerning (cognition), empathizing (emotions), engaging (activity), and being (reflection). Discerning and being refer to realistic discernment of situations, self-understanding, and ambiguity tolerance plus holistic thinking. Empathizing pertains to respecting multiple perspectives and compassion for others.

Engaging means involvement in committed action. These features are deeply integrated with each other and, thus, for example, multi-perspective thinking is part of both discerning and empathizing. Bassett's model has been mentioned later by other scholars, but no further empirical studies exist.

The *neo-Aristotelian Phronesis Model (APM)* by Kristjánsson et al. (2021) and Darnell et al. (2022) is a four-component model including cognition, affect, motivation, and action. The model is partly traced from Aristotle's philosophy, and partly from a psychological background. According to the model, reflection on experience, moral emotions, and motivation are integrated into wise action. Empirical research is ongoing with this model (e.g., Kristjánsson et al., 2023).

Wink and Helson (1997) have created a '*Practical and transcendent wisdom*' model. The former relates to general expertise in everyday life and adaptation to society, and the latter to psychological self-understanding, maturity, and intrapsychic as well existential development. The model has been used in some empirical studies (e.g., Helson & Srivastava, 2002).

Brugman's (2006) *Epistemic Wisdom Model* traces to the ancient Sceptics' philosophical and modern psychological sources. He places acknowledgement of the uncertainty of knowledge at the core of wisdom. Wisdom components are cognitive, affective, personality, and action. His model is often mentioned but has not been extensively empirically researched.

Walsh (2011, 2015) gives a definition of wisdom from *cross-cultural and cross-disciplinary perspectives*. Across cultures and religions, wisdom is understood as deep insight, conceptual and trans-conceptual knowledge, and positive benevolent behaviour, and is an ability that can be trained and cultivated. Affects and emotions are omitted from the components of wisdom. Walsh discusses two forms of wisdom: horizontal and vertical, the former refers to psychological, and the latter to existential wisdom traditions and viewpoints. No empirical studies were found based on the model.

Yang's (e.g., 2017) *Process Model of Wisdom* includes three main components: cognitive integration, embodying action, and positive effects for oneself and others. These components are not, however, stable dimensions that produce wisdom in all contexts: wisdom is a product of constant interaction between subject and environment. The model has been used in some empirical studies (e.g., Yang, 2011).

Webster (e.g., 2003, 2018) has proposed a personal wisdom model that includes five components: Humour, Emotional regulation, Reminiscence/reflectiveness, Openness to experience, and critical life Experiences (*HERO(E) model*). Wisdom is regarded as a result of successful learning based on one's life history. Openness refers to multi-perspective thinking, and emotional regulation is possible with several tools, such as humour. Emotions and affects are important factors in the model. Webster stresses that wisdom is intentional: it does not happen accidentally. The model has been used in some empirical studies (e.g., Webster & Heintz, 2023).

According to Takahashi and Overton's (2002) *Relational-Developmental Model of Wisdom*, wisdom is viewed as two parts of the same process, which they refer to as Western and Eastern type wisdom based on 'analytical' and 'synthetic' forms. However, they do not claim that the Eastern and Western traditions are mutually exclusive. Analytical wisdom stresses cognitive, intellectual, and information-processing abilities, and is linear and accumulative in nature. The synthetic mode of wisdom refers to qualitatively transformative changes as a new form of integration. It is a fusion of separate psychological functions of cognition, emotion, and action. Wisdom can represent itself as deep insight, ineffability, self-discovery, and transcendence. The model has been used in some empirical research (e.g., Takahashi & Bordia, 2000).

Brown (2004), Brown & Greene (2006), and Greene & Brown (2009) have proposed *a Model of Wisdom Development*. The model is multidimensional with seven components of wisdom: self-knowledge, emotional management, altruism, inspirational engagement, judgment, life knowledge, and life skill (willingness to learn, which has been included in the original model, is not included here) (Brown & Greene, 2006). Some empirical studies have been done based on the model (e.g., Şahin et al., 2022).

4.2 Psychological metamodels

Next, we introduce the psychological metamodels of wisdom. We call 'metamodels' those that are created by extracting common or integrative claims from a group of individual wisdom models. We also include models that are formed through expert consensus by wisdom scholars. Four metamodels were found and named: the Jeste, Grossmann, Karami, and Glück models.

4.2.1 Jeste's San Diego model (SDW)

Based on expert definitions ($N = 30$; questionnaire), Jeste et al. define (2010, p. 668) wisdom as

> ... Uniquely human; a form of advanced cognitive and emotional development that is experience-driven; and a personal quality, albeit a rare one, which can be learned, increases with age, can be measured, and is not likely to be enhanced by taking medication.

They continued with a literature analysis of 31 articles by wisdom scholars (Bangen et al., 2013). Components of the SDW model are self-reflection, pro-social behaviours, emotional regulation, acceptance of diverse perspectives, decisiveness, social advising, and spirituality (Thomas et al., 2022, p. 617).

Self-reflection refers to 'the desire and ability to understand oneself and one's actions at a deeper level' (Thomas et al., 2022, p. 618). It assesses preferences regarding understanding one's own thoughts, motivations, and behaviours. *Pro-social behaviour* indicates 'empathy, compassion, altruism, and sense of fairness' for positive social connections. *Emotional regulation* refers to regulation of negative emotions that interfere with decision making. *Acceptance of diverse perspectives* means understanding of different values and openness to others. *Decisiveness* pertains to

> The ability to make decisions in a timely manner. It also assesses one's comfort with decision making, and *social advising* refers to giving good and timely guidance to others. Finally, the '*spirituality* component measures connectedness with oneself, with [...] nature, or with the transcendent like the soul or God.
>
> (Thomas et al., 2022, p. 618)

There has been intensive development of psychometrically reliable tasks based on this model (e.g., Thomas et al. 2022) as well as other empirical studies. Lee and Jeste (2019) have also included neuropsychological research and brain correlates in their wisdom research.

4.2.2 Grossmann's Common Wisdom Model (CWM)

Grossmann et al. (2020) have proposed a CWM that underlines two dimensions of wisdom: metacognition and moral-ethical thinking and acting. Wisdom is not a personality-dependent construct but merely a situational-contextual phenomenon. The model is based on an international survey of experts ($N = 44$) and theoretical and critical analyses of the current models. It is also partly based on a meeting of wisdom researchers ('Wisdom Task Force') in 2019 aimed at resolving disputes through discussion.

In the survey, wisdom scholars were first asked to describe their definition and key characteristics of wisdom for coping with life's challenges and how these qualities might be developed. The second question asked about the relationship between wisdom and specific concepts, such as common good orientation, perspective taking, and emotional intelligence. In terms of definitions of wisdom, the most common theme was *moral grounding* (e.g., pro-social attitudes, empathy), followed by categories of *second-order cognition,* i.e., metacognition. In their CWM model, moral grounding refers to general moral attributes (e.g., prosocial orientation) as well as the dominance of specific goals and tendencies (e.g., compassionate attitudes, sympathy) (Grossmann et al. 2020, p. 107).

The researchers also proposed a new term, 'Perspectival Metacognition', that is, understanding others' points of view, balancing multiple perspectives

and interests, adapting in context, and thus incorporating intellectual humility. The third characteristic mentioned in the responses to the survey was self-transcendence, but Grossmann et al. (2020) do not consider this important in the results.

Grossmann and colleagues have conducted earlier empirical research focused mostly on multi-perspective thinking. Empirical research strictly based on the CWM model has not been done so far, but some theoretical underpinnings of the CWM model are described (Grossmann et al., 2020).

4.2.3 Karami's Polyhedron Model (PWM)

The Polyhedron Model of Wisdom by Karami et al. (2020) is based on the most comprehensive summary of current wisdom models to date, covering 50 models (published 2006–2018, peer-reviewed). Only psychological studies (1/3) are included here. The components of wisdom in this model are as follows:

i *Knowledge management.* This element refers to the application of situation-appropriate knowledge, which may be factual, procedural, application-focused or reflective meta-knowledge, and knowledge building for collective understanding.
ii *Self-regulation.* Self-reflection focuses on thinking, one's life in general, emotions, and social life, and is a necessary condition for far-reaching goal setting and action.
iii *Altruism and moral maturity.* Prosocial behaviour and emotions, such as empathy, sympathy, compassion, and giving wise advice to others, are included. Moral maturity is understood as integrity, mindfulness, ethical conduct and a sense of justice, and self-transcendence as an orientation towards the common good.
iv *Openness and tolerance.* Wise persons are open to new and surprising experiences and able to adjust themselves to the radically new and uncertain, thus valuing the relativism of different viewpoints.
v *Sound judgment and decision-making.* Ability to make purposeful judgements based on 'interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based' (Karami et al., 2020, p. 250). Multi-perspective thinking is included here.
vi *Intelligence and creative thinking*. 'It appears that[, as] with other components of wisdom, creativity and intelligence are necessary but not sufficient, to be wise' (Karami et al., 2020, p. 251).

Karami et al. conclude that (vii) *Dynamic balance and synthesis translated into action* creates the 'core' of the model, which integrates all the other

dimensions together. Wisdom must also have fruits in action. No further theoretical or empirical work has been done on this metamodel.

4.2.4 Glück's Integrative Wisdom Model (IWM)

The last metamodel (IWM) integrates seven selected models together to create a new metamodel with two components: *non-cognitive* and *cognitive* (Glück & Weststrate, 2022). The following models are included: the Berlin Wisdom Model (Baltes & Staudinger, 2000), Bremen Wisdom Model (Mickler & Staudinger, 2008), Contextualized (Common) Wise Reasoning Model CWM (Grossmann et al. (2020), HERO(E) Model of Wisdom (Webster, 2007), MORE Life Experience Model (Glück et al., 2019), Self-Transcendence Model (Levenson et al., 2005), and the 3DW Model (Ardelt, 2003). The non-cognitive components of the metamodel, that is, personal emotional-motivational states, are in interaction with the cognitive ones, such as knowledge base, metacognition, and self-reflection. The IWM is based on implicit folk conceptions, expert conceptions, and model creators' reflections.

Non-cognitive components: exploratory orientation, concern for others, and emotional regulation. Non-cognitive components concern the motivation to understand life deeply and to grow through experiences. Wise persons can engage with opinions different to their own and are interested in diversity. Concern for others means understanding how others feel and caring for their well-being with empathy. In terms of emotional regulation, wise people can maintain affective balance even in the face of extreme challenges.

Cognitive components: knowledge, metacognition, and self-reflection. The 'knowledge' subcomponent refers to rich experiential knowledge of life and oneself, both positive and negative: this knowledge can be conscious, verbal, knowledge (reflection and insight), but often it can be tacit, automatized. Metacognitive capabilities refer to awareness and consideration of uncertainty and uncontrollability: wise persons are aware of their own limitations and are also aware of and consider divergent perspectives. Self-reflection means the capacity to ponder and distance oneself from one's own emotions and intuitions. No empirical or theoretical research has been done on this model so far.

4.3 Holistic Wisdom Model (HWM)

Regarding the overall research task of this study to propose a holistic metamodel of wisdom based on existing psychological models, a step-to-step analysis of the described 15 individual models and 4 metamodels was conducted. The results are shown in the Appendix and summarized in Table 4.1. They are presented based on the following psychological and philosophical considerations: which psychological domains (cognition, emotions, etc.)

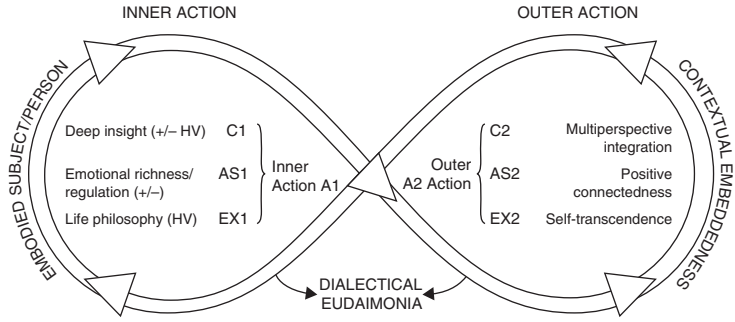

Figure 4.1 Holistic Wisdom Model (HWM).

and subdomains of them (e.g., multi-perspective thinking, compassion) are included in the models (Appendix, Columns II–VI) and whether they contain an explicit ontological conception of the human being. Also, other underlying theoretical assumptions of the models were taken into consideration (Appendix, Column VII). As a result, four main dimensions of wisdom common to most models were identified, each consisting of two sub-dimensions, as well as the element of the SP as a coordinative agent.

Regarding research question 3 on identifying empirical and theoretical gaps in the former models, none of the scholars have made extensive theoretical analyses of the premises of their model, aka human ontology (Appendix, Column VII, 1; Table 4.1). Sternberg (1998), Kristjánsson et al. (2021), Brugman (2006), Walsh (2015), and Yang (2020) have pondered some theoretical assumptions. Kristjánsson and Brugman base their models on explicit philosophies, but not on philosophical anthropological analysis. Levenson's model is grounded to some degree in theoretical-philosophical analysis based on the work of the philosopher Curnow (1999).[3] Also, Yang insightfully recognizes conceptions of wisdom as being worldview dependent: 'Members of different cultures may have different worldviews and, hence, *different conceptions about the essence of being human...These differences can influence how we define wisdom*' (Yang, 2020, p. 142, italics added). Although the philosophical underpinnings of the revised wisdom models have rarely been reflected upon, the psychological starting points are clearly explained for each model: folk/expert wisdom conceptions, former psychological theory, literature analysis, philosophy, or empirical observations (Appendix, column VII, 2).

Based on the analysis of the separate models and metamodels (Appendix) we created a new Holistic Wisdom Model (HWM, Figure 4.1.). To date, there are no metamodels that view wisdom from the perspective

of the basic domains of psychology. Our model consists of the following main dimensions (as traced from the domains) identified from the reviewed literature: the Cognitive dimension (C); Affective-social dimension (AS); Ethical-existential dimension (EX); and Action dimension (A). Each of these was divided into two subdimensions (marked 1, 2). All dimensions of wisdom are bidirectional and create a dynamic process: they all include a subjective, person-dependent polarity, and an out-of-person, contextual polarity. The polarities are not independent, echoing Rauhala's conception of a situational control circuit between subject and context. The SP element is stated as the coordinative 'agent' across domains.

Scholars agree that wisdom is a multidimensional construct with a varied number of components. The strongest agreement is on the cognitive dimension of wisdom. Second, a SP who directs action is assumed in most of the models, although frequently implicitly. Third, a committed life philosophy, self-transcendence, and emotions are also mentioned in most models. Almost all scholars underline practical action as a manifestation and necessary condition for naming something as 'wise'. What follows is a deeper analysis of the results in order to integrate them into a new metamodel.

4.4 Dimensions of the HWM

4.4.1 Cognitive dimension: deep understanding

We claim that the *cognitive dimension (C)* of wisdom is one of the four main dimensions. The C1 subdimension of it is intrapsychic, including deep personal experiential knowledge, reflection/metacognition of life experiences, and insight into oneself (e.g., Glück & Weststrate, 2022; Mickler & Staudinger, 2008). Besides experiential knowledge, tacit and expert knowledge are also both included in wisdom (Baltes & Staudinger, 2000; Sternberg, 1998) as well as intuition (e.g., Walsh, 2015). Deep self-reflection with metacognition indicates honest understanding of one's psychological inner landscape and motives, including both positive and negative ones (marked −/+ in the Appendix and Figure 4.1). Metacognition touches on the ability to reflect on the second-order dimension of one's thinking processes, such as distancing oneself from immediate impressions.

We call these features the *deep experience-based insight* subdimension (C1). Intuition is mentioned in some models, but there are differences among scholars as to what is meant by it: (i) psychological intuition (tacit, preconscious/nonconscious) (e.g., Sternberg, Baltes) or (ii) transconceptual intuition (intuition without concepts) (e.g., Walsh, 2015; Aldwin et al., 2019; Takahashi & Overton, 2002). We refer to these as *horizontal* vs. *vertical* definitions of intuition. The latter is mentioned in models based mainly on non-Western wisdom traditions (Wink & Helson, 1997). However, it must be noted that

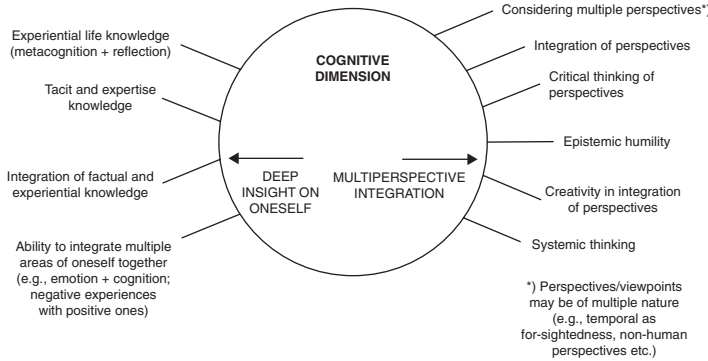

Figure 4.2 Subdimensions of the cognitive dimension of wisdom in the HWM.

experiential knowledge and intuition do not mean that factual knowledge is dismissed. On the contrary, factual knowledge is integrated with intuition (e.g., Walsh, 2015).

