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# What Is Wisdom? Can We Define or Measure It? What Is Its Significance in Our Lives?

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## Abstract

The paper reviews and discusses several definitions of wisdom. The aim is to stimulate and hopefully launch a debate regarding the challenges we face in our attempts to understand and harness it. The authors begin with reviewing the definitions of wisdom as kindness, well-being, and altruism, discuss practical wisdom in medicine and consulting, and introduce attempts to operationalise it as data compression. Further definitions consider the relation of wisdom to logic, intelligence, language, ageing, experience, insight, and faith. Following some theoretical considerations regarding uncertainty, heuristics, unconscious mind, and free will, the article concludes with an introduction to the concept of collective wisdom.

## Keywords

Wisdom, Intelligence, Artificial Intelligence, Artificial Wisdom, Collective Wisdom

## 1. Introduction

Wisdom is difficult to define. Moreover, we need more methods and tools to *measure* or *harness* wisdom. How can we tell if someone is "wise" or how wise s/he is? How many forms does wisdom have? Many questions arise when we confront the term, but most still need answers. Yet, understanding and utilising wisdom is vital for survival, not just for the human species but also for life on the planet. The future depends on our decisions today, but many of those we and our leaders make are not always "wise." Yet, only a handful of scientists and even fewer research centres worldwide conduct research directly on wisdom. A few universities, such as Wisdom University (2023) and Wisdom Graduate School of Ubiquity University (2023) in California, USA, offer graduate degrees in wisdom

focusing on its spiritual aspects. The Center for Practical Wisdom (2023) of the University of Chicago is the only one in the world that extensively studies aspects of practical wisdom. Wisdom is related but different from intelligence. Ackoff (1989), like many others, proposed a hierarchical structure relating data, information, knowledge, and wisdom (**Figure 1**).

Liew (2013) kept the hierarchical structure in his models but introduced feedback loops between each node and its predecessors (backward arrows in **Figure 1**). In Ashby's (1962) cybernetical terms, each descendant (i.e., successor) node can therefore be viewed as a "controller" striving to optimise itself by sending feedback to its antecedent(s) (i.e., predecessors) node(s) requesting corrections or additional input. The crucial point is that data, information, and, thanks to AI, knowledge do not require a brain to perform such a controller's function.

On the other hand, wisdom has yet to be conceived as a system's property that can exist outside of a human brain, a challenge for AI! Thus, wisdom is not simply at a higher level than intelligence; it is an *emerging property*[1]. That is why scientists are having so much difficulty trying to capture or define it based on its constituent parts.

While the evolution or emergence of information from data, knowledge from information, and intelligence from knowledge has been sufficiently well defined, operationalised, and simulated, the transition to wisdom remains challenging. Given the emergence of powerful AIs, this discussion is timely and essential.