The C2 subdimension is named *multi-perspective integrative thinking*. It is clearly included in various individual models (e.g., Brugman, 2006; Webster, 2003; Baltes & Staudinger, 2000; Sternberg, 2001), but with various terms, such as postformal, flexible, or dialectical thinking. Scholars have mostly defined it as the socio-cognitive ability to integrate various viewpoints, while others, such as Darnell et al. (2022), define it as ethical multi-perspective thinking, and Sternberg (1998, 2001) as a form of temporal far-sightedness, aka the ability to integrate various interests or contexts of stakeholders together with foresight. As in multi-perspective thinking, it indicates growing decentration abilities and social perspective-taking, and metacognitive/reflective awareness (Grossmann et al. 2020). This kind of thinking brings along with it epistemic humility and Socratic 'not-knowing' (Brugman, 2006) as well as critical thinking and evaluation skills (Karami et al., 2020). Tolerance of ambiguity and openness were included here as well as a product of open, flexible thinking. There were some mentions of creativity, as it is often understood as a form of unusual integration (e.g., Yang, 2020).

The cognitive dimension seems to have gained the most interest among scholars. It can be divided into separate subdimensions, as presented in Figure 4.2. However, these create areas that are closely related and tied together.

4.4.2 Affective-social dimension: deep caring

The second dimension of wisdom concerns affective, emotional states, their regulation, and positive connectedness with others. The subjective

polarity of this dimension is associated with *affective, emotional richness and regulation (AS1)* while, on the opposite side of loop, the social/contextual polarity is associated with positive connectedness, i.e., *prosocial emotions towards other persons (AS2): care, compassion, and empathy*. There is considerable variation in the description of emotional richness in the models, ranging from emotional sensitivity (Glück & Bluck, 2013), joy, inner peace, awe, and serenity (Walsh, 2015) to mature affections (Wink & Helson, 1997) or the full spectrum of human emotions (Webster, 2003). Experiencing, encountering, and, above all, accepting all emotions (negative and positive, marked −/+ in the Appendix and Figure 4.1) are important, which is here classified as 'emotional richness'. It must be noted that one scholar (Walsh, 2011, 2015) denies altogether that emotions play a role in wisdom, and some have a cautious attitude towards it (e.g., Grossmann et al., 2020). Emotional regulation is also associated with AS1. The ability to remain calm and balanced in emotionally difficult situations is a skill learned through life experience. All the metamodels include emotions in wisdom; Grossmann et al. (2020) do not name emotions as an explicit basic part of the CWM, which focuses on morally grounded excellence in social-cognitive processing. However, it is obvious that they include emotions in their construct (see Appendix, Grossmann et al., e.g., sympathy, compassion, prosocial attitudes). They also claim that '...emotion regulation is not sufficient for wisdom, although in many cases good emotion regulation skills may be necessary to develop wisdom' (Grossmann et al., 2020, p. 124). Some authors also consider motivation as being close to emotion (e.g., Darnell et al., 2022; Baltes & Staudinger, 2000).

Regarding the social polarity of the AS dimension, empathy and compassion are associated with the ability to consider other people's perspectives: the experience of compassion is not possible without the ability to imagine oneself in the other person's shoes (AS2) (Ardelt, 2004; Bassett, 2006; Webster, 2003). Compassion and empathy are also associated with the pursuit of the common good: transcending the boundaries of the self and pursuing the interests of a wider group of people (Aldwin et al., 2019).

4.4.3 Ethical-existential dimension: ethical vision

From a subjective viewpoint, we consider a committed philosophy of life – ethical principles – as an essential feature of the *ethical-existential* (EX) dimension. We claim that wise persons have a committed, positive life philosophy that guides them. This is implicitly included in almost all models, as the common claim seems to be that there is an ethical purpose to wisdom. Committed, examined positive values are a necessary precondition for wisdom in most wisdom models (e.g., Baltes, Mickler, Sternberg, Levenson, Bassett, Wink & Helson, Walsh, Webster). The *life philosophy* (EX1) subdimension may derive from any value source from atheism to theism, secular

humanism, materialism, scepticism, spiritualism, or other commitments to general well-being (Brugman, 2000). We found *horizontal and vertical* positions of life philosophy: the former refers to secular, the latter to metaphysical views.

The EX2 subdimension indicates *self-transcendence*, 'going beyond oneself', for others and for the common good (Thomas et al., 2022). It refers to altruism, passing beyond one's egoistical interests, while also maintaining healthy personal boundaries (Karami et al., 2020). We found implicit meanings of the term 'self-transcendence' that have not been explicated so far. According to some models, the term means 'ego-lessness' in the sense of self-transcendence for others, acting beneficially for others' sake (*horizontal*) (Aldwin et al., 2019), or ego-lessness as a 'fading' of the ego metaphysically, but in a healthy way (*vertical*) (e.g., Walsh, 2015; Wink & Helson, 1997). In some models, they can coexist (e.g., Aldwin et al., 2019). While self-transcendence can be used in many senses (Yaden et al., 2017), we use self-transcendence here in association with values such as Schwartz's (2012) universalism values (understanding, appreciation, tolerance, and protection for the welfare of all people and for nature).

Surprisingly, not all wisdom scholars have mentioned the EX dimension: for example, it is not included in Ardelt's (2004) very well-known wisdom model or in Glück et al.'s (2013) model. It can also be concluded that some scholars (e.g., Kristjánsson et al., 2021; Grossmann et al., 2020) see the ethical-existential dimension as fundamental to wisdom.

4.4.4 Action dimension: ethical action

All the scholars of the models agree that wisdom should manifest in practical action. Thus, the fourth dimension of the HWM is *action* (A), which is always combined with other dimensions (C, AS, EX). Action is also bidirectional, as are the other dimensions. The intrapersonal, inner action component manifests itself as *self-cultivation* (A1), whereas its counterpart, the contextual dimension, refers to *ethical ways of outer action* (A2). It has been common in ancient wisdom traditions to use person-focused practices, such as meditation, yoga, or tai chi as cultivation paths for further self-development (e.g., Walsh, 2015; Wink & Helson, 1997) as well as daily journal writing for examination of own motives (Marcus Aurelius, Meditations, 2013), or exercises such as the 'spiritual' techniques of the ancient Greek philosophers (Hadot, 1995) (*vertical* A1). In the modern day, various forms of psychotherapy and even self-help methods seem to share similar intentions (Walsh, 2015; Schaffner, 2021) (*horizontal* A1). This motivation for personal growth through constant learning from different perspectives as well as general openness to new experiences and flexibility is also reflected in the modern wisdom research corpus (e.g., Baltes & Staudinger, 2000; Brown, 2004, Glück et al., 2013).

Although all scholars agree that outer action (A2) is the final criterion of wisdom, descriptions of what this means are surprisingly sparse. One of the rare examples is to give wise advice to others based on insights from one's own life experience (e.g., Thomas et al., 2022; Karami et al., 2020). Yang (2020) has explicitly included concrete wise action in her model: wisdom expresses itself in embodied action, it must be essentially practical (see also Darnell et al., 2022). Surowiecki (2005) has reflected on collective wisdom and, lately, there has been discussion of ecopsychological perspectives about collective wisdom (Şahin et al., 2022). In general, wisdom in outer action has not been studied much in psychology. From an ethical-existential viewpoint, this is surprising, as self-transcendence is widely recognized as an important feature of wisdom.

4.4.5 Subject/Person (SP) as a core coordinative element

Most wisdom scholars refer implicitly or explicitly to the subject who takes charge of pursuing wisdom: we name this the SP as a core 'agency' element. Several different terms or descriptions for this are used by scholars, such as wisdom as a personality trait (Ardelt, 2004; Thomas et al., 2022; Glück et al., 2013), a highly developed mature personality or ego (Mickler & Staudinger, 2008; Takahashi & Overton, 2002), transcending the ego to ego-lessness (Levenson et al., 2001), or character (Darnell et al., 2022). References to SP (agent, self, ego, personality, and the like) are not always explicit but may be hinted at or assumed via other expressions (Appendix, column VI). Very often they are implied indirectly as regulation of the self, cognition, or emotions (Karami et al., 2020) or, as in Brown (2004), as internal locus and authenticity. One group of scholars (Grossmann et al., 2020) is sceptical of wise personality but, in general, it can be claimed that most scholars either explicitly or implicitly assume some kind of internal locus. It is also important to note that scholars who have included Eastern influences in their model seem to emphasize the transcendence of ego towards (metaphysical) emptiness (Levenson et al., 2001; Wink & Helson, 1997; Takahashi & Overton, 2002; Walsh, 2015) (again, *horizontal* vs. *vertical* meaning of the term).

We claim that wisdom is a phenomenon that does not occur by chance. Levenson and Crumpler (1996) have presented a 'liberative' model of adult development, according to which, in adult development, there is comparative freedom from the effects of biological and sociological powers. Liberative freedom requires conscious, volitional transformation towards an intentional aim. Although human beings are seen as partly determined by biology (maturation) and environmental causes (social factors), they are, however, also partly determined by the volitional decisions they make amid various possibilities (Pascual-Leone, 1990). Birren and Svensson (2005, p. 17) state that

wisdom involves the '...control and management of behaviour that includes intention, purpose, and will'.[4]

We take the position, based on Rauhala's holistic conception of the human being, that the SP is a decision maker via second-order consciousness, i.e., self-, meta- and value consciousness. Also following Rauhala, situational embeddedness and constant circular regulation between the human being and the environment are also important in creating a holistic totality in wisdom-demanding environments.

Typically, wisdom scholars agree that the goal of wisdom is general well-being (flourishing) (Law & Staudinger, 2016; Dong et al., 2023). In academic circles, this idea of general welfare or 'happiness' is often expressed with the concept of *eudaimonia*, that is, 'living life in a full and deeply satisfying way' (Ryan & Deci, 2006, p. 1). However, the notion of constant well-being and a fully satisfying life has been critically revisited lately by some scholars (Fowers et al., 2017). Living one's life is not solely about well-being, but inevitable stressors, difficulties, and backlashes occur (Wong et al., 2022). Therefore, it is important to understand that a good life is not always about positive experiences. We concur with these claims and thus prefer to use the term 'dialectical eudaimonia' (Figure 4.1), which emphasizes the importance of acknowledging that, realistically, efforts and adversity are normal (rather than exceptional) ingredients of the good life worth living. Thus, living wisely involves the pursuit of the common good while at the same time realistically recognizing one's own and situational boundaries and limitations. In our modern times of pollution, extinction, and climate change, the idea of well-being should be applied not only to individuals and humankind but also to other living creatures and the planet as a whole.

Table 4.1 Different wisdom models and metamodels compared

PSY-/Phil-dimension ***Author of individual models***	*C1*** *AB*[a)] *Deep insight*	*C2*[b)] *Multisyst*[b]	*AS1 Emotional richness/ regulation*	*AS2 Prosoc emotions*	*EX1 Life phil*	*EX2 AB*[c)] *Selftrans*	*A1*[d)] *Self-cult*[d]	*A2 Ethical action*	*SA Subject/ person AB*[e)]	*PHIL1/2****
1 Ardelt et al.	xAB	x	x	x	-	(x)	xAB	-	xAB	-/x
2 Baltes et al.	xA	x	(x)	(x)	x	xA	x	x	(xA)	-/x
3 Mickler et al.	xA	x	x	(x)	x	(xA)	xA	(x)	xA	-/x
4 Glück et al.	xA	x	x	x	-	x	xA	x	xA	-/x
5 Sternberg et al.	xA	x	x	(x)	x	xA	x	x	xA	(x)/x
6 Levenson et al.*	xAB	(x)	x	(x)	x	xAB	xAB	x	xAB	-/x
7 Bassett	xA	x	x	x	x	xA	x	x	xA	-/x
8 Kristjánsson et al.	xA	x	x	x	x	xA	x	x	xA	(x)/x
9 Wink & Helson (*)	xA(B)	x	x	x	x	xAB	xAB	-	xA	-/x
10 Brugman	(xA)	x	x		x	-	x	x	xA	(x)/x
11 Walsh*	xAB	x		-	x	xAB	xAB	x	xAB	(x)/x
12 Yang*	xA	x		(x)	x	xA	x	x	xA	(x)/x
13 Webster et al.	xA	x	x	x	x	xA	xA	x	xA	-/x
14 Takahashi & Overton*	xAB	x	x	x	x	xAB	xAB	x	xAB	-/x
15 Brown et al.	xA	x	x	x	x	xA	xA	x	xA	-/x
METAMODELS										
1 Jeste et al. (*)	xAB	x	x	x	x	x A	x	x	x A	-/x
2 Grossman et al. (unclear if *)	xA	x	(x)	x	(x)	(xA)	x	x	(-)	(x)/x
3 Karami et al. (unclear if *)	xA	x	x	x	x	xA	x	x.	x A	-/x
4 Glück et al. (*)	xA	x	x	x	(x)	xA	x	x	xA	-/x
5 Kallio & Tynjälä (*)	xA(B)	x	x	x	x	xA(B)	x	x	xA(B)	x/x

(*Continued*)

Table 4.1 (Continued)

1 Meaning of symbols on the top raw: Cognitive C1=Deep experience / insight, C2= Contextual multiperspective integration; Affective-social AS1= Emotional richness / regulation, AS2=Prosocial emotions: empathy and compassion; Existential-ethical EX1=Committed philosophy of life, EX2=Self-transcendence; Action A1=self-cultivation orientation, A2 = Wise ways of action.
2 Intuition is included in C1 and has two meanings: A = intuition as part of psychological process (horizontal), e.g., in tacit, expertise knowledge; B = intuition as transconceptual phenomenon (vertical).
3 Multisystem thinking in two meanings: A = social perspective-taking; B = balancing/integrating different interests of temporal, social, environmental and subjective nature.
4 Values as A = in the sense of going beyond oneself for other people (horizontal); B = self-transcendence as personal philosophy of ego-lessness, spiritual transcendence in various forms (vertical).
5 Self-cultivation refers to (A) psychological cultivation (C, AS, EX dimensions); (B) cultivation methods that refer to non-psychological (e.g. philosophical/spiritual) realm.
6 A = subject/person may be understood to exist ontologically; B = subject/person is ontologically non-existent and possible to be transcended (although phenomenologically-experientially not denied).
7 Theoretical assumptions: 1 = Explication of tacit philosophical conception of human nature or other philosophical assumptions; 2 = Source of model/theorization (folk conceptions, theory,philosophy, empirical observations, etc.)

* Refers to models that include non-Western conceptions of wisdom (i.e. Eastern).

** Meaning of symbols on the top raw: Cognitive C1=Deep experience / insight, C2= Contextual multiperspective integration; Affective-social AS1= Emotional richness / regulation, AS2=Prosocial emotions: empathy and compassion; Existential-ethical EX1=Committed philosophy of life, EX2=Self-transcendence; Action A1=self-cultivation orientation, A2 = Wise ways of action.

*** Theoretical assumptions.

a) Intuition is included in C1 and has two meanings: A = intuition as part of psychological process (horizontal), e.g., in tacit, expertise knowledge; B = intuition as transconceptual phenomenon (vertical).
b) Multisystem thinking in two meanings: A = social perspective-taking; B = balancing/integrating different interests of temporal, social, environmental and subjective nature.
c) Values as A = in the sense of going beyond oneself for other people (horizontal); B = self-transcendence as personal philosophy of ego-lessness, spiritual transcendence in various forms (vertical).
d) Self-cultivation refers to (A) psychological cultivation (C, AS, EX dimensions); (B) cultivation methods that refer to non-psychological (e.g. philosophical/spiritual) realm.
e) A = subject/person may be understood to exist ontologically; B = subject/person is ontologically non-existent and possible to be transcended (although phenomenologically-experientially not denied)

5 Justification of the HWM

Critique of former wisdom models and metamodels

The HWM is also partly based on critical analyses of former wisdom models. These important issues will be discussed in brief in the following section.

Wise cognition (C). The cognitive dimension of the HWM is the most exhaustive of all, as C1 includes deep insight, experiential knowledge, intuition, tacit, and implicit/explicit knowledge. C2 refers to multi-perspective integration, with epistemic humility, and critical thinking ability. Temporal far-sightedness and creativity are also counted as part of the dimension (Figure 4.2).

In general, most of the models in Table 4.1 are based on Western culture. In C1, the introspective ability to gain deep insight based on personal experiential life knowledge (e.g., Sternberg, 1998) is integrated with declarative explicit knowledge (Baltes & Staudinger, 2000). The term intuition, however, needs exploration reflected against the concepts *horizontal/vertical*. The basic meaning of the term intuition refers to rapid, automatic, and implicit information processing as well as to transconceptual intuition (on both, see Walsh, 2015). We included both types of intuition in the HWM as we acknowledge that due to rapidly increasing multiculturalism different worldviews must be included (Yang, 2020).

Second, Sternberg (2003) and Karami et al. (2020) have been rare among scholars to have included creativity in wisdom. It is implicitly included in multi-perspective thinking, which synthetizes contradictory systems and ideas into new dialectical solutions (Yang, 2020). Sternberg has also included a temporal dimension of far-sightedness in his model, which is surprisingly almost non-existent in other models, except for Brown's (2004) model. Far-sightedness is understood in the HWM as a mode of multi-perspective thinking, the ability to balance the multiple-level interests and temporal perspectives of stakeholder groups.

Consciousness and metaconsciousness (C). Grossmann et al.'s (2020) CWM wisdom model includes 'Theory of mind', in which perspectival (multi-perspective) metacognition is a later developing 'higher' layer of (meta)consciousness. According to Grossmann et al. (2020), 'The concept of meta-consciousness shares a great deal in common with the meta-cognitive components central to the empirical conceptualizations of wisdom... Both

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require a perspectival appreciation of one's conscious experience' (2020, p. 21). We also refer to consciousness and metaconsciousness with respect to a constant phenomenological-experiential sense of identity and its temporal continuity (see also Mascolo & Kallio, 2020) close to Rauhala's philosophical understanding of structure of mind/consciousness and, thus, there is a link between the HWM and the current discussion of 'Theory of mind' (Grossmann et al., 2020) with respect to wisdom.

Emotions and motivation (AS). In the metamodels of wisdom, created generally during the latest decade, there is a tendency to see affects from the viewpoint of emotional regulation (e.g., Karami et al., 2020; Glück & Weststrate, 2022). This refers to the ability to balance and control one's emotions to attain positive results. However, in early models, there has also been a tendency to stress the ability to feel both positive and negative feelings fully (e.g., Mickler & Staudinger, 2008), emotions such as joy and awe (Aldwin et al., 2019), and the full spectrum of emotions (Webster et al., 2018). Thus, we included 'emotional richness' alongside emotional regulation in AS1. Some scholars (e.g., Baltes & Staudinger, 2000; Kristjánsson et al., 2021; Webster, 2007) see a bond between emotions and motivation, but generally, the question of what motivates wisdom seems to be open one.

Values and ethics (EX): The question of 'value relativism' vs. 'value relativism with commitment' has not been analysed thoroughly so far. Almost all models and all metamodels see ethical commitment as part of wisdom, with rare exceptions, such as Ardelt (2008) and Glück (et al., 2013). Some wisdom researchers claim that wise people are 'value relativists' (e.g., Baltes & Staudinger, 2000, p. 124). However, we suggest that the discussion of value relativism is confusing as the general conception of wisdom is strongly normative: altruism and acting for the common good are core values. Value relativism can lead to the conclusion that there are no universally 'objective' values or moral norms. This kind of normative conclusion is not typically included in wisdom models. We suggest that instead of value relativism we should refer to openness to other perspectives and critical reflection on them, with the value of *commitment* to the common good as the reflected philosophy of life. However, wisdom as outlined in the HWM is based on contextualism, thus understanding of the common good is context-dependent and may vary across time and place.

Question of life philosophy vs. spirituality (EX). Jeste et al. (2021) claim that they have empirically shown that spirituality is a component of wisdom. According to them, spirituality refers to a sense of meaning and purpose of life, connection to a larger perspective, possibly, but not necessarily, in connection with religiousness. However, spirituality is a vague and ambiguous term to be treated with caution, as the use of the term does not account for atheists and agnostics who question spirituality or reject it outright. Thus, we claim that the concept of life philosophy should be used

instead of spirituality, as we have justified in sub-section 4.2.3. Metaphysical ontological assumptions may differ totally at the level of life philosophy and yet the resulting ethical values and actions may be wise in all cases.

Human ontological assumptions. None of the models or metamodels have an explicit philosophical-ontological conception of the human being or a conception of human potential. Some scholars do, however, mention these, such as Yang (2020). One partly implicit ontological conception is in the Grossmann et al. (2020) metamodel. The scholars are against any '*essentialist*' conception, i.e., wisdom as a personality trait. They contrast with Grossmann et al.'s own (2020) *constructivist*, situation-dependent conception of wisdom where wise action varies according to the context. There is also a third alternative (Glück & Weststrate, 2022): situation-dependent and trait-like features both exist at the same time (*interactionism*). However, these ideas are just starting points for reflecting more deeply on the assumed conceptions of the human being; proper philosophical analysis is needed of these stances.

Confusion of meanings of terms indicating vertical/horizontal phenomena. The meanings of the core terms regarding intuition (C1), life philosophy (EX1), self-transcendence (EX2) and the question of SP differed between models. Lately, in the metamodels, these nuances have even faded out (e.g., Grossman et al., 2020; Karami et al., 2020). Horizontal (i.e., psychological) modes of interpretation are most common in the models that originated in Western cultures (e.g., Baltes & Staudinger, 2000; Grossmann et al., 2020). Vertical (metaphysical) conceptions include certain contemplative philosophical conceptualizations, such as 'Eastern' ontologies (e.g., transcendence of self to non-self, e.g., Wink & Helson, 1997).

Interrelationship between wisdom dimensions. All scholars agree that wisdom is a multi-dimensional psychological phenomenon. There has been discussion lately of the minimal or most necessary dimensions of wisdom (e.g., Phan et al., 2021; Hu & Glassman, 2022). Typically, scholars name several components that are necessary, but not sufficient, for defining something as wisdom: Ardelt and Pridgen (2022) name three, Grossmann et al. (2020) two, Karami et al. (2020) seven, Glück and Weststrate (2022) two, and Thomas et al. (2022) six components. Nusbaum (2018) suggests that only one, the self-transcendence dimension, can be *the* core component of wisdom. However, it must also be remembered that the human being acts always as a totality, and multiple processes construct wisdom. An analytical approach is needed, but also a holistic one. Another question is whether this can be solved either theoretically or empirically, or whether both approaches should be used.

Neuropsychological basis. Only Lee and Jeste (2019) have proposed a preliminary hypothesis of which kinds of neuropsychological processes are involved in wisdom. They claim that these processes '...appear to be localized primarily to the prefrontal cortex and limbic striatum' (2019, p. 127). This thread of research is important as bodily functions are necessarily involved

in a holistic understanding of a person (Rauhala, 2005); it is also important from the perspective of embodied wisdom, which opens intriguing avenues for further study (Blake, 2022; Smith & Bretherton, 2021).

Finally, it must be noted that the HWM describes only the *characteristics* and *attributes* that are *necessary for wisdom*. Wisdom is a phenomenon that is difficult to define, and our attempt has been to integrate explicit scholarly definitions together within a single model. Wisdom is understood as a rare and valued advancement in human development, for which the mentioned attributes act as necessary preconditions.

In sum, the HWM is founded on a philosophical holistic ontology of seeing the human being as a monopluralistic totality. Accordingly, based on this model, we propose the following psychological definition of wisdom:

> Wisdom is an inherent human potential involving ideal behaviour and action. It arises from a committed ethical life philosophy and manifests in the subject's intentional decision to find ethical solutions to practical, ill-defined or existential problems through deep integration of cognition, affective-social processes, ethical self-transcendence, and action for the common good. It is a bidirectional phenomenon with subject- and context-based polarities, the former referring to self-understanding and the latter to situational wise action in smaller and larger contexts and environments.

Notes

1 Rauhala uses, according to the German hermeneutic-phenomenological philosophical tradition, the term '*Geist*', Spirit, to refer to metaconsciousness, i.e., the second-order psychological tier. As the term 'Spirit' is currently used in a different and ambiguous fashion, we do not use it here (Rauhala clearly states that religiosity is one possible part of meta- and value-consciousness, but not a necessary part; one can, of course, have atheistic or non-religious values).

2 We refer here to Sternberg's 'original' model (1998). He has later suggested many other wisdom models (e.g., 6-P model, Sternberg & Karami, 2021 or 'philosophical' TOP model, Sternberg, 2024), but we have not included them here. They have not been evaluated conceptually or been empirically studied to date, but the model we use (1998) is mentioned as one of the prominent models in wisdom nomenclature.

3 Some philosophers have done deeper theoretical analyses, e.g., of Baltes' model, such as Gugerell & Riffert (2011) and Banicki (2009).

4 According to Howard and Conway (1986, p. 1), 'Concepts such as human volition, self-control, self-determination, and so forth have a long history in Western thought.... Examples of volitional themes throughout human thought include choice, teleology, introspection, option, spontaneity, final causality, intention, purpose, humanism, and so forth. Themes that are associated with nonvolitional perspectives are control, cause, material causality, efficient causality...' Whatever philosophical position is taken for granted, subjects can demonstrate autonomy in situations that require a decision between alternative possibilities to act or not to act, i.e., governance of one's actions (see also Frankl, 1985).

Part II

Pedagogical practices for nurturing wisdom in educational contexts

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In this second part of the book, we focus on studies of pedagogical practices that may have the potential to nurture wisdom in formal educational settings. We investigate pedagogical practices in relation to the four dimensions of wisdom identified by previous studies and as summarized in the Holistic Wisdom Model (HWM) presented in Part I – the cognitive, affective-social, ethical-existential, and action dimensions. Based on the review, we present a Teaching for Wisdom Model (TWM) including seven pedagogical principles as a tool for facilitating wisdom development in formal education. We propose that nurturing attributes related to wisdom is possible at all education levels, from early childhood education to higher and adult education.

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6 Pedagogical practices for nurturing wisdom in educational contexts

6.1 Introduction

The aim of this part of the book is to answer the following research question: *How can attributes associated with wisdom be nurtured in educational contexts and what kinds of pedagogical practices might serve this purpose?* For understanding the characteristics related to wisdom, we use the HWM presented in Part I, as this model is based on a broad review of psychological wisdom research and offers a synthesis of different wisdom models and metamodels. As described in Part I, the HWM presents wisdom as a multidimensional and holistic phenomenon consisting of the following four main dimensions: (1) Cognitive, (2) Affective-social, (3) Ethical-existential, and (4) Action; each of which has subject-based and context-based polarities that are in constant interrelation. In the HWM, wisdom is seen as ideal behaviour and action concerning practical, ill-defined, or existential life problems. Wisdom is described as the subject's intention to find ethical solutions to problems through integration of cognition, reflection on affective-social processes, practical action, and self-transcendence for the common good. Guided by the HWM and based on both wisdom research and educational research, we examine here the potential of formal education and various approaches to pedagogy for nurturing characteristics related to the four dimensions of wisdom.

To answer our research question, we conducted a literature review in two phases. First, the literature used in Part I was utilized. This data set included: (a) 19 articles presenting different wisdom models and (b) 291 additional articles and book chapters or books. Of these sources, only those studies which had empirically examined how the development of wisdom can be supported by pedagogical methods in formal education were included. This criterion was met only in six publications. Therefore, in the second phase, we searched for educational research focused on teaching attributes associated with the four dimensions of wisdom (without making any explicit connection to the concept of wisdom). Thus, the searches focused on teaching (or supporting the development of) cognitive, affective-social, ethical-existential attributes, and the action dimension; separate searches were conducted for each of these

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areas. As these research fields are wide, the searches were restricted to years 2020, 2021 and January–March of 2022. In addition, only empirical and relevant review studies were included.

For studies focusing on the teaching of cognitive attributes, well-known studies on conceptual change, transformative learning and reflective thinking were first selected, after which a search using the ERIC (ProQuest) database was conducted with the search terms 'critical thinking' and 'review' in the title. The result was 29 review articles. Studies related to the affective-social dimension were searched with the term 'socio-emotional learning', and altogether 88 relevant articles were found, most of which were related to teacher development in teaching socio-emotional skills to students rather than student learning itself. A literature search related to the ethical-existential domain with the terms 'ethics' and 'education' or 'moral education' in the title produced 82 articles. Finally, the action dimension of wisdom was conceptualized and searched with the concepts of 'agency' and 'phronesis' (practical wisdom). These searches produced 38 published studies. All searches were limited to English language peer-reviewed publications. During the writing process, some additional new references were found.

6.2 Findings: pedagogical methods and practices nurturing wisdom

According to Grossmann (2020), many wisdom scientists view wisdom as malleable and educable, while some others say that it cannot be directly taught; according to them, it develops through life experience and informal unintentional learning or can be nurtured indirectly by arranging conditions contributing to its development (e.g., Kemmis, 2012a, 2012b). In this section, we examine the potential of different pedagogical practices from the perspective of nurturing characteristics related to the four dimensions of wisdom:

1 *Cognitive dimension*, characterized as deep knowledge and understanding, including the subdimensions of experience-based insight and multiperspective integrative and critical thinking. The former subdimension refers to reflective understanding of oneself and one's own life-experiences, whereas the latter pertains to factual knowledge of the outside world and the ability to take different perspectives into account in decision-making and synthesize knowledge from different sources.
2 *Affective-social dimension*, which manifests itself as deep caring and includes the subdimensions of emotional regulation and pro-social behaviour.
3 *Ethical-existential dimension*, which pertains to an individual's ethical principles. It is divided into the subdimensions of the individual's ethical life philosophy, referring to commitment to ethical values, and self-transcendence, that is, unselfish and altruistic orientation.

4 *Action dimension*, including the subdimensions of self-cultivation (growth orientation) and ethical action for the common good. This dimension is always combined with the other three dimensions.

Although these dimensions can be analytically separated, in wise action they are tightly integrated and fused with each other – being thus inseparable. The two subdimensions of each of the four main components of wisdom represent individual and out-of-person contextual aspects of wisdom.

As pedagogical research related to wisdom development is scarce, in the following review, we use not only wisdom studies but also studies of learning outside the wisdom research tradition. This can be justified with the observation by Kristjánsson (2021, p. 1319) on presenting hypotheses about nurturing practical wisdom: 'many of the hypotheses proposed have already been tested inadvertently by researchers who were overtly investigating something else'.

6.2.1 Developing the cognitive dimension of wisdom

Almost all of the wisdom models presented in Part I included the cognitive dimension as one of the central elements of wisdom (see Table 4.2). In educational research, the cognitive approach has traditionally dominated studies on learning and the development of expertise. Accordingly, these studies provide a rich conceptual and empirical basis for examining the possibilities for supporting the cognitive characteristics of wisdom.

For decades, research on learning factual knowledge has mainly focused on pedagogical methods aiming at activating students' learning processes. However, only a few experimental studies have been conducted by comparing activating methods and direct instruction or lecturing. In these studies, both approaches were found to have a positive influence on students' knowledge, but activating methods yielded higher scores than traditional teaching (Şahin & Arseven, 2022; Tynjälä, 1999). On the other hand, it has been pointed out that direct instruction is often misunderstood and misapplied (Ashman, 2021). It can be concluded that both listening to lectures and applying knowledge in practical exercises are needed, and some studies suggest that integrating direct instruction and reading with activating methods could yield the best results (Virtanen & Tynjälä, 2019, 2022).

Many pedagogical models and learning theories focus on reflective and integrative thinking, which in wisdom studies are associated with deep insight and the ability to integrate multiple perspectives in one's thinking (Grossmann, 2020; Kinsella, 2012). The importance of developing these forms of thinking has been emphasized, for example, in studies of conceptual change (Li et al., 2023; Sinatra & Pintrich, 2003; Vosniadou, 2007, 2008) and transformative learning (Hoggan & Finnegan, 2023; Mezirow, 1978; Southworth, 2022). Both research lines see the change in the learner's thinking as an

important outcome of learning, and they stress the need for reflection in these change processes.

Pedagogical methods used for bringing about reflection and changes in thinking include writing learning journals, pondering texts that challenge everyday beliefs (refutational texts), and group discussions (Gill et al., 2022; Mikkilä-Erdmann & Iiskala, 2020). Similar methods have been used for developing critical thinking (Cronmiller et al., 2022; Lorencová et al., 2019; Yeh et al., 2023). In wisdom research, reflection on experiences has been seen as a key factor in the accumulation of wisdom. In her integrated wisdom model, Bassett (2006, 2012) sees transformative learning as a main tool for fostering wisdom. According to her, in order to facilitate growth in the cognitive dimension of wisdom it is important to support reflection on one's experiences and observations (see also Chang, 2021). However, peer-reviewed empirical studies on transformative learning seldom examine learning from the wisdom point of view; only one case study published after 2011 was found, namely, by Janfada and Beckett (2019).

Research on professional expertise has emphasized both explicit and tacit knowledge as well as intuitive and reflective abilities in expert performance (e.g., Bereiter, 2002; Ericsson, 2006; Harteis & Billett, 2013). As ways to nurture these abilities, deliberate practice, reflective tasks, problem solving, integration and restructuring different forms of knowledge, and feedback from others have been suggested (e.g., Boshuizen et al., 2020; Ericsson, 2006; Gruber, 2021; Orozco, 2022; Orozco et al., 2019; Tynjälä et al., 2022a, 2022b). In the field of wisdom research, Baltes and Staudinger (2000), Swartwood (2013), and Sternberg (2004) have drawn on studies on expertise and described wisdom as an expert skill including intuition as well as deliberation and reflection. Swartwood (2013) suggests, in line with expertise researchers (e.g., Ericsson, 2006), that expert intuition develops best through reflection and feedback from others. This notion is consistent with the view that the development of wisdom is a highly interactive process and therefore interactive forms of pedagogy are important (D'Antonio, 2014).

Bracher (2021) argues that the most important cognitive function for solving global problems is systems thinking. According to him, the core of this kind of thinking consists of causal analysis, prospection, metacognition, and social cognition, and therefore education should target the development of these modes of thinking. Based on research into learning and the development of expertise, he presents several pedagogical principles for universities to develop the cognitive functions related to systems thinking and wisdom, including, for example, the following: (1) teaching should include explanations of the nature of complex systems specific to the discipline in question; (2) university courses should include assignments that engage students in practising systems thinking; and (3) the assignments and skills developed should be used to solve global problems, such as climate change, poverty, inequality, and authoritarianism (see also Bianchi et al., 2022).