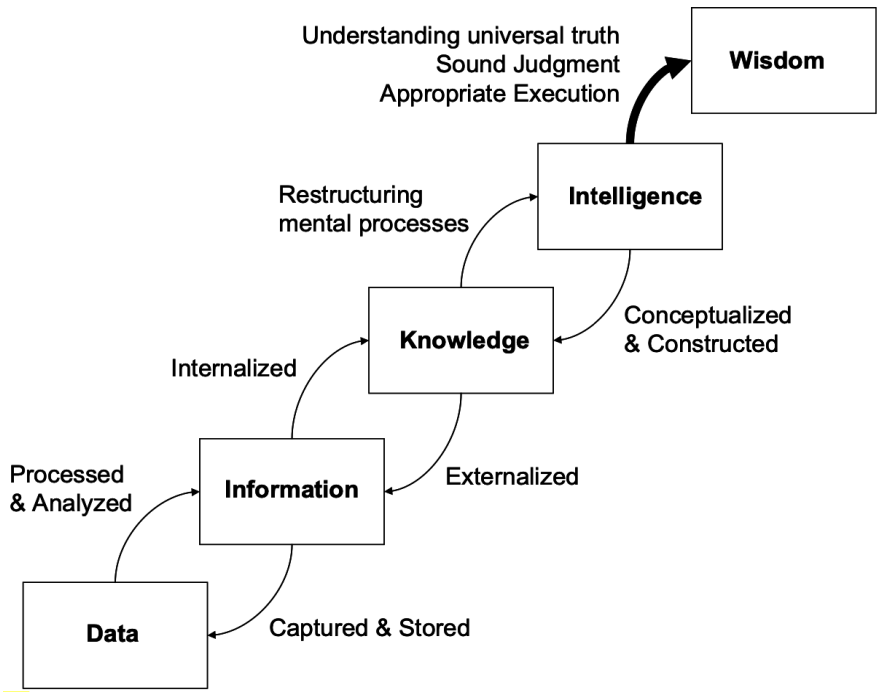


**Figure 1.** Ackoff's hierarchy from data to wisdom, modified from Liew (2013).

[1]Aristotle, Metaphysics (Aristotle), Book VIII (Eta) 1045a 8-10: "… the totality is not, as it were, a mere heap, but the whole is something besides the parts …", i.e., the whole is other than the sum of the parts. Nicolai Hartmann (1882-1950) was one of the first modern philosophers to write on emergence (Poli, 2012).

Research on human and artificial intelligence is the subject of countless projects and publications. On the other hand, only a handful of centres study collective intelligence and collective wisdom. The MIT Center for Collective Intelligence (2023) has studied collective intelligence for over two decades. Their recent focus is on harnessing the power of people and computers working together (Malone, 2018). The Collective Intelligence Unit (Collective Intelligence: CBS Spearheading the Next "New Black"|CBS-Copenhagen Business School, 2021) at Copenhagen Business School, established in 2019, explores the benefits and limitations of using collective intelligence for policy-making. They also recently established Centre for Collective Intelligence Design (Centre for Collective Intelligence Design, n.d.) by nesta.org.uk designs tools and projects that allow communities to respond collectively to challenges. Their approach is not backed up by a particular methodology or software tool. They utilise available tools and methods to help diverse voices be heard and support people with different interests and preferences to find common goals.

Along with our cybernetical considerations above, collective intelligence might be strongly related to collective wisdom, but little is known about this relation; many confuse collective intelligence with collective wisdom. Also, most collective wisdom publications are not experimental. Future Worlds Center (2023) in Cyprus is one of the very few centres that develop theories, methods, systems, and tools to support groups to manage and structure the plurality and complexity of opinions, perspectives, or options proposed by diverse stakeholders. Their Dialogic Design Science approach (Flanagan, 2020) claims to harness a group's collective intelligence and collective wisdom (Laouris & Michaelides, 2018; Laouris & Romm, 2022a, 2022b; Michaelides & Laouris, 2023; for applications utilising lay peoples' wisdom, see also Laouris et al., 2009a, 2009b; Laouris et al., 2015). They use the emerging consensus to design more effective plans to reform the socio-technical systems the group wishes to improve. More recently, they attempted to scale up the process using hybrid face-to-face and virtual or asynchronous processes (Laouris, 2022a, 2022b; Laouris & Christakis, 2007; Laouris & Dye, 2023; Laouris & Metcalf, 2023). The Institute for 21st Century Agoras (2022) operates as a global coordinating body for systems scientists involved in the theory and practice of Dialogic Design Science, a branch of operations research and complex systems science.

## 2. In Search of Definitions

In the following paragraphs, we briefly review fifteen different facets of wisdom and utilise them to grasp and define it. Part of our paper is grounded on publications of scientists who collaborated with the Center for Practical Wisdom (2023) at the University of Chicago because they represent the most notable attempt to define wisdom.

### 2.1. Wisdom Is Kindness, Well-Being, Altruism

An excellent point to begin our journey is with a view that wisdom cannot exist

if it does not aim at the common good, justice, morality, and survival, as well as at the connection of the individual result with the common destiny (Moran, 2010). Kindness is its fundamental principle! Another view is that wisdom concerns the love for our fellow human beings and the limitation of self-love (Hanley, 2019). According to the ancient Greeks and Romans, altruism wisdom arises when one successfully combines personal impulses and desires with society's expectations, needs, and demands. In other words, it takes wisdom to interact successfully with society.