In their review study, Huynh and Grossmann (2020) explored emerging empirical evidence focusing on wise reasoning, thus limiting their study to the cognitive dimension of wisdom. They concluded that there is little evidence-based practice of enhancing wisdom so far and that for developing educational curricula for teaching about wisdom it is important to contextualize the topic into the daily lives and situations of the learners. As concrete tools, they present students' reflections on their own life experiences and wisdom exemplars situated within contexts familiar to the students (see also Grossman, 2017).

Recent wisdom research provides empirical evidence about the role of reflection-based pedagogical methods in nurturing wisdom. For example, Ardelt (2020) used her three-dimensional wisdom scale to explore whether wisdom can be learned in university courses, which focused on the growth of the whole person and included service learning and reflective writing. Service learning combines theoretical study, practical experience, and volunteer community engagement. Reflection on experiences is an essential element of service-learning pedagogy (Gardner, 2021; Gomez-Estern et al., 2021; Hébert & Hauf, 2015; Shapiro, 2021; Tijsma et al., 2020). Ardelt's results showed that the cognitive dimension of wisdom, in her own model, did not significantly change in growth classes but decreased in control classes. However, the scores for the reflective dimension (which we regard as part of the cognitive dimension of wisdom) significantly increased in growth classes but did not change in the control classes. A comparison with another study by Bruya and Ardelt (2018) suggested that writing a reflective journal was crucial in wisdom development as it integrates academic and practical learning.

Although the findings of the studies reviewed above are promising as regards developing wisdom through reflective methods, there are also studies where no significant change was observed in courses using methods such as role play, journal writing, various exercises, or narrative simulations (e.g., Sharma & Lal Dewangan, 2017; Shrader & Muschalla, 2022). These findings suggest that a single brief course may be insufficient for wisdom development.

In addition to the reflective type of thinking, integrative thinking is also seen as an important element of the cognitive dimension of wisdom. Kallio (2011, 2020) has emphasized the role of integrative thinking as a core element of mature adult thinking. The concept of integrative thinking refers to a way of processing where an individual examines things from different perspectives and is able to synthesize even conflicting views or ideas. In learning research, integrative thinking has been associated with integrative pedagogy where students are guided to integrate and make connections between conceptual, practical, self-regulative, and socio-cultural types of knowledge. The processes and activities used to support such integration include assignments that require combining theoretical knowledge with practical experiences, problem solving, socially responsible action, and reflection (e.g., Elvira et al., 2017; Koskinen & Äijö, 2013; Ortoleva & Bétrancourt, 2016; Tynjälä et al., 2020,

2022a). Specific pedagogical methods used for bringing about these processes are diverse, ranging from individual journal writing to collaborative projects, work-integrated learning, and service learning. These kinds of activities have been used in some wisdom studies. For example, in Ardelt's (2020) study, service learning was integrated with theoretical studies and reflective writing, and Brown's (2004) model of wisdom development emphasizes learning-from-life through reflection, integration, and application (see also Greene & Brown, 2009).

At the beginning of the millennium, Sternberg (2001a, b) presented several principles for including wisdom in educational content (see also Dai & Cheng, 2017; Sternberg et al., 2007). In these principles, the main focus is on supporting students' thinking in general, and on dialectical, multi-perspective, reflective, critical, and creative thinking in particular. In all of these areas of research on thinking, there are plenty of educational studies (albeit without the wisdom concept). Based on numerous studies and reviews, a number of pedagogical methods have been suggested as having a positive impact on students' critical thinking. These methods include problem-based learning (PBL) (Alsaleh, 2020; Kong et al., 2014), concept mapping (Zandvakili et al., 2019; Yue et al., 2017), dialogical methods, such as Socratic dialogue (Farmer, 2018; Knezic et al., 2010; Pihlgren, 2008, see also Yang et al., 2005) and the Dialogos approach (Helskog, 2019; Yang et al., 2005), critical examination of knowledge (Virtanen & Tynjälä, 2019), argument mapping techniques (Ezfandiari et al., 2021), and student-centred active learning in general (Xhomara, 2022). Teaching students logical thinking strategies has also proved useful in developing university students' metacognitive (reflective) skills in scientific thinking (Kallio, 1998).

Review studies by Alsaleh (2020), as well as Payan-Carreira et al. (2019), have identified methods, such as PBL, simulations, collaborative learning, discussion methods, writing exercises, reading, questioning techniques, and peer review as ways to enhance critical thinking skills in students. It is also typical that pedagogies aiming at developing critical thinking combine several methods (Verburgh, 2019). Abrami et al. (2015) categorized methods contributing to critical thinking into four categories: dialogical methods, learning based on authentic problems and environments, mentoring, and individual study. Based on her review in the fields of the Arts, Humanities and Culture research, Dumitru (2019) argues that studying in these fields promotes both creativity and critical thinking because they are not separate from each other. This can be supported by the finding that critical examination of knowledge seems to promote not only critical thinking but also creativity (Virtanen & Tynjälä, 2019; see also Sternberg & Lubart, 2001). In general, diverse learning methods, encouraging agency and self-confidence in students and group work have proven important for developing creative thinking (Chan, 2013).

In sum, educational research provides a strong basis for understanding pedagogical practices and learning processes that have the potential to nurture cognitive characteristics related to wisdom. So far, empirical pedagogical research in the field of wisdom studies is scarce, but, collectively, education and wisdom studies have shown that a variety of methods aiming at developing reflective, integrative, and critical thinking are useful. Similarly, engaging learners in problem solving and connecting theoretical and practical learning seem to be important. The findings also suggest that it is useful to combine individual learning activities with collaborative and interactive learning. Altogether, diverse pedagogy, utilizing a variety of methods, is important for the development of cognitive attributes of wisdom.

6.2.2 Facilitating growth of the affective-social dimension of wisdom

The core of the affective-social dimension of wisdom is deep caring for others. As regards the individual, this manifests itself as emotional regulation, and in the out-of-person context as pro-social capability. In the field of education research, nurturing these skills has been examined using concepts such as social skills, socio-emotional skills, and emotional intelligence (e.g., Brackett et al., 2011; Dolev & Leshem, 2017; Jennings & Greenberg, 2009; Kian et al., 2020; Mahoney et al., 2021; Oliveira et al., 2021; Schonert-Reichl, 2017; Talvio et al., 2022; Virtanen & Tynjälä, 2022). Several school-based programmes on social emotional learning (SEL) have been developed to provide students with knowledge, skills, and attitudes needed in social relationships and emotion regulation (Bridgeland et al., 2013). Typically, the programmes include practical exercises integrated in different school subjects, and wider collaboration involving teachers, parents, and families. A meta-analysis by Goldberg and colleagues (2019), and a review by Barry and colleagues (2018), have found the effectiveness of interventions to be significant but small. These studies have indicated that the best outcomes can be achieved when interventions are integrated in everyday school practices with a whole-school approach.

One educational approach used for the purpose of nurturing pro-social attitudes and skills is service learning, which provides volunteer placements for students (Gardner, 2021; Gomez-Estern et al., 2021; Hébert & Hauf, 2015; Shapiro, 2021; Tijsma et al., 2020). For example, students of a Hong Kong university took a 12-day trip to Cambodia as a part of a service-learning course focusing on poverty alleviation. According to Yang et al. (2021), this service-learning experience led to incremental empathy building and moral development, although built on cognitive empathy more than affective empathy.

School culture and atmosphere has been found to be an important aspect related to the development of socio-emotional skills. A study on elementary schools by Kian et al. (2020) found regarding the atmosphere and social environment of the school that social relationships as well as a reward scheme had a significant positive association with students' social skills and school social climate. In another study, at the university level, Virtanen and Tynjälä (2022) examined what kinds of pedagogical methods could contribute to the learning of social skills in courses where these skills were not set as intentional learning goals. In their study, interactive and collaborative modes of teaching and learning, the features of constructivist learning environments and integrative pedagogy explained 46–58% of this kind of learning. Collaborative and constructivist methods have been found to promote social and other generic skills also in other studies (e.g., Ballantine & McCourt Larres, 2007; Kember et al., 2007). Furthermore, the role and professional development of teachers in enhancing socio-emotional learning in their students has been emphasized (Doley & Leshem, 2017; Oliveira et al., 2021; Osher et al., 2016; Schonert-Reichl, 2017; Talvio et al., 2022).

In wisdom research, there are some studies concerning possibilities for developing the affective-social dimension. In their review and meta-analytic study, Lee et al. (2020) evaluated the effectiveness of interventions to enhance social, emotional and spiritual dimensions of wisdom. Most of the interventions were based on group sessions. The meta-analysis showed a significant increase in the three wisdom dimensions (pro-social behaviours, emotion regulation, and spirituality) with small to large effect sizes, and 27 (47%) of the total 57 studies reported significant positive change with medium to large effect sizes. Thus, the findings suggest that group-based interactions may have effects not only regarding the affective-social dimension of wisdom but also on the ethical-existential dimension (where spirituality is one possible life-philosophical position in the HWM).

There are contradictory findings about meditation practices, such as mindfulness, for nurturing socio-emotional traits related to wisdom. In some studies, certain traits have been shown to increase with regular meditation. For example, in one study, brain regions responsible for emotion regulation and perspective-taking thickened after eight weeks of mindfulness practice (Hölzel et al., 2011). Similarly, compassion, empathy, and emotion regulation have been shown to increase according to some mindfulness studies (Birnie et al., 2010; Condon et al., 2013; Goldin & Gross, 2010). Modern Stoic philosophical training has been shown in one study to have significant effects on empathy (Brown et al., 2022). On the other hand, also adverse effects have been found to result from mindfulness (Britton et al., 2021; Poulin et al., 2021). Poulin et al. (2021) found that mindfulness increased selfishness and decreased pro-social behaviour in individualistic people, while it had the opposite effect on people with collectivistic thinking.

In a study by Ardelt (2020), the affective (compassion) dimension of wisdom increased in university classes that featured service learning and the pursuit of holistic growth (with a small effect size); these dimensions did not change significantly in the control classes. In another study (Bruya & Ardelt, 2018) of philosophy classes where traditional knowledge memorization assessments were replaced with reflective journals and other methods intended to foster wisdom, average wisdom scores increased, whereas in the control class, they declined. Although the reflective dimension of wisdom was under focus, a significant effect was only observed for the affective (compassion) dimension of wisdom. Thus, the findings suggest that the kind of education that intentionally pays attention to personal growth rather than just intellect may be beneficial for nurturing the affective-social dimension of wisdom.

Sharma and Lal Dewangan (2017) examined whether an 18-week intervention in a leadership course using mindfulness exercises, journal writing, case discussions concerning leadership virtues, and narrative simulations would have a positive impact on wisdom, measured with Ardelt's scale, including affective, reflective, and cognitive dimensions. After the intervention, no significant differences were found in any of these dimensions. However, emotional reappraisal increased with small effective size, which suggests that the intervention methods may influence the affective aspect of wisdom. This study did not examine the effects of each specific pedagogical method, and therefore, it remains unclear which method(s) may have caused the small effect observed.

Altogether, both education research and wisdom studies show that, at least to some extent, it is possible to influence, with different kinds of interventions, the development of pro-social and affective traits related to wisdom, such as social and emotional skills, empathy, compassion, and altruism. Teacher education in this area has proven successful for increasing teachers' awareness of the topic and enhancing their practical skills. Interactive pedagogy and collaborative learning, with explicit attention given to compassion and dealing with emotions, have been found to be important; contrastingly, studies on individual methods, such as certain meditation forms, have produced conflicting findings. In general, pedagogical approaches contributing to the development of the cognitive dimension of wisdom seem to also enhance the affective dimension, given that explicit attention is intentionally paid to affective aspects.

6.2.3 Nurturing the ethical-existential dimension of wisdom

Responsible values and a committed philosophy of life (such as spirituality) are characteristics associated with the ethical-existential dimension of wisdom outlined in the HWM (see also Baltes & Staudinger, 2000; Grossmann, 2017a, 2017b; Karami et al., 2020; Kristjánsson & Fowers, 2023). These attributes

manifest themselves in ethical thinking and action on the individual level and as orientation towards the common good on the contextual level. The latter kind of orientation is often referred to as self-transcendence (Nusbaum, 2018), but it can also be conceptualized as unselfishness or altruism (Karami et al., 2020).

In education research, these themes are examined mainly in research on ethical, moral, and religious education. In wisdom research, the moral, ethical, and spiritual aspects of wisdom are often discussed in conceptually or philosophically oriented works and less often in empirical research. For example, discussions on the concepts of *Bildung* (Johansson & Schumann, 2019) and self-cultivation (Peters, 2020) represent philosophical studies related to the ethical-existential dimension (for an example of the philosophical-empirical approach, see Tyson, 2018).

Ferrari and Kim (2019) have suggested different approaches for developing ethical aspects of wisdom on different education levels. They recommend play and imitation for preschool and telling stories about exemplars for elementary school students. Further, in secondary school, exemplars can be reflected in relation to students' own understanding of being a good and wise person in a familiar context. Finally, for universities, they suggest direct instruction and theoretical discussion oriented towards students' future careers in the light of traditions of wisdom.

In school contexts, moral education has been examined in different disciplines. For example, religious education has been suggested to play a role in children's and youths' moral development (Keränen-Pantsu & Heikkinen, 2019). Horowski (2020) suggests that responsibility, knowledge of moral virtues, and building a relationship with God are important themes for moral education. A study by Chester et al. (2019) highlighted the role of health education in young people's moral, social, cultural, and spiritual development. The majority of 3,731 respondents aged 11, 13, and 15 years regarded it as beneficial. Positive perceptions were significantly associated with increased spirituality and self-efficacy and reduced misbehaviour. Moral development has also been studied in sports education, but with mixed findings: in one study explicit training had a positive impact on young athletes (Flynn & LaFrance, 2019), whereas in another study little advancement took place (Schwamberger & Curtner-Smith, 2019). Some studies have focused on the school atmosphere. For example, a Pakistani study found a significant relationship between the moral atmosphere of schools and the moral development of students (Safder & Hussain, 2018).

Philosophy education has also been suggested to support moral development. For example, Faraji et al. (2018) and Di Masi and Santi (2016) have reported a Philosophy-for-Children approach (Lipman, 2003) to be effective in enhancing children's and youths' moral reasoning and behaviour. In addition, teaching philosophical ethics has been suggested to improve moral reasoning in future professionals, such as health care students (Halliday &

Franits, 2006). Torabizadeh et al. (2018) suggest that, for enhancing moral reasoning in the context of ethics, teaching Socratic questioning is a more effective approach than lecturing. Goralnik and Nelson (2017) have combined a care-based and community-focused environmental ethics curriculum regarding wilderness experience in an approach referred to as *field philosophy*. Their research suggests that the approach enhances students' shift from a dualistic to a more complex understanding of ideas, relationships, and the natural world rooted in empathy and moral awareness.

Regarding wisdom studies, in Sternberg's (2001) educational principles related to nurturing wisdom in schools, the ethical dimension is integrated with the cognitive aim of developing critical and dialectical thinking. Sternberg (2012) emphasizes the importance of ethical reasoning and recommends a case study method where students apply ethical principles by being confronted with ethical problems. Similarly, when discussing how education can cultivate wisdom in students, Jakubik (2020, 2023) has called for integrating moral values, ethics, and altruism into study programmes. Some empirical studies in higher education suggest that this might lead to desired effects. For example, in a study by Gurley and Dagley (2021), graduates from such an MA programme in educational leadership scored significantly higher in a test on moral reasoning after completing the programme than they had done in the pre-test before the programme. Another study (Cuyjet, 2020) suggested that developing cultural competence can serve as a means for moral development in college students.

In the field of medical education, Seoane and colleagues (2016) examined a course where students were taught virtues, such as wisdom, humanity, and justice in a clinical context using reflective and contemplative practices, practical exercises, and narratives. After the course, all students reported understanding the important role of virtues in their future practice of medicine, and 90% reported that they would change their professional approach as a result of the course.

The ethical-existential dimension of wisdom is often examined in the context of the Aristotelian concept of *phronesis*, that is, practical wisdom (e.g., Jankelson, 2013; Kemmis, 2012a, 2012b; Kristjánsson, 2014a, 2021; Kristjánsson & Fowers, 2023). Because of its ethical orientation, the concept is highly relevant in this context. In the field of moral education, Kristjánsson (2014, 2020a, 2020b) has argued that the development of phronesis goes beyond learning ordinary skills, requiring the creation of an environment that indirectly provides a kind of blueprint for good life or *eudaimonia*. As methods to nurture moral development, he suggests role modelling, dialogical engagement, good relationships with friends, and also literature and music (Kristjánsson, 2014a, 2014b, 2017, 2020).