### 2.2. Wisdom Is Our Ability to Realise What Is Valuable in Life

Maxwell (2007) declares wisdom as our ability to realise what is valuable in life. He, therefore, strongly criticises universities and educational systems for failing to prepare citizens for sustainable, thriving futures because they focus on scientific knowledge and technological know-how. Maxwell argues that education should re-focus on solving real-world problems: problems imperative for our living, happiness, and liberating ourselves from misery, poverty, or injustice. He argues that our focus on science and technology not only does not help us solve today's complex problems but makes them worse.

### 2.3. Practical Wisdom in Medicine

Practical wisdom in medicine is related to goals that guide medicine and human prosperity (Kaldjian, 2010). Medical professionals who operate under "wisdom" contribute to training medical ethics and professionalism. Even the practical conscience of the practitioner must prevail over the competing claims of patients or society. Joint decision-making between patients and physicians is influenced by a complex interplay of regulatory values arising from the ethical commitments and interests of patients, physicians, institutions and society. This is why clinicians need practical wisdom that can distinguish, integrate and decide between competing ethical claims that arise in the clinical decision-making process.

### 2.4. Practical Wisdom in Consulting

Relevant are two professions that we encounter in modern times: those of the psychotherapist and the Judge-Judge (Levitt & Piazza-Bonin, 2017: pp. 127-129). With their contributions, people can tackle their problems, either through the other's value system (psychotherapists) or through a social value system (Judges-Judges), but not alone. This mutual assistance and cooperation between humanity can be considered "wise" and bringing justice in a world that lacks the latter! Mutual assistance and order, in short.

Scholars, Business Leaders, Wealth Owners, Philanthropists, Consultants, and others have shown keen interest in "What is wise advice", how it can be found, and how much more likely to be given (McCullough & Whitaker, 2018: pp: XX-XXII). If the consultation is made under *wise claims*, it will be more

like the kind known in previous traditions as "practical wisdom", which includes a good and correct discussion of the human good. Known as "wealth counselling," it can be an essential form of practical wisdom. The latter involves consulting individuals and their families about using wealth materials in their lives. The meaning of wisdom in the modern world could be understood through practical use in consultation, while it also respects and reflects practical wisdom itself.

### 2.5. Wisdom Is Data Compression

Vandamme (2023) emphasizes the urgency for operationalizing wisdom: "Intelligence as well as AI is ethical, social, economic, politic …neutral. They need to be taken good care of and directed by Wisdom made operational, inclusive by Artificial Wisdom." Today, we are drowning in vast amounts of data, and a wave of "hyper-information" pervades us. Our ability to analyse and process information with critical thinking is reduced. It is essential to recognise the most important and keep the essence. We thus face two challenges: understanding it quickly and understanding it well. The idea of good understanding varies depending on the data we have, but the universal goal is to distil the enormous amount of information into its most basic elements (Gupta, 2010). This filtering process can be considered an operational definition of wisdom. The system that produces maximum compression is the most "wise." Computers can store and process vast amounts of information. However, timely access to wise information is also vital since we live in a rapidly evolving world. Therefore, a new term, *in-time wisdom*, has been coined to describe that query access speed is also crucial.

### 2.6. Wisdom and Logic

Another way to define wisdom seems to be its ability to implement the application of explicit logic. For example, while exploring the consistency, or lack thereof, between people's stated principles and the reasons that actually shape their moral judgments using the trolley problem[2], Sargent (2008) finds a mismatch: people may offer a justification, but they are not in a position to identify the actual operative principles that underlie their judgements.

### 2.7. Wisdom and Intelligence

All studies agree that there is no relation between intelligence and wisdom. A modest relationship has been shown to crystallised intelligence (e.g., Grossmann et al., 2013). In a classic study (Staudinger et al., 1998), only 14% of the variance in wise thinking was accounted for by measures of intelligence and personality. Sternberg (2001) explains that wise individuals are sought after in positions of leadership, not because they are more intelligent but because they manage to balance the requirement for continuous change (i.e., shaping of the environ-

[2]https://en.wikipedia.org/wiki/Trolley_problem.

ment) with the need for stability and continuity (intelligence).