Darnell and colleagues (2019) examined phronesis in the light of moral psychology and identified four dimensions that capture the corresponding interrelated functions of phronesis: moral identity, moral emotions, moral

reasoning, and moral decision making and action. Based on this work, Kristjánsson (2021) presented 22 hypotheses and a call for an educational research programme for empirical testing of these hypotheses. From our point of view, especially interesting are two of these hypotheses: 'Phronesis is partly learned through teaching', and 'Phronesis is best developed through a battery of interventions that target its different components'. The former is based on Aristotle's idea that phronesis is an intellectual virtue that can be taught and learned (although Aristotle did not specify the method of teaching for this purpose). As to the latter hypothesis, Kristjánsson (2021) presented the following sub-hypotheses regarding the ethical development of wisdom: (1) moral identity can be developed with the help of role models, direct teaching, and exposure to art and literature; (2) moral sensitivity can be nurtured through service learning and exposure to problematic moral situations; (3) moral emotions are best developed by engaging with 'character friends', dealing with problematic situations, and with the help of music; and (4) moral reasoning can be developed, similarly, through handling problematic situations, and learning from character friends and mentors. While Kristjánsson presents these hypotheses to be tested by educational research, he also observes that many of them have actually already been tested by researchers examining something else. Indeed, also in this chapter, we have presented evidence from many such studies.

There exist but a few empirical studies on pedagogical practices for nurturing phronesis. One such case study by Jankelson (2013) with respect to a supervision group of PhD candidates emphasized the importance of relationships, dialogues, and conversations, contributing to the elements of phronesis. In another intervention carried out in police ethics education (Kristjánsson, 2022, see also 2024) guided discussions about dilemmas in police work were utilized to prepare students to meet real-life quandaries in working life. Students were first introduced to realistic dilemmas and then guided to discuss virtues, values, and emotions related to the dilemmas as well as the pros and cons of each action option. Towards the end of the series of four classes, students were asked to relate their answers to the police code of ethics. However, the intervention turned out to be too short for students to develop a deep understanding of phronesis.

Intezari and Pauleen (2013), in examining teaching wisdom to business students and professionals, suggested that nurturing practical wisdom requires developing what they call wisdom meta-competencies: knowledge and personal knowledge management abilities, intuition and insight, reflection, awareness of knowledge fallibilities, judgement, balanced emotions, ethics, consideration of individual and communal interests, and acting rightly. According to them, for example, reflection can be taught through reflective group sessions, cultural studies can be used for developing ethics, and various practical exercises are useful for learning consideration of individual and communal interests. In general, the pedagogical methods they recommend

engage students in active problem solving and examining things from different perspectives – thus developing the cognitive wisdom dimension as well. Similarly, in a wisdom intervention for a Christian congregation, several methods, such as reading wisdom literature, applying dialogical problem solving in groups, and facilitating practical worksheets, were used with the aim of applying wisdom in practice (McLaughlin, 2016). In the experimental group, an increase in subjective well-being, post-formal thinking and practical wisdom was found.

Jakubik (2021) examined the missions, visions, and values of 14 Finnish universities and found that certain features related to practical wisdom were clearly represented in the examined strategic documents of the universities. Based on the findings, she argues that universities have the potential to cultivate practical wisdom in their students by enhancing collaboration with businesses and society. Here, we find a connection to studies on work-related learning and service learning as learning environments with a potential for students to reflect on their experiences in the light of ethical perspectives. For example, in a study where service learning was integrated with reflective journal writing (Ardelt, 2020), students' wisdom scores increased, whereas they decreased in the control class.

In sum, in education research, it has been suggested that certain school subjects, such as religious education, ethical and moral education, worldview education, philosophy, health education, and sports education could serve the development of moral values and behaviour related to wisdom. However, empirical studies have produced mixed findings, suggesting that these subjects *per se* may not be enough and that the pedagogical methods used may also play an important role. Wisdom studies have shown that promising methods include providing moral and ethics education situated in students' everyday life, assigning tasks requiring reflective critical thinking and applying ethical principles to ethical problem solving, enabling a supportive environment with dialogical relationships, and setting wise personas as role models. In addition, the use of music and literature is recommended. In higher education, promising findings have also been achieved in experiments that integrated theoretical studies with practical experiences in the context of service learning. Although most interventions seem to have had desired outcomes in terms of developing prerequisites of wisdom, it is evident that deeper growth of the ethical-existential dimension requires not only long-term pedagogical attention and wisdom-oriented environment but also life experience.

6.2.4 Developing the action dimension of wisdom

The action dimension of wisdom is related to will, motivation, and conation; it involves applying one's pro-social values in practice. Thus, it is always

intertwined with one or more of the other three dimensions. The core of this dimension is acting wisely, which manifests itself as self-cultivation within the individual domain and as ethical action in the contextual domain.

In educational research on learning and teaching, the concept of *agency* is often used when studying students' or workers' actions. Agency appears not only in individual characteristics, such as competence beliefs, self-efficacy, active participation, interest and motivation, but also in contextual and relational features, such as opportunities to influence and make choices (Eteläpelto et al., 2013; Jääskelä et al., 2020; Vähäsantanen, 2022). The concept of agency itself does not directly include ideas related to wisdom, but the action dimension of wisdom requires exercising agency. For this reason, educational research on the agency is a relevant starting point for examining the development of this dimension of wisdom. Several studies in higher education have shown that constructivist learning environments and student-centred teaching that involves students in active learning, problem solving, reflection, and collaboration foster the development of agency (Jääskelä et al., 2020; Moate & Ruohotie-Lyhty, 2014; Toom et al., 2017). Similarly, integrative pedagogy, where theoretical study is connected with practice in the form of work placements, work-related projects, and community service learning, for example, has proven promising for the development of characteristics related to agency (e.g., Billett, 2015; Tynjälä et al., 2022b). Thus, there is evidence to assume that similar pedagogical approaches may also nurture the action dimension of wisdom.

In wisdom research, the concept of phronesis (practical wisdom) is present not only in the ethical-existential dimension but also in the action dimension. Kemmis (2012b, p. 158) claims that phronesis can be developed through morally committed action, referred to as *praxis*. He suggests that phronesis is gained 'through experiences in which people have aimed to "do" praxis in the individual and collective sense: the good for each one and the good for humankind' (Kemmis, 2012b, p. 158). Kemmis believes that phronesis cannot be taught directly, but people can be encouraged to engage in individual and collective praxis and reflect on it. Further, he emphasizes that people also learn from others' experiences.

The relationship between phronesis and praxis is a two-way street. It can be thought that phronesis guides ethical virtuous action since it provides the cognitive framework for discerning what is virtuous and what is not. However, doing good and acting in a virtuous way simultaneously enables and promotes practical wisdom. This implies that engaging in virtuous actions, such as acts of kindness, compassion, fairness, and integrity, can actually enhance and cultivate one's practical wisdom. In other words, there seems to be a circular relationship between practical wisdom (phronesis) and virtuous action (praxis). We suggest that these two concepts are intertwined and mutually reinforcing, with each serving as both a foundation and a catalyst for the other.

Some researchers have examined phronesis in the context of professional practice, and many of them link reflection to moral action. For example, Kinsella (2012) has argued that phronesis clearly involves reflection. Further, like some other wisdom scholars (e.g., Jankelson, 2013; Kemmis, 2012a, 2012b), she suggests that phronesis cannot be explicitly taught, but that it is possible to arrange experiences that encourage a disposition towards wisdom. Here, educational approaches emphasizing guided reflective activities are undoubtedly useful (e.g., Grossmann et al., 2021; Kurunsaari et al., 2015; Yeh et al., 2023) and, again, there is a clear consistency between educational research and wisdom studies.

In the field of medical education, Kaldjian (2010) suggested that the integration of clinical judgement, communication with patients, practice with more experienced colleagues, and ethical reasoning are important. Here, we can see connections to practice-based education (e.g., Kemmis, 2012a), work-integrated learning (e.g., Billett, 2015; Kyndt et al., 2022; Tynjälä et al., 2022b), and service learning (Gardner, 2021; Tijsma et al., 2020), suggesting that connecting theory and practice through problem solving and reflection on experiences is conducive to wisdom development. For example, a recent case study on sustainable management education (Lähteenkorva et al., 2025) supports this notion. In the course, student teams collaborated with businesses in managing and assessing their social and environmental impact. The course integrated theoretical study on impact assessment with a practical project carried out by teams in partner companies and reflective journal writing. The findings showed that cognitive manifestations of wisdom development appeared most frequently and that they often co-occurred with experiences of ethical action. In a study on teacher education by Stenberg and Maaranen (2022), it was found that elements supporting the development of practical wisdom appeared when students became aware of their pedagogical beliefs and how they manifested in practice. Based on their findings, the researchers concluded that it is important to develop learning situations where theoretical and practical knowledge are brought together and students can apply their beliefs in practice.

Self-cultivation and growth orientation related to the action dimension of wisdom was empirically examined in the previously mentioned study by Ardelt (2020) in university courses called growth classes. Instead of exams, these courses included a service-learning project and/or other assignments to practice selflessness and compassion, as well as reflection on experiences through journal writing. The findings showed increased wisdom and psychological growth in students attending the growth classes, whereas the corresponding scores of students in control classes decreased. It was concluded that wisdom and psychological growth can be learned in university courses.

Altogether, educational research and wisdom studies have presented several methods for cultivating the action dimension of wisdom. In these fields,

research on agency, work-integrated learning, and wisdom seem to overlap, with a shared emphasis on learner-centred pedagogy involving diverse agency-promoting methods, such as problem solving, reflective activities, collaboration, work placements, and service learning. Equally important are opportunities to influence and make choices, and an environment that encourages a disposition towards the common good, as expressed through the concepts of phronesis and praxis.

7 Teaching for Wisdom Model (TWM)

Based on the HWM and the literature review on pedagogical practices contributing to wisdom development described above, we now present our TWM in Figure 7.1. This model can be seen as parallel and complementary to the HWM. Together, the two models deepen our understanding of the nature of wisdom and how to nurture the development of wisdom in education.

The starting point of the TWM presented in Figure 7.1 is the multifaceted picture of the concept of wisdom of the HWM, which, in turn, is based on a synthesis of wisdom models and metamodels presented by several other scholars (e.g., Ardelt, 2003; Baltes & Staudinger, 2000; Glück et al., 2019; Grossmann et al., 2020; Karami et al., 2020; Thomas et al., 2022). The HWM summarizes a wide spectrum of wisdom research and presents four main dimensions of wisdom that are common to most of the wisdom models: cognitive, affective-social, ethical-existential, and action dimensions, which are integrated by the individual's agency in specific contexts. As stated earlier, although these four dimensions of wisdom can be differentiated on an analytical level, in actual wise action they are inseparable, reflecting their deep interconnections. For this reason, we believe that in educational settings it is important to adopt a holistic and integrative approach in efforts to nurture the attributes related to wisdom. For example, classroom teaching focusing merely on cognitive skills, such as higher-order thinking, without simultaneous attention to affective, ethical and action dimensions will not bring about wisdom-related learning. Thus, pedagogy for developing wisdom requires the integration of diverse methods focusing on different dimensions of wisdom.

The core of Figure 7.1 represents the *ethical-existential dimension* of wisdom. While all four components of the HWM are equally important, this dimension has a specific role: according to the model, ethical reflection and orientation towards the common good can be seen as necessary elements of wisdom; ethics and morals are always present in wise thinking and action. The other components of wisdom – cognitive, affective-social, and action dimensions – are connected with the ethical-existential dimension and simultaneously with each other. The dashed lines and arrows in Figure 7.1 describe these tight interrelationships between the four dimensions of wisdom. The

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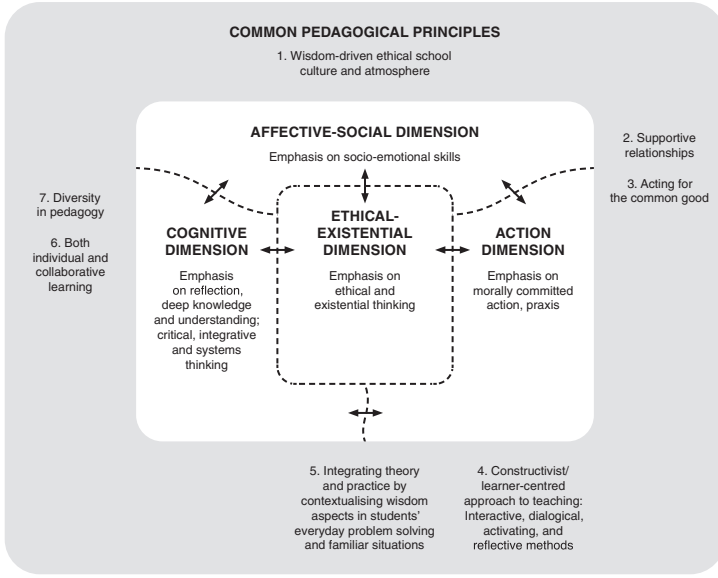

Figure 7.1 Teaching for Wisdom Model (TWM). Pedagogical principles for nurturing wisdom in educational contexts.

white rectangle in the figure presents the main pedagogical emphasis for each dimension of wisdom. For example, teaching methods emphasizing ethical and existential thinking are likely to nurture attributes associated with the ethical-existential dimension of wisdom, whereas pedagogy focusing on presenting factual knowledge or involving students in critical thinking activities has more impact on the cognitive dimension. Based on this review, our hypothesis is that the use of various pedagogical approaches combined with ethical aspects is likely to foster integrated wisdom development.

The main findings of our review are summarized in the outer rectangle of Figure 7.1: seven principles of wisdom pedagogy common to all four dimensions of wisdom. These principles are deduced from the pedagogical practices identified in the research literature. The principles suggest that (1) creating a wisdom-driven ethical school culture and atmosphere that fosters respect, care, and moral action between the members of the school community is a prerequisite for any pedagogical endeavour to succeed. (2) Supportive relationships between teachers and students as well as (3) acting for the common good are important manifestations of this kind of culture. As to concrete teaching practices, (4) constructivist or learner-centred approaches with interactive, dialogical, activating, and reflective learning methods are recommended to be integrated with direct teaching and reading. It is also (5) important to

Table 7.1 Examples of pedagogical practices conducive to wisdom development suggested on the basis of learning research and wisdom research

Examples of pedagogical methods and practices proven especially promising	***Key areas of development***
- Direct instruction, lectures and readings integrated with learning tasks requiring reflective, critical, multi-perspective, integrative or systems thinking - Problem solving; integrating academic and practical learning by project-based and problem-based learning, work-related and service learning - Mentoring - Feedback from others *In sum: diverse pedagogy with emphasis on thinking skills*	*Cognitive dimension*, including attributes such as: - Deep factual knowledge and understanding of life - Reflection - Integrative and critical thinking - Systems thinking
- Supportive atmosphere and social environment - Exercises focused on perspective-taking, emotional skills, empathy, and altruism - Interactive and collaborative forms of learning - Reflective activities such as writing, case discussions and narrative simulations - Service learning and holistic growth classes - Meditation practices *In sum: diverse pedagogy with special attention to socio-emotional skills*	*Affective-social dimension,* including attributes such as: - Compassion - Socio-emotional skills and regulation
- Ethical and moral education; direct teaching - Applying ethical principles to real life ethical problems; reflection on exemplars - Exercising ethical reasoning and dialogical engagement - Supportive environment, role modelling - Service learning, work-related learning + reflection on experiences from different perspectives - Literature and music *In sum: diverse pedagogy with special attention to ethical-existential thinking*	*Ethical-existential dimension*, including attributes such as: - Orientation towards common good - Responsible values - Committed philosophy of life
- Environments encouraging a socially responsible disposition and agency for the common good (e.g., service-learning and work-related projects, work placements + reflection on experiences in the light of theoretical knowledge) - Dealing with problem situations - Cultural studies - Student-centred learning with active problem solving, reflection, and collaboration - Growth classes and examining things from different perspectives - Mentoring, role models *In sum: diverse pedagogy with emphasis on morally committed action, praxis*	*Action dimension*, including attributes such as: - Self-cultivation and growth orientation - Using wise ways of action - Wise advice to others

integrate theory and practice in teaching and learning by contextualizing wisdom aspects in students' everyday problem solving and familiar situations. The findings of our review also show that (6) both individual and collaborative learning tasks are needed in order to provide students time and space for individual reflection as well as working with others. In sum, (7) diversity in pedagogy, that is, the use of different kinds of teaching and learning methods, is important for taking into account all four dimensions of wisdom.

In practice, the seven principles can be applied to several pedagogical practices and methods. Table 7.1 lists, for each dimension of wisdom, examples of specific methods or pedagogical practices that have proven promising in empirical research. It is good to keep in mind that, in the table, the examples are derived only from specific reported studies, and that similar methods may be useful for nurturing characteristics related to other dimensions as well. Furthermore, it is likely that combining different methods may best contribute to a holistic development of wisdom.

8 Conclusions and discussion

8.1 What is wisdom?

In this book, we have searched for answers to questions related to the nature of wisdom and the potential of educational practices for nurturing attributes related to wisdom in students. In this section, we discuss our findings and limitations of the two review studies.

As an outcome of our review of recent major wisdom models, we presented a new metamodel, the Holistic Wisdom Model (HWM). This model has natural similarities with the former four metamodels described in Part I, and we agree with Glück and Weststrate's (2022) observation that there are clear resemblances across different wisdom models. Both a quantitative analysis by Glück and Weststrate (2022) and our qualitative analysis led to more or less similar results. However, in the HWM some crucial conceptual clarifications have been made compared to all former models and metamodels.