### 2.8. Wisdom, Language and Aging

"Wisdom" is a word so familiar but so unknown at the same time. Linguistic variables also influence our perceptions of wisdom (Gordon & Jordan, 2017). While the definition of wisdom might remain a puzzle, the means by which we convey knowledge and experience are *words*. Research reveals a positive correlation between wisdom and age and a negative between language and age. Therefore, one could argue that the ability to express or articulate wisdom might decrease with age. On the other hand, language is not the only channel through which "accumulated" wisdom can be "transmitted" from one person to another. In Eastern cultures, one way in which a sage conveys his message is in minimal words or by demonstrating an act, leaving it to the receiver to make her sense-making.

### 2.9. Wisdom and Experience

Scientists and laypeople agree that life experiences, particularly negative events, contribute towards the development of wisdom even though it has not been possible to identify determining characteristics or explain intra-personal variability (e.g., Glück & Bluck, 2013; Grossmann, 2017). Through careful observation of an ant's life, one can realise that these little creatures accumulate knowledge through their personal experience during their lifetime and use this body of wisdom to guide future decisions. A form of wisdom, then, is the accumulation of knowledge through personal experience during our lifetime or the lives of our immediate ancestors. In addition, the events and challenges that each of us faces during life help to develop wisdom, as experience is considered a part of it (Glück & Bluck, 2013: p. 77). More specifically, the experiences of everyday life help us to learn, from the mistakes or the right ones, and to act accordingly afterwards!

### 2.10. Wisdom vs. Insight

Some confuse the concepts of "wisdom" and "insight" (Molden, 2014: 2 discussing; Higgins & Eitam, 2014). Undoubtedly, these two concepts have similarities. For example, both depend on intuition and are concerned with problem-solving guided by intuition. Insight, just like wisdom, seems to have many benefits as a means towards solving problems.

### 2.11. Wisdom and Faith

Faith and godly wisdom are foundational elements of virtually every religion. An example is, "our Heavenly Father desires for us to walk in the way of wisdom" (Prov. 4: 11-13). This script should not be interpreted as faith expects us to leave all decisions to the divine. The ancient Greek maxim "God helps those who help themselves" offers a compass. Legaspi (2018), among others, uses the interpreta-

tion of the Bible as a wisdom-seeking activity. Legaspi defines wisdom as "a program for life"; the ability to live well. Leaders have often used biblical texts to help them respond wisely to historical pressures and achieve goals vital to their communities.

### 2.12. Wisdom Cannot Be Defined without Theory

Tiberius & Swartwood (2011) insist that it would be wrong to embark on an effort to define wisdom without developing an underlying theoretical ground. They propose using the Wide Reflective Equilibrium normative theory because it seeks to achieve equilibrium among considered moral judgments (or intuitions) about cases, options, ethical principles, and background theories. Moreover, they argue that a theory of wisdom ought to present an ideal that people would, after appropriate reflection, have reason to aspire to. In effect, these authors separate the task of developing a theory of wisdom from developing a definition. Applying folk theory, they identified four essential components of wisdom: 1) Deep understanding, i.e., understanding practical challenges and choices people face, personal and moral values people, ways in which values affect choices, and difficulties (emotional or intellectual) involved in making choices or solving problems. 2) Problem-solving abilities, i.e., ability to apply their deep understanding to their own lives and to the lives of others to solve problems. 3) Motivation to live well and help others. (The motivation to help others choose well is implied by the fact that a wise person provides guidance to others and has concern for others.) 4) Reflexive abilities, i.e., they are also "able to put old information, theories, and so forth, together in a new way" (Sternberg 1985). In her book, Tiberius (2010) concludes that "we need to think and reflect better… to develop the habits of thought that constitute wisdom… to care about things that will sustain us and give us good experiences… to have perspective on our successes and failures… to be moderately self-aware and cautiously optimistic about human nature", but also to "to know when to think seriously about our values, character, choices, and so on, and when not to."

### 2.13. Wisdom, Uncertainty and Heuristics

Many authors relate the ability to make decisions under uncertainty with aspects of wisdom (e.g., Mackenzie, 2006; Servan-Schreiber, 2012; Grossmann, 2017). Wisdom research can probably benefit from studies of game theory, uncertainty and risk, which also use terms like "intuition", "feeling", "hunch", "heuristics", and "experience". Heuristics are mental shortcuts that can help humans to make decisions under uncertain circumstances. The ability of an individual to face the unknown or the uncontrollable requires and implies "wise ability" (Hertwig & Herzog, 2009).

### 2.14. Wisdom and Unconscious Mind

We have argued above that wisdom could be viewed as an emerging property of

data, information, and knowledge. Bennet & Bennet (2008) claim that wisdom relies on tacit knowledge that is not easily accessible. They introduced the concept of extraordinary consciousness to explain our ability to acquire greater sensitivity to the information stored in the unconscious to facilitate its application. They define extraordinary consciousness as heightened sensitivity to and awareness of our unconscious mind. According to these authors, an individual needs to move beyond ordinary to extraordinary consciousness to access tacit knowledge.

### 2.15. Wisdom Cannot Exist without Free Will

One could argue that it is meaningless to talk about wisdom if the world is deterministic. However, the Nahmias (Nahmias et al., 2007) study has provided strong evidence that most people judge determinism as not threatening free will and moral responsibility when determinism is described in non-mechanistic, i.e., *psychological terms*. However, significantly more people consider determinism to threaten free will and moral responsibility when determinism is described in mechanistic terms, i.e., *neuroscientific terms*. When they combined responses across all the scenarios studied describing determinism in psychological terms, 66% of the participants responded that agents make their own free will decisions. Almost 80% judge that they are morally responsible for their decisions. Even though the Nahmias study did not mention "wisdom," we interpret the combination of free will and moral responsibility as a strong correlate to wisdom. Thus, we could conclude that as long as people are not primed to think that determinism entails "mechanism," most do not perceive determinism as a threat.

## 3. From Individual to Collective Wisdom

All of the above scholars approach the concept of wisdom as an individual's ability. However, some scientists try to invent methodologies and tools to define and understand wisdom as an emerging property of a system of actors, referred to as collective wisdom. They aim to capture wisdom scattered within a group of actors comprising humans and virtual agents.

Mulgan (2018) emphasises that many of the biggest gains will come from better approaches to combining human and machine intelligence, in particular harnessing the intelligence of groups. Harnessing collective wisdom presents an even greater challenge, especially when group members have opposing views and conflicting interests on an issue. It has been shown through crowdsourcing experiments that an averaged model from a larger sample of individuals performs worse than one constructed from a smaller sample Aminpour et al. (2020).

Several scientists and, in particular, the teams of John Warfield (1976, 1994, 1995; Warfield & Cardenas, 1994), Aleco Christakis (Christakis & Bausch, 2006; Flanagan & Christakis, 2010) and Yiannis Laouris (Laouris, 2012, 2015; Laouris & Christakis, 2007; Laouris et al., 2008a; Laouris & Romm, 2022a, 2022b; Laouris, 2022a, 2022b; Laouris & Dye, 2023; Laouris & Metcalf, 2023; Laouris & Romm,

2022a; Michaelides & Laouris, 2023) have developed and refined systemic methodologies towards this goal. The authors' extended network has demonstrated how harnessing collective wisdom can be instrumental in: rendering our world more accessible (Laouris et al., 2008b; Laouris et al., 2017; Roe et al., 2011); sustainable (Ferri et al., 2018; Laouris, 2015); reinventing education (Laouris et al., 2010) and democracy (Laouris & Romm, 2022a, 2022b; Laouris et al., 2022; Romm et al., 2022); resolvinginter-communal conflicts (Laouris et al., 2009a, 2009b; Laouris et al., 2015); or reforming local governance (Laouris & Michaelides, 2018; Michaelides & Laouris, 2023).

## 4. Concluding Remarks

Throughout all of human history, "*philo-sophy*" (i.e., love of wisdom) has sought in vain to discover how humanity might learn to be and act wiser. But wisdom might be a utopia. We still lack a widely accepted, operational, and solid definition of wisdom. Expressions of wisdom are found in various examples of people's daily lives. Wisdom is a concept that everyone seems to apprehend but becomes elusive when trying to "capture" its essence. Yet, among other things, wisdom could contribute enormously to prosperity by offering smart and effective solutions to many contemporary challenges. This short paper calls upon joining forces to conquer this frontier and operationalise and utilise wisdom.

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## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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