First, unlike other wisdom models, we explicated our philosophical conception of the human being as the basis of our theorization. As a starting point, we used Rauhala's (1993, 2005) ontological description of the essential factors that constitute the human being as a threefold entity: embodied, (meta) conscious actor, and situation-bound. This conception also includes an aspect of human potential for human growth and ethical action, and we claim that this comes close to a definition of wisdom as an ideal state.

Second, the constructed four-dimensional HWM model includes a unique combination of subject/person (SP) as the coordinator and context as the out-of-person aspect acting together in a dynamic relationship described as a lemniscate. It may be hypothesized that people differ from each other according to the two polarities of the model; for example, some being more self-oriented and others more context-oriented. These two polarities might also be considered as personal wisdom and general wisdom elements, integrated in the HWM (Staudinger, 2013; Glück & Weststrate, 2022). Although, ideally, wisdom can be seen as constituting a totality of the four dimensions, we do not claim that, in practice, to be a 'wise' person all dimensions must be manifested at the same time. Rather, we assume that different combinations

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of dimensions manifest to lower or higher degrees – which opens interesting avenues for further study. Regarding the personal and general wisdom dimensions, we also stretch the boundaries of the latter. We intentionally use the term 'context' as the out-of-person polarity (Figure 4.1); thus, this also includes larger environments, such as the natural environment, as we are not embedded only in the social environment.

Third, we claim that second-order consciousness ('metaconsciousness') is an important factor in wisdom via self- and value consciousness. Regulation abilities in many forms are essential (e.g., Karami et al., 2020): all subject-based psychological subdimensions of the HWM imply reflection on oneself and one's experiences, emotions, and life philosophy, and they are all included in self-cultivation in the action dimension. In addition, generally, self-cultivation refers to a person's learning and growth orientation. We also claim that the SP factor is prominent (explicitly or implicitly) across almost all wisdom models, although there is a lack of agreement among wisdom scholars on what terms to use for this factor. Though we underscore the subject's position as decision-maker, we do not claim wisdom to be a personality trait, but rather as a decision-making act in the interaction between context and subject polarities. Wisdom does not occur by chance, as the motto of this book states, and we agree here with Webster (e.g., 2003, 2018) who considers wisdom as an intentional endeavour. Furthermore, ethical self-transcendence may be one of the key components of wisdom, on which we agree with Nusbaum (2018) (see also Frankl, 1985; Koltko-Rivera, 2006; Kohlberg's seventh hypothesized moral thinking stage 'Transcendental Morality, or Morality of Cosmic Orientation'(Kohlberg & Ryncarz, 1990); regarding Frankl, 1985 see also Niiles-Mäki & Sadeaho, 2022).

8.2 Limitations related to the HWM

Cultural questions. The results of previous studies regarding how wisdom is understood in different cultures are contradictory. According to Walsh (2015), in the West, a more rational emphasis is typical regarding wisdom, whereas in the East a tendency towards an emotional-experiential interpretation seems to be more common in conceptualizations of wisdom. As regards similarities, for example, the Golden Rule of ethical reciprocity seems to be present in various forms in all major philosophical systems and religions (Fischer, 2015). Also, in their recent article, Rudney et al. (2024) studied folk conceptions of wise minds across 12 countries and found a cross-cultural similarity in understanding wisdom as both a reflective and socio-emotional capacity. Several research articles and books have also recently been published on indigenous non-Western cultures and their wisdom conceptions (e.g., Intezari et al., 2020), most of which have been focused on folk conceptions of wisdom. In this regard, we acknowledge that the HWM is based on research literature of more Western than Eastern origin and, thus, the model may be limited in its applications. In future studies, a broader global comparative perspective should therefore be taken.

Folk conceptions as a basis of wisdom models. In the Appendix (column VII, 2), we report the sources from which the scholars have derived their claims about wisdom. One of the most difficult aspects of research in this area is the question of using folk conceptions as the backbone of wisdom models (e.g., Ardelt, 2004). For example, Kekes (2020) is sceptical of using a 'wo/man-on the-street' approach as a basis of research. Besides Ardelt (2004), Glück and Weststrate (2022) use folk conceptions of wisdom as an argument for their new integrated metamodel. However, in our view, the principal drawback regarding the use of folk conceptions is that common everyday beliefs about phenomena are not necessarily backed by scientific evidence (Kekes, 2020). Therefore, regarding the HWM, in future studies, models and metamodels that are folk-based should be excluded.

Hierarchies of 'better'. Wisdom can be seen as a deeply value-based phenomenon. Garrett (1996, p. 225) has argued that all attempts to justify claims about wisdom '...must sooner or later make various assumptions about metaphysics, about values (both moral and prudential) and about epistemology (especially about what it is to have a justified belief)'. The question of who has developed further or higher in wisdom is one of values: it assumes advancement towards the 'better' based on certain criteria. From a certain viewpoint, these kinds of claims can be seen as discriminative if the normative basis of the claims is implicit (Evans, 2023; Kallio, 2023). Who determines – based on what criteria and on what ideological and axiological assumptions – what is wise action and behaviour?. Whose task is it to define what an optimal developmental goal is? No scholar can be neutral, ideology-free in wisdom research; certain traits and actions are valued over others as wiser. It is also important to ponder whether we are creating an image of the human being that is 'Aryan', forgetting that wisdom is only an ideal, a goal worth seeking. Also, with eudaimonia as the aim of wisdom, there are, again, similar axiological problems. This is a normative concept, referring to values of what is a justified good life. For the defence of the HWM, we can merely note that we have, at least, explicated the value base of our model.

Complexity and cognitive load. Considering any wisdom metamodel, there is also the nagging question of human limitations. Murtonen and Lehtinen (2020) have discussed the problem of complexity increase with respect to cognitive overload. Since there are limits in human cognitive processing capacity, the extent to which human beings can handle the high levels of complexity that wisdom models presuppose remains an open question. It seems that human cognition has its limits and, thus, must work within these boundaries.

8.3 Conclusions regarding the HWM

Based on our critical exploration, we can conclude that wisdom is a multidimensional phenomenon including cognitive, affective-social, ethical-existential, and action-related elements. Much in accordance with Ferrari and

Weststrate (2013), we also consider manifestations of wisdom as dialectically bidirectional involving both an interpersonal and intrapsychic state of mind, both subjective and objective thinking, both self-focused and self-transcendent orientations, both intellectual and mystical features, and, ultimately, imperfection in pursuit of perfection (see also, e.g., Akrivou & Scalzo, 2020). We extend the interpersonal aspect to the wider out-of-person context, including not only social relations but also the broader environment. Wise action can be directed, for instance, to the physical world (e.g., fighting climate change for sustainable ecological development and planetary well-being), to psychological states (e.g. compassion and empathy) or to abstract entities (ethical commitments) (Heikkinen et al., 2024; Smith & Bretherton, 2021).

Although we have not much discussed the neurological or bodily perspective in the HWM, the model acknowledges the fundamental neurological basis of wisdom (Thomas et al., 2021) as well as the embodiment of it. Jeste & Lee (2019) have done preliminary work in this area (see also Darboh, 2023). The bodily perspective is essential to a holistic conception of the human being. We also acknowledge the importance of Rauhala's (1993, 2005) existential-phenomenological approach to study wisdom from the first-person perspective, that is, wisdom as unique, intentional, subjective-experiential processes in wise inner or outward action, as well as embodied wisdom (Smith & Bretherton, 2021).

Sternberg (2019, p. 166) has stated that 'I do not view it as the mission of psychology … to state what constitutes the common good or what ethical values should be viewed as relevant in its attainment'. In contrast to Sternberg, we find it useful to bridge different disciplines and approaches. While the task of empirical scientific research is to understand reality by using scientific concepts, one of philosophy's major tasks is to use thinking and reasoning to analyse these concepts, their logic, and their use. If these two fields do not meet, scientific understanding will lack something essential. Moreover, as wisdom is a cultural concept dependent on humans, the cultural sciences (comparative religion and history, besides cross-cultural psychology) should collaborate. Baltes and colleagues (Baltes & Kunzmann, 2004; Baltes & Staudinger, 2000) have defined wisdom as cultural-collective practical knowledge kept alive in important texts (e.g., classical texts, see e.g., Kim et al., 2022); it is people who maintain it and keep it alive. Although the HWM is based on cross-fertilizing of philosophical and psychological ingredients, we do not claim it to be an exhaustive model. We remind that the construction of the model is based on selected previous models and metamodels of wisdom, and therefore, we suggest future research to expand coverage to wider sources, possibly even all explicit wisdom models (as, e.g., with Sternberg & Karami's, 2021b 6P wisdom model), to enable possible new nuances of wisdom to be captured. The role of motivation is also an important topic to examine in relation to wisdom; of the models described, Baltes' group, for example, refers to it (see Appendix), but any deeper analysis of this matter is lacking in the models

used as a basis of the HWM. In the meantime, we believe that our current model contributes to deepening our understanding of the nature of wisdom and developing empirical research designs based on it.

Wisdom is needed to help people live their lives in a way that is good for them, good for others, and good for the community and the planet. From this viewpoint, our model comes close to the Finnish term '*sivistys*' (a close, but not identical term is *Bildung,* while the closest English equivalent might be to become 'civilized'). Brewis (2023) defines *sivistys* 'both as self-formation (critical thinking, ethical behaviour, orientation to truth) and societal transformation (shared values, ethics, serving humanity)' (2023, p. 1; see also Vogt & Neuhaus, 2021). To meet global and local challenges, it is important to understand not only the nature of human wisdom but also the possibilities of education and learning for the development of it. Thus, we will next discuss the findings of the second part of our exploration, the potential of formal education in nurturing attributes related to wisdom.

8.4 Can wisdom be taught?

Concerning pedagogical practices contributing to wisdom development, most studies have so far been philosophical or theoretical in nature, whereas empirical research has been scarce and only emerging. Therefore, we reviewed not only pedagogical wisdom studies but also general educational psychological research on developing the characteristics belonging to the four identified dimensions of wisdom, such as cognitive and socio-emotional skills. This rich research has provided a diverse collection of pedagogical approaches, methods, and practices that can be used in interventions aiming at nurturing attributes associated to wisdom.

Table 7.1 (in Part II) presents examples of several teaching and learning methods proven promising for developing certain attributes of each dimension of wisdom. These pedagogical approaches have typically been examined separately with respect to some of the four wisdom dimensions. In sharp contrast to this, we emphasize that the dimensions of wisdom are tightly integrated and fused together and, therefore, connecting together the various methods and practices that contribute to the development of wisdom attributes is of central importance in wisdom education, teaching, and learning.

The ethical-existential dimension can be seen as the core of wisdom because it involves a broad understanding of the complexity and diversity of human experience and the pursuit of the common good. In pedagogy, this means that ethical values should direct all education and teaching. Education in ethical and existential aspects of life encourages reflection on the multi-dimensional nature of human existence, including physical, emotional, social, values, and spiritual aspects, which are all considered essential in the pursuit of wisdom. The human–nature relationship is an important aspect of the ethical-existential dimension of wisdom because it reflects our

interconnectedness with the natural world and our moral responsibility toward it. The relationship between humans and nature encompasses the ethical implications of our actions concerning the environment, the moral considerations of our interactions with non-human entities, and the recognition of the intrinsic value of nature beyond its utilitarian value to humans. We are aware that values are highly culturally dependent, but we also believe that there are certain universal values and principles that are widely accepted and expressed in principles, such as the Golden Rule, the United Nations Declaration of Human Rights, and the UN Goals for Sustainable Development.

In their review on teaching wisdom, Ferrari and Guthrie (2014) examined three different approaches to teaching wisdom, emphasizing different aspects of a wisdom curriculum. Similarly, our model emphasizes the need for diverse pedagogical practices and approaches to develop attributes related to different dimensions of wisdom. Thus, diversity in teaching and learning methods is one of the main principles of the Teaching for Wisdom Model (TWM). This variety of teaching and learning methods might include, for example, traditional methods, such as lecturing and reading, as well as more recent methods, such as reflective writing and service learning. The TWM supports both individual learning tasks and collaborative projects. Similarly, it encourages practical exercises in the classroom but also recognizes the value of 'real world experiences' in workplaces, charitable organizations, cultural events, and hobbies. The model is in alignment with work-integrated pedagogical models and service learning (e.g., Billett, 2015; Kyndt et al., 2022; Tynjälä et al., 2022b), which stress the importance of integrating, connecting, and fusing theoretical studies with practical experiences and reflective activities.

Current education systems emphasize cognitive skills as primary, but if we want to educate wise people, we also need to pay much more attention to socio-emotional skills and ethical and moral education. Based on our review study, we believe that in educational practice it is crucial to use a variety of methods for nurturing characteristics related to wisdom. In practice, certain lessons could focus on developing a specific dimension of wisdom, such as the social-affective dimension, while other lessons or courses could have broader goals, aiming at the development of several dimensions. We suggest taking the TWM into account in curricular and pedagogical planning at all education levels so that all children, youth, and adult learners have opportunities to study in ways that have proven useful for the development of wisdom. We propose that any discipline, course, or topic can be taught in a way that nurtures wisdom-related characteristics. Further, we claim that it is possible to design teaching and courses in which all four dimensions of wisdom are featured, from early childhood education to higher education, even without the concept of wisdom itself being explicitly mentioned. For example, in any higher education study programme it could be possible to include a course that integrates the study of professional ethics and practical experience in the form of a work placement, work-related project, or service learning. Prior to

work experience, lectures and group discussions on professional ethics would provide theoretical knowledge that students can later use when reflecting on professional practices during their work experience. For this purpose, students could be assigned writing tasks where they identify ethical problems or dilemmas related to their work and reflect on their observations and experiences in light of the knowledge learned in the classroom. After the work placement, project or service learning, the students could share their experiences with their teachers and peers and receive feedback from them.

Since the TWM is holistic in nature, one might ask what the difference between wisdom pedagogy and general pedagogy is. Our answer is that there is no difference. We believe that attributes related to wisdom can be taught, and that all diverse pedagogy can be wisdom pedagogy. In our view, the ultimate goal of education is to educate wise people.

8.5 Limitations and conclusions related to wisdom pedagogy

A general limitation of the two studies presented in this book pertains to the literature reviews conducted. Because of our intention to examine the nature of wisdom and possible pedagogical practices for nurturing attributes related to wisdom from a holistic perspective, it was impossible to carry out a systematic literature review on these wide topics. Instead, more selective literature searches were applied. The second limitation concerns the pedagogical study in Part II. Both in educational and wisdom research, learning and the development of the attributes related to a certain wisdom dimension are often examined in isolation or distinct from other dimensions. Accordingly, research has so far provided only a partial view of the possibilities for how pedagogy can nurture wisdom in students. However, we suggest that by considering the findings on the different pieces of this partial knowledge (Table 7.1 in Part II) and integrating them into the TWM, as presented in Figure 7.1. (in Part II), it is possible to design pedagogy and learning environments that can support students' wisdom development in an integrated way.

Third, since empirical research on nurturing wisdom has been scarce in wisdom literature until recently, we also used general educational studies focusing on learning the characteristics related to the four dimensions of wisdom. Using educational studies without the wisdom aspect may be seen as a shortcoming regarding the validity of the pedagogical study in Part II. However, this approach can be supported with a suggestion from Kristjánsson (2021, p. 17), who noted that his hypotheses about developing wisdom in educational settings 'have already been tested' in studies that have explicitly focused on something else. Similarly, we believe that educational studies on socio-emotional learning, for example, have produced knowledge that can be applied when aiming at developing affective-social attributes associated with wisdom. The fourth limitation is that we did not differentiate between various

education forms and age groups when suggesting pedagogical practices. This was because we wanted to compile pedagogical practices into a concise format to foster and encourage their utilization. Despite these limitations, we believe that the HWM and the TWM together with the list of examples of useful pedagogical methods can be used as tools for understanding the nature of wisdom and developing wisdom pedagogy. In the future, empirical studies based on the models are welcome.

Appendix

Main psychological dimensions and theoretical assumptions in the wisdom models/metamodels and Holistic Wisdom Model

Main psychological dimensions & subdimensions / authors	***I Definition of wisdom***	***II Cognitive dimension C 1–2 1 = Deep experience / insight A/B[a] 2= Contextual multi-perspective integration***	***III Affective-social dimension (incl. motivation) AS 1–2 1 = Emotional richness / regulation 2 = Prosocial emotions: empathy and compassion***	***IV Ethical-existential dimension EX 1–2 1 = Committed philosophy of life 2 = Self-transcendence, A/Bb***	***V Action dimension A 1–2 1 = Self-cultivation orientation C, AS, EX 2 = Wise ways of action/advice/ behaviour***	***VI Subject/person dimension SP (= assumed self, ego, or similar construct A/B[c])***	***VII Theoretical assumptions 1 = Explication of tacit philosophical conception of human nature and other philosophical assumptions 2 = Source of model/ theorization (folk conceptions, theory, philosophy, empirical observations, etc.)***
1 Ardelt, 2004, 2008; Ardelt and Pridgen, 2022; Gugerell and Riffert, 2011; Clayton and Birren, 1980 *3DW model*	3DWM consists of cognitive, reflective, and compassionate dimensions; integrates the essential qualities that are necessary but also sufficient for a person to be considered wise (Ardelt & Pridgen, 2022).	1,2 Cognitive: 'The deeper insight, knowledge, and understanding of the intrapersonal and interpersonal aspects of life' … 'self-reflection, and self-examination' (Ardelt & Pridgen, 2022, p. 140) and perspective taking (Ardelt & Pridgen, 2022)	1,2 Compassion (Benevolence): 'understanding and tolerance of others, resulting in the sympathetic and compassionate love' (Ardelt & Pridgen, 2022, p. 140)	1 Not found. 2 Implicit in AS	1 Personality development crucial for deeper self-understanding and mature adult development. Self-development through selflessness (Ardelt, 2004, 2008). 2 Not found.	Wisdom is personality-based. '...personality quality, then it is likely to be relatively stable, at least in the short term ... without precluding the possibility of change in the long term' (Ardelt & Pridgen, 2022, p. 135)	1 Not found. Philosophical analysis e.g., by Gugerell and Riffert (2011). 2 Model traced originally from folk wisdom conceptions study by Clayton and Birren (1980).

(*Continued*)

(Continued)

Main psychological dimensions & subdimensions / authors	*I Definition of wisdom*	*II Cognitive dimension C 1–2 1 = Deep experience / insight A/B[a] 2= Contextual multi-perspective integration*	*III Affective-social dimension (incl. motivation) AS 1–2 1 = Emotional richness / regulation 2 = Prosocial emotions: empathy and compassion*	*IV Ethical-existential dimension EX 1–2 1 = Committed philosophy of life 2 = Self-transcendence, A/Bb*	*V Action dimension A 1–2 1 = Self-cultivation orientation C, AS, EX 2 = Wise ways of action/-advice/ behaviour*	*VI Subject/person dimension SP (= assumed self, ego, or similar construct A/B[c])*	*VII Theoretical assumptions 1 = Explication of tacit philosophical conception of human nature and other philosophical assumptions 2 = Source of model/ theorization (folk conceptions, theory, philosophy, empirical observations, etc.)*
2 Baltes and Staudinger, 2000 *Berlin (general) wisdom model (BeWM)*	Wisdom as excellence of mind and virtue: '…as an expert knowledge system concerning the fundamental pragmatics of life. These include knowledge and judgment about the meaning and conduct of life and the orchestration of human development toward excellence while attending conjointly to personal and collective well-being' (Baltes & Staudinger, 2000, p. 122)	1 Basic criteria: Rich factual/procedural knowledge; expertise-, and experiential knowledge; 'knowledge about oneself' (Baltes & Staudinger, 2000, p. 124) 2. Meta-criteria: lifespan contextualism, relativism of values and life priorities, and recognition and management of uncertainty (Baltes & Staudinger, 2000, p. 124)	1 (Partly implicit): '...characterizes wisdom as a cognitive and motivational metaheuristic...' (Baltes & Staudinger, 2000, p. 122) 2 (Implicit in collective well-being).	1 Value relativism with commitment to general good 'Wisdom, of course, is not meant to imply full-blown relativity of values and value-related priorities. On the contrary, it includes an explicit concern with the topic of virtue and the common good. Recognition of certain universal values, value-relative knowledge, judgment, and advice' (Baltes & Staudinger, 2000, p. 126) 2 Intention to collective well-being (Baltes & Staudinger, 2000, p. 126)	1 '…intense process of learning, practice, as well as the motivation to strive toward excellence' (Baltes & Staudinger, 2000, p. 127) 2. Wise way of action/advice giving is based on pragmatics of life, i.e., life experiences, development of expertise in any field (Baltes & Staudinger, 2000)	'General person factors as relevant to development of wisdom as antecedents… (Cognitive Mechanics, Mental Health, Cognitive Style, Creativity, Openness to Experience, Ego Strength) (Baltes & Staudinger, 2000, p. 125)	1 Not found. 2 Based on 'cultural-historical analysis' (Baltes & Staudinger, 2000, p. 122). 'In our conception, wisdom is fundamentally a cultural and collective product in which individuals participate. Individuals are only some of the carriers and outcomes of wisdom'. (Baltes & Staudinger, 2000, p. 127). Partly based on theorization of adult postformal thinking.

3 Mickler and Staudinger, 2008 *Bremen (personal) wisdom model BrWM*	Personal wisdom (PW) focuses on judgment and advice regarding difficult and uncertain matters of one's own life; 'self-wisdom' (Mickler & Staudinger, 2008)	1. Self-knowledge. 'A self-wise person is aware of his or her own competencies and weaknesses, emotions, and goals and has developed a sense of meaning in life' (Mickler & Staudinger, 2008, p. 788) 2 Tolerance of ambiguity; management of the uncertainties in one's own life and one's own development. Good judgement. Development of flexible solutions. Self-distancing. Contextualism, interrelatedness (Mickler & Staudinger, 2008)	1 'Positive and negative emotions' 'how to express and regulate emotions' (Mickler & Staudinger, 2008, p. 788) 2 (Partly implicit: '... self-wise person knows ... how to develop and maintain deep social relations') (Mickler & Staudinger, 2008, p. 788).	1 (Contextual) value relativism: 'They are able to tolerate others' values as long as the balance between their own good and that of others is kept'. (Mickler & Staudinger, 2008, p. 788) 2 '...one considers the well-being of other people and society' (Mickler & Staudinger, 2008, p. 787)	1 Inner work and introspection. 'The second basic criterion is that a self-wise person knows heuristics of growth and self-regulation (e.g., how to express and regulate emotions or how to develop and maintain deep social relations)'. (Mickler & Staudinger, 2008, p. 788). '…personality maturity is reached once one's own interests and potentials are realized' (Mickler & Staudinger, 2008, p. 787) 2 'Wisdom may encompass ... behavioral component' (Mickler & Staudinger, 2008, p. 787)	Mature personality. 'PW as one possible indicator of personality maturity' (Mickler & Staudinger, 2008, p. 787)	1 Not found. 2 'We systematically reviewed approaches to the conceptualization of personality growth and personality maturity from the developmental, clinical, and personality literature ... we developed a performance measure of PW based on the Berlin wisdom paradigm … and adapted it to include the personal side of wisdom using conceptions of personality maturity…' (Mickler & Staudinger, 2008, p. 787)

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4 Glück et al., 2019; Glück and Bluck, 2013 *MORE developmental wisdom model*	Personal growth from negative experiences with inner resources. Wisdom is based on interaction of (critical) life experiences with four resources: openness, reflectivity, emotion regulation, and sense of mastery. (Glück & Bluck, 2013)	1,2. Reflectivity: to reflect deeply on experiences, striving to see the 'big picture', to identify larger themes (Glück & Bluck, 2013) 2 Openness: 'Wise individuals are aware of the fact that there are multiple perspectives on every phenomenon, and they are interested in learning from new perspectives and from other people' (Glück & Bluck, 2013, p. 80)	1 Emotional sensitivity. Emotion regulation 'Our conception of the "E" resource ... an attentiveness and sensitivity to the feelings of oneself and others and the ability to regulate them, so as to remain (relatively) calm and to calm down others in challenging situations'. (Glück et al., 2019, p. 361) 2 Empathy.	1,2 Not found	1 Personal growth from negative experiences and reflection on them. Ability to learn from multiple perspectives. 2 Mastery: 'Sense of mastery, as defined here, is an inherently dialectical concept entailing active control but also the acceptance of uncontrollability, and the ability to balance these two' (Glück & Bluck, 2013, p. 80). 'Wise individuals are able to take action on things that they can control and accept things that they cannot control' (Glück et al., 2019, p. 350)	Implicitly assumed personality trait with interaction of context: 'wisdom is not only determined by a person's stable personality but also by situational context' (Glück et al., 2019, p. 365)	1 Not found 2 Background is in previous research and theory on wisdom, lifespan development, growth from negative experiences, autobiographical memory, and the life story. MORE model is based on empirical data (Glück & Bluck, 2013)

5 Sternberg, 1998, 2019 *Balance wisdom model BWM*	Wisdom as a triad with intelligence and creativity. Wisdom is viewed as the use of tacit knowledge as mediated by positive ethical values toward the goal of attaining a common good. A balance between multiple interests. (Sternberg, 2019a, 2019b)	1. Tacit plus formal knowledge and creativity (Sternberg, 1998) 2 A balance among multiple intrapersonal, interpersonal, and extra personal interests, to achieve a balance among adaptation to existing environments, shaping of existing environments, and selection of new environments (Sternberg, 1998)	1 Regulation implicit in consideration of perspectives and goals 2 (Implicit in above)	1 '...wisdom always involves … positive ethical values'. (Sternberg, 2019b, p. 168) 2 In order to attain a common good (Sternberg, 1998)	1.. see C, AS, EX 2 '...wisdom always involves the exercise of positive ethical values'. (Sternberg, 2019b, p. 168)	As self-based regulation.	1 Some philosophical hints, e.g., to Aristotle, with his idea of *telos* as goal of action (for common good) and dialectical balance (Sternberg, 1998). No explicit image of human being. 2 Theorization of tacit knowledge as practical intelligence; theorization of balance between opposites; former analysis of creativity and intelligence (Sternberg, 1998)
6 Levenson et al., 2001; Levenson et al., 2005; Levenson and Aldwin, 2013; Aldwin et al., 2019* *Self-Transcendent wisdom model STWM*	'...developmental process leading to liberation from external definitions of the self… 'quieting of the ego' or 'ego-transcendence' (Aldwin et al., 2019, p. 126)	1. 'Self-knowledge is the awareness of the sources of one's sense of self. The sense of self arises in the context of roles, achievements, relationships, and beliefs. It is also a sense of enduring duality that we conceptualize as self and other' (Levenson et al., 2005, p. 128) 2. (Implicit) Self-transcendence includes the ability to see perspectives beyond oneself, non-self)	1. 'The third is the affective component, which includes joy, inner peace, and awe…serenity' and also feeling of healthy loss (of ego) (Aldwin et al., 2019, p. 137; Levenson et al., 2001). 2. (Partly implicit) 'acts of generosity, truthful speech, avoidance of doing harm' (Levenson & Aldwin, 2013, p. 214)	1 Change of whole life-philosophy from ego-centred to quieting the ego (Aldwin et al., 2019) 2. Self-transcendence as core of model 'to subsume one's one egocentric desire for the greater good of others' (Aldwin et al., 2019, p. 126)	1, 2 Various self-cultivation methods. 'Contemplatives are specialists in development toward the transpersonal, expressed in practices (meditation, acts of generosity, truthful speech, avoidance of doing harm' (Levenson & Aldwin, 2013, p. 214)	Self is precondition, but also object to transcend. Liberation from external definitions of the self, ego lessness, but 'recognizing self as one's identity, which has some practical usefulness…' (Aldwin et al., 2019, p. 126)	1. No explicit human nature conception 2. Based on Curnow's* (1999) philosophical work and Tornstam's (1994) work on ego-transcendence. Also traced from Buddhism, Sufism and some Christian contemplative traditions (Levenson & Aldwin, 2013)

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7 Bassett, 2005, 2006, 2011a, 2011b, 2015 *Emergent Wisdom Model EWM*	The major components are discerning, empathizing, engaging, and being (Bassett, 2006)	1 Being (Reflecting). Self-awareness. Self-knowledge. (Bassett 2011a, 2011b)) 2 Discerning. (Cognitive) & Being (Reflecting). Objectivity, discernment. Factual knowledge. Deep understanding of causes, consequences, relationships. Holistic thinking. Perspectives. Tolerating ambiguity and paradox (see also AS1,2). (Bassett, 2006, 2011a, 2011b. 2015).	Empathizing (Respecting) 1 Multiple-perspective thinking (Bassett, 2011a) 2 Empathy. Respect. (Bassett, 2011a)	1 Engaging (active). Moral courage and integrity. (Bassett, 2011a) 2 Engaging (active). Just and fair actions for common good. (Bassett, 2011a)	1 'a higher order consciousness needs to develop' (Bassett, 2005, p. 10) 2 Engaging (Active). 'a person cannot be considered wise unless he or she shows repeated instances of the kind of behavior that is associated with wisdom, over time and in different kinds of circumstances' (Bassett, 2015, pp. 138–139). Just and fair actions for common good. (Bassett, 2011a)	Self as seen part of complex systems (i.e., in all wisdom components) (Bassett, 2011a, 2011b). the self, the interior of a person, owns itself, instead of having the parts of that self-governed by the unconscious beliefs of the psychological surround. This means that we move out of an orientation of being shaped by the expectations around us' (Bassett, 2005, p. 10)	1 Not found. 2 Based on GT qualitative interview of 24 (US) persons.

8 Kristjánsson et al., 2021 *Neo-Aristotelian phronesis wisdom model APM*	'Phronesis, in the standard model, is quite a complex concept…it includes cognition, affect, motivation, and behavioral components…' (Kristjánsson et al., 2021, p. 246)	1. Deliberative ability, reflection, metacognition based on experience (Kristjánsson et al., 2021) 2. (Moral) decision-making. Reflection. Contextual, multiperspective-integrative thinking. (Kristjánsson et al., 2021, p. 246)	1 … 'infusing emotional experience with reason' … 'persons can be fully virtuous only if they are regularly disposed to experience emotions in this reason-infused way…' 'Motivation'. (Kristjánsson et al., 2021, p. 246) 2 '…emotions in the context of "what promotes living well in general"' (Kristjánsson et al., 2021, p. 245)	1. Life-philosophy of wise actor is commitment to reflected ethical-moral principles 2. '…enabling the individual to 'deliberate finely' about the relative weight of competing values, actions, and emotions in the context of 'what promotes living well in general'. Self-transcendence (Kristjánsson et al., 2021, p. 245)	1. See C, AS, EX 2. Phronesis in action. '...values, actions and emotions' (Kristjánsson et al., 2021, p. 247). '… helping others do the same in virtue of a deep moral understanding of complex human problems' (Kristjánsson et al., 2021, p. 252)	Subject/Person implied. 'The emotional regulative function can then help them adjust their appraisal and emotion by, for instance, giving themself an inner "talking to" or asking themself questions about what is prompting the ill-fitting emotional response'. (See also note 5 in Kristjánsson et al., 2021, p. 247)	1 No explicit human nature conception, but explicit philosophical background in neo-Aristotelian model; ontology, epistemology, methodology of the science of morality explicated. 2 Traced directly from Aristotle's philosophy of phronesis with modern positive psychology, self-determination theory and 'other philosophers'
9 Wink and Helson, 1997; Achenbaum and Orwoll, 1991 *Practical & transcendent wisdom model*	'Practical wisdom [PW]...of good judgment and expertise in the pragmatics of life' (Wink & Helson, 1997, p. 2). Transcendent wisdom [TW]: ... 'thought to be achieved in the process of transcending ego boundaries ..., e.g., process of individuation ... increasing inner awareness' (Wink & Helson, 1997, p. 2)	1 Both PW+TW 'evidence of intrapersonal development" as self-knowledge, integrity. Emancipatory interest (i.e., interest in self-understanding and the freedom of the self)' (Wink & Helson, 1997, p. 3) 2 TW Limits of knowledge (humility), intuition, creativity, flexibility (Wink & Helson, 1997, p. 9)	1 PW+TW Mature affections 2 PW empathy, social skills, social understanding, maturity in relationships (Wink & Helson, 1997)	1 TW 'existential, philosophical-spiritual commitments' (Wink & Helson, 1997, p. 3) 2 TW Transcendence in the meaning of transpersonal and existential (besides developed, mature ego)	1 PW+TW Growth orientation (intrapersonal and existential development) 2 Not found	Wise personality; healthy self-orientation, developed ego/self	1 Not found 2 Based on Achenbaum and Orwoll (1991) (inter-, intra- and transpersonal wisdom); postformal development models; personality theories

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10 Brugman, 2006 *Epistemic Wisdom Model*	'...three components: meta-cognition, personality/affect, and behaviour' (Brugman, 2006, p. 457)	1 (Implicit in metacognition) 2 Metacognition. Openness to experiences, tolerance of ambiguity. Expertise in uncertainty. Dialectical thinking (Brugman, 2006).	1. 'Emotional stability is necessary for the individual to cope effectively with uncertainties and to be resigned to unpredictability or the loss of control' (Brugman, 2006, p. 455) 2. Not found	1 Scepticism as committed philosophy of life; not to be fixed to any claims of knowledge. 2 Not found (virtues not acknowledged)	1 see C, AS, EX 2. Being capable of action in the face of uncertainty. Outer behaviour. (Brugman, 2006)	Link to personality via affects: 'emotional stability despite uncertainty' (Brugman, 2006, pp. 455, 457)	1 No explicit human nature conception. Otherwise, background in sceptical philosophy explicated. 2. Philosophy of Sceptics, D. Hume, plus modern psychological claims (e.g., adult cognitive models) (Brugman, 2006)

11 Walsh, 2011, 2015* *Cross-cultural and cross-disciplinary synthesis wisdom model*	'Wisdom is deep accurate insight and understanding of oneself and the central existential issues of life, plus skillful benevolent responsiveness' (Walsh, 2015, p. 282). There are more than one or two subtypes of wisdom (Walsh, 2015)	1. Deep insight (either metaphysical or psychological). Both tacit and explicit knowledge. Self-knowledge. Trans-conceptual and/or conceptual knowledge (Walsh, 2015) 2. The capacity to recognize and integrate many perspectives. Epistemic humility. Postformal thinking. (Walsh, 2015)	1,2 Not found (Walsh, 2015)	1 Central, fundamental existential questions must be pondered and reflected on => philosophical commitments (Walsh, 2015) 2 Central intention of the wise is to benefit people by reducing suffering and enhancing wellbeing, good life (Walsh, 2015)	1 '...contemplative disciplines have developed specific practices and inner technologies to cultivate these states and their insights' (Walsh, 2011); 'In the West, traditional approaches included reflection (e.g., Marcus Aurelius), contemplation (e.g., the Desert Fathers), and moral dialectic, which is dialogue aimed at mutual edification (e.g., Socrates & Seneca)'. 'Also depth psychotherapies, self-actualization, authenticity and individuation' (Walsh, 2015). 2 Skilful benevolent responsiveness (towards others) as practical wisdom (Walsh, 2015)	Subject/self seems to be necessary condition, but its ontological status may vary according to cultural tradition (Self/non-Self).	1 Conception of human being not explicit, though philosophy is discussed. 2 Cross-cultural and cross-disciplinary theoretical approach; based on review of Eastern and Western philosophies, psychologies, and contemplative approaches (Walsh, 2015)

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12 Yang, 2001, 2008, 2017, 2020* *Process model of wisdom*	Wisdom emerges in a specific context within a specific period through the interaction between an individual and a real-life situation. The process has three structural components: cognitive integration, embodying action, and positive effects for oneself and others (Yang, 2017)	1 Experiential knowledge: 'in understanding life and dealing with human affairs' (Yang, 2001); 'experience and knowledge in specific life domains' (Yang, 2020) 2 Cognitive integration: 'the integration of what are usually considered to be separate systems' (Yang, 2001). Creativity ('unusual integration') (Yang, 2017)	1 Not found 2 (To generate prosocial emotions: 'persons whose embodiment generates positive effects not only for themselves but also for others at the individual, familial, communal, societal, or even global levels are often credited with greater wisdom') (Yang, 2017, p. 228)	1 (See column VII, 1: Worldview/ human conceptions have influence on wisdom research claims) 2 Self-transcendence: Effects benefit oneself, but also help to achieve the common good in the long run (Yang, 2008)	1 see C, AS, EX 2 Embodiment: wisdom expresses itself in embodied action as positive effects.	Subject as an agent, but not as a constant basis for wisdom. '... no prescribed set of internal qualities can consistently lead a person to display wisdom across all situations' (Yang, 2020, p. 2).	1 Worldview/human conceptions have influence on wisdom claims: 'Members of different cultures may have different worldviews and, hence, different conceptions about the essence of being human.... These differences can influence how we define wisdom" (Yang, 2020, p. 142) No specific analysis of implied human conception in their studies, however.

							2 Partly based on empirical studies of implicit/folk conceptions of wisdom. (Yang, 2001, 2008). Cross-cultural views: Two different subtypes of wisdom: a more Western person-based view and a more Eastern endeavour-based view (Yang, 2020)
13 Webster, 2003, 2014 diss.; Webster et al., 2018 *HERO(E) optimal development model*	'...the competence in, intention to, and application of, critical life events to facilitate optimal development in self and others' (Webster, 2014, p. 11). 'consisting ... critical life experiences, humor, reminiscence/ reflectiveness, openness to experience, and emotion regulation'. (Webster et al., 2018, p. 119)	1 Reflectiveness on one's personal past to gain perspective, 'know thyself", introspection (Webster, 2014) 2. Part of the openness dimension is appreciation of multiple perspectives even if they are controversial; tolerance of others (Webster, 2014)	1 'Exposure to, and appropriate regulation of, the full spectrum of human emotions' (Webster, 2014, p. 13) Use of humour. 2 Concern for oneself and others as well. Ability to judge emotions also in others (Webster, 2014)	1 'Wise persons have…a strong philosophical and moral base which serves to guide thought and behaviour' (Webster, 2014, p. 23) 2 Concern for others (Webster, 2014) 'enhance the well-being of both themselves and their broader community' (Webster et al., 2018, p. 119)	1 Optimal development of self via reminiscence and reflection 2. Application in life is part of wisdom. '…apply that knowledge in ways that enhance the well-being of both themselves and their broader community' (Webster et al., 2018, p. 119)	Intentionality of subject/agent as necessity. 'Although certain cognitive subroutines related to expertise may unfold automatically… wisdom has intentionality. That is, wisdom is not an accidental byproduct of some process or an epiphenomenon of some unrelated actions'. (Webster, 2014, p. 11)	1 Not found 2 According to Webster (2003), the model is derived from previous empirical and (partly) theoretical wisdom research.

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14 Takahashi and Overton, 2002, 2005 *Relational-developmental model of wisdom*	'...two modes of wisdom: the analytical [AW] (i.e., knowledge database, abstract reasoning), and the synthetic [SW] (i.e., reflective understanding, emotional empathy, and emotional regulation)' (Takahashi & Overton, 2002, p. 269); integration/ transformation of various aspects of human consciousness (Takahashi & Overton, 2005, p. 36) SW divided into transformational and integrative forms (Takahashi & Overton, 2002, p. 270)	1 SW Intuitive processes; reflective understanding 2 AW knowledge database and efficient information processing skills; SW Integration of separate processes (Takahashi & Overton, 2002)	1 SW emotional regulation (Takahashi & Overton 2002, p. 269, 271) 2. SW emotional empathy and understanding (Takahashi & Overton, 2002, pp. 271–272)	1 'Consistent with the traditional Eastern views of wisdom as an "expansive" mental process, the claim is made that with the synthesis that ultimately arises out of the several transformations of consciousness the intrinsic reward of being comes to be experienced through a sense of appreciation and a sense of purpose in one's existence and life' (Takahashi & Overton, 2002, p. 270) 2. Not found	1 SW Practical self-cultivation methods (esp. in Eastern forms of yoga etc.) (Takahashi & Overton, 2005, p. 37) 2 In AW other forms of practical wisdom. '(e.g., solving problems, making judgments, etc.)'. (Takahashi & Overton, 2005, p. 43)	'… broadly defined in Erikson's theoretical framework, ...form of ego, or level of consciousness' (Takahashi & Overton, 2002, p. 270); personality.	1. Sparse theoretical notions of different worldviews. 2 Erikson's developmental theory. Cross-cultural studies of implicit wisdom folk conceptions; Eastern traditions (Hinduism, Buddhism, Confucianism, and Taoism) and Western ones; empirical wisdom research in its early phases (Takahashi & Overton, 2005).

15 Brown, 2004; Brown and Greene, 2006 *Model of wisdom development*	'...seven dimensions: Self-Knowledge, Emotional Management, Altruism, Inspirational Engagement, Judgment, Life Knowledge and Life Skills' (Brown & Greene, 2006, p. 15) (see also Brown, 2004)	1 'Self-knowledge ... three main components: a conscious understanding of one's own values, talents, multiple identities, interests, sense of purpose, morals and ethics' (Brown, 2004, p. 137) 2 Ability for judgement and 'assessment of the situation and context, reflection on options, synthesis of multiple perspectives, consideration of consequences, and making good decision ... ability to learn' (Brown, 2004, p. 138).	1 Emotional management 'affective dimension' (Brown & Greene, 2006, p. 16) 2 Altruism and Inspirational Engagement.	1 '…self-knowledge… as a conscious understanding of one's own values… morals and ethics' (Brown, 2004, p. 137) 2 Willingness to use one's spheres of influence for the common good (Brown, 2004, p. 137)	1 See C, AS, EX 2 Not found in 2004, but altruism mentioned in 2006: interpersonal skills and social unobtrusiveness, sagacity (Brown & Greene, 2006, p. 16)	Self is an essential actor: '…reliance on an internal locus of success and the ability to maintain a personal authenticity in a variety of contexts; and personal confidence and self-efficacy…' (Brown, 2004, p. 137). 'The wisdom model also relates to self-authorship' (Brown, 2004, p. 142)	1. Not found 2. Derived from interviews analysed by GT, partly on implicit folk-conceptions of wisdom (Brown, 2004) and further statistical analyses (Brown & Greene, 2006).

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Metamodels							
1 Bangen et al., 2013; Lee and Jeste, 2019; Jeste et al., 2021; Thomas et al., 2022 (*) *San Diego model of wisdom*	'Wisdom is a personality trait comprising seven components: self-reflection, pro-social behaviors, emotional regulation, acceptance of diverse perspectives, decisiveness, social advising, and spirituality' (Thomas et al., 2022, p. 617)	1. '…self-reflection ... the desire and ability to understand oneself and one's actions at a deeper level. ... understanding one's own thoughts, motivations, and behaviors'. (Thomas et al., 2022, p. 618). Insight. General knowledge of life (Thomas et al., 2022) 2 Acceptance of divergent perspectives, values (Jeste et al., 2022)	1 Emotional regulation, homeostasis (Thomas et al., 2021). Humour. 2 Pro-social emotional richness e.g., empathy, compassion, warmth, altruism, and a sense of fairness, humour (Thomas et al., 2021)	1 Spiritual life-philosophy: Connectedness with oneself, with nature, or with the transcendent, such as the soul or God. (Jeste et al., 2021) 2 For common good.	1 See C, AS, EX 2. Decisiveness component, i.e. the ability to make decisions in a timely manner. Social advising component, i.e. the ability to give good advice to others. Socially benefiting larger systems (Jeste et al., 2021)	Personality trait (Thomas et al., 2022)	1 Not found 2 Various empirical and theoretical backgrounds (Bangen et al., 2013), e.g., theoretical approaches involving review, synthesis, and/ or expansion of existing theories, rating methods of wisdom; interviews, Delphi method [NOTE Neuropsychological basis of wisdom described: '....appear to be localized primarily to the prefrontal cortex and limbic striatum'. (Lee & Jeste, 2019, p. 127)]

2 Grossmann et al., 2020; Brienza et al., 2018, Santos et al., 2017; McKee and Barber, 1999 *Common wisdom model*	'… the study of morally-grounded excellence in social-cognitive processing' (Grossmann et al., 2020, p. 103)	1 Deep insight and understanding, avoiding ego bias. 'PMCs allow one to see through illusions by avoiding self-deception and related egocentric biases' (Grossmann et al., 2020, p. 109) 2 Balance of viewpoints, epistemic humility, context adaptability, multiple perspectives (Grossmann et al., 2020, p. 110)	1 (Partly implicit) '... emotion regulation is not sufficient for wisdom, although in many cases good emotion regulation skills may be necessary to develop wisdom' (Grossmann et al., 2020, p. 124). 2. In moral grounding: e.g. sympathy; compassionate attitude. Prosocial attitudes in moral aspirations (Grossmann et al., 2020, p. 107)	1 Ethical life-philosophy. '... morally grounded excellence in social-cognitive processing'; (Grossmann et al., 2020, p. 103) 2 Implicit: Self-transcendence not included in CWM though mentioned by subjects in survey on which the model is based. Implicitly in the model: Prosocial attitudes in moral aspirations (Grossmann et al., 2020, p. 107)	1 See C, AS, EX 2 'PMC required for implementation of abstract, moral concepts' (Grossmann et al., 2020, p. 110)	Explicit formulation not found; wisdom is context-dependent. CWM is against personality-based wisdom definitions.	1. Partly based on McKee and Barber's (1999) philosophical analysis of wisdom: 'Seeing through illusions'. Also, discussion of meta-theoretical assumptions of wisdom. Constructivism as base philosophy. No explicit conception of human being. 2. Wisdom researchers met in Toronto in July 2019, resolving disputes through discussion. Guided by a survey of scientists who study wisdom-related constructs, participants international, N = 44. CWM is also partly based on former articles by Brienza et al. (2018) and Santos et al. (2017).

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3 Karami et al., 2020 *Polyhedron Model of Wisdom*	'...knowledge management, self-regulation, altruism and moral maturity, openness and tolerance, sound judgment and decision making, intelligence and creative thinking, and dynamic balance and synthesis translated into action'. (Karami et al., 2020, p. 241)	1 Self-regulatory processes: reflectivity, insight, life reflection. Knowledge management: experience-based knowledge; procedural knowledge; context knowledge; tacit knowledge; social knowledge. Sound judgment and decision-making ability regarding contexts. 2 Openness; tolerance for uncertainty. Consideration of multiple perspectives, creativity.	1 Emotional regulation 2 Prosocial cooperation, generativity, altruism, empathy, sympathy	1 'Moral maturity... wisdom guides knowledgeable actions on the basis of moral and ethical values' (Karami et al., 2020, p. 249) 2 (Contextual) relativism in values (as in openness) but: '...wise people are able to tolerate others' values as long as the balance between their own good and that of others is kept' (Karami et al., 2020, p. 249)	1 See C, AS, EX 2 Application of knowledge: the ability to effectively choose and apply the appropriate knowledge in varying situations. Sound judgment and decision making. Ability to give advice.	Subject/ person implied in self-regulation (e.g., reflection, choosing action, emotional regulation).	1 Not found. 2 Fifty articles systematically reviewed from the fields of psychology, management and leadership, and education. Most cited peer-reviewed articles published between 2006 and 2018 that include wisdom in the title and keywords. [NOTE only psychology articles (N=17) considered here in this article.]

4 Glück and Weststrate, 2022 *Integrative wisdom model*	'...noncognitive wisdom components (an exploratory orientation, concern for others, and emotion regulation) moderate the effect of cognitive components (knowledge, metacognitive capacities, and self-reflection)' (Glück & Weststrate, 2022, p. 342).	1 Life-knowledge; tacit knowledge, life pragmatics. Self-knowledge and -reflection. Metacognitive capacities. 2 Exploratory orientation/Desire for understanding '...to understand problems in depth, look at them from different perspectives, and consider contextual factors'. Consideration of uncertainty and uncontrollability, epistemic humility (Glück & Weststrate, 2022)	1 Emotion regulation. 'Wise individuals are experts in recognizing, understanding, and regulating emotions in themselves and others' (Glück & Weststrate, 2022, p. 360) 2 'Empathic concern ... identify the emotions of others and experience sympathy with them, is a core component of wisdom'. (Glück & Weststrate, 2022, p. 359). Exploratory Orientation, Concern for Others: 'Wise individuals are able to understand how others feel, and they care about the well-being of others' (Glück & Weststrate, 2022, p. 59).	1 (Committed life-philosophy implicit in 2) 2 Common-good orientation. Wisdom entails a concern for 'something larger' than one's own benefit.	1 Exploratory orientation/Desire for understanding/ Open-mindedness. 'In sum, wise individuals are curious about life and oriented toward learning and growth, and they are open to new ideas, perspectives, and inner and outer experiences'. (Glück & Weststrate, 2022, p. 359) 2 Wise behaviour. 'They aim to resolve difficult situations in ways that balance gains and losses for everyone involved, from the small scale of advice-giving to the large scale of social or political engagement'. (Glück & Weststrate, 2022, p. 359).	'Trait factors' indicates that some stable 'wisdom features' are assumed, but also intraindividual, contextual variability at the same time.	1 Not found 2 Tracing components from previous studies with the criteria: folk conceptions, expert conceptions, empirical evidence, and thought experiments. Integration of seven former models into a metamodel.

(*Continued*)

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5 Kallio and Tynjälä, 2025 *Holistic wisdom model*	Wisdom is a complex construct of ideal behaviour and action regarding practical, ill-defined, or existential life problems. It is a bidirectional phenomenon with subject-based and context-based polarities. It emerges with the subject's intentional decision to find ethical solutions to problems through deep integration of cognition, reflection on affective-social processes, and practical action, and self-transcendence for the common good.	1. Deep reflection and understanding of oneself; insight, tacit/expertise knowledge, intuition, experiential knowledge (horizontal/vertical) 2. Contextual integrative thinking, integration of factual and experiential knowledge, social perspective-taking, epistemic humility, creativity, critical thinking, systemic thinking temporal dimensions	1. Emotional richness and regulation. 2. Prosocial emotions (empathy, compassion).	1. Committed positive life philosophy. 2. Self-transcendence as an ethical goal for common good.	1. Self-cultivation orientation for intrapersonal growth. 2. Ethical action	Subject-based, meta conscious level decisions for balanced common good are necessary signs of wisdom. Decisions are contextually dependent and in interaction with environment.	1 Rauhala's holistic conception of human beings is the basis with which former wisdom models were compared and analysed. Humans are a tripartite totality of body, mind, and situation in constant interaction. Intentionality is a basic mode of consciousness/ meta consciousness. 2. Previous models and integrative metamodels of wisdom act as the basis for the HWM model. Former philosophical anthropology studies and commitment to Rauhala's conception of the human being.

[*] Refers to models that include non-Western conceptions of wisdom (i.e. Eastern).
[**] 'Implicit' means that the mentioned psychological phenomenon is in the marginal in the wisdom model.
[a] Intuition is included in C1 and has two meanings: A = intuition as part of psychological process, e.g., tacit, expertise knowledge; B = intuition as transconceptual phenomenon.
[b] Self-transcendence: A = in the sense of going beyond oneself for other people; B = self-transcendence as personal philosophy, as spiritual transcendence in various forms, as ego-lessness.
[c] Note: Subject/Person A = may be understood as *ontologically existent*, but in some cultures B = understood as *ontologically non-existent* although experientially existent (transient, e.g., in Buddhism).

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