



Perspectives

The History of Mindset: A Critical Review

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Abstract: Mindset history is an area of study where little peer-reviewed research exists, and the small amount of research that is available is typically partial and incomplete, and sometimes contains inaccurate and unsubstantiated claims. This paper addresses this gap by being the first peer-reviewed study to inquire into the origins and history of mindset. This review found that mindset psychology has a diverse, century-long history of explicit research and practice, with its origin phase taking place between 1908 and 1939, early inquiries occurring between 1940 and 1987, and contemporary bodies of work emerging in, and beyond 1988. The paper concludes with an invitation to become part of the future of mindset psychology by deepening your understanding of its history, and by grounding your work in a comprehensive understanding of the entire field.

يقتصر تاريخ دراسة العقلية على عدد قليل من الأبحاث المنشورة في المجالات العلمية المُحكّمة، وهذه الأبحاث القليلة المتاحة عادة ما تكون جزئية وغير مكتملة، وأحياناً تحوي ادعاءات غير دقيقة تفقر للدليل. لذا تقدم هذه الورقة مراجعةً ناقدةً كدراسة مُحكّمة تُعد الأولى من نوعها تستقصي أصول العقلية وتاريخها لمعالجة هذه الفجوة البحثية. وقد وجدت هذه المراجعة أن علم نفس العقلية يمتد على طول تاريخ متنوع في القرن العشرين المعروف بقرن البحث والممارسة، فقد يعود أصل نشأة العقلية في طور تأسيسه بين الأعوام ١٩٠٨ و ١٩٣٩، واستمرت في طور الاستقصاءات المبكرة ما بين الأعوام ١٩٤٠ و ١٩٨٧، ثم أخذت شكل الأعمال المعاصرة في العام ١٩٨٨ لتستمر بعد ذلك على هذا النحو. وتدعو هذه الورقة القارئ في ختامها للمشاركة في مستقبل علم نفس العقلية من خلال تعميق فهمه لتاريخ العقلية، فبذل جهود بحثية، ثم ترسيخ أعماله لتشكيل فهم شمولي للمجال بأكمله.

Keywords: mindset history, mindset psychology, mindset theory

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Acknowledging the history of psychological ideas is crucial for providing context to current and emerging ideas, for promoting understanding and critical reflection, and for showing respect to the people that contributed to the evolution of those ideas. Without appropriate levels of historical acknowledgement, voices from the past become silenced and new ideas become decontextualized from the ideas that came before them. There is also a reduced capacity for understanding and critical examination.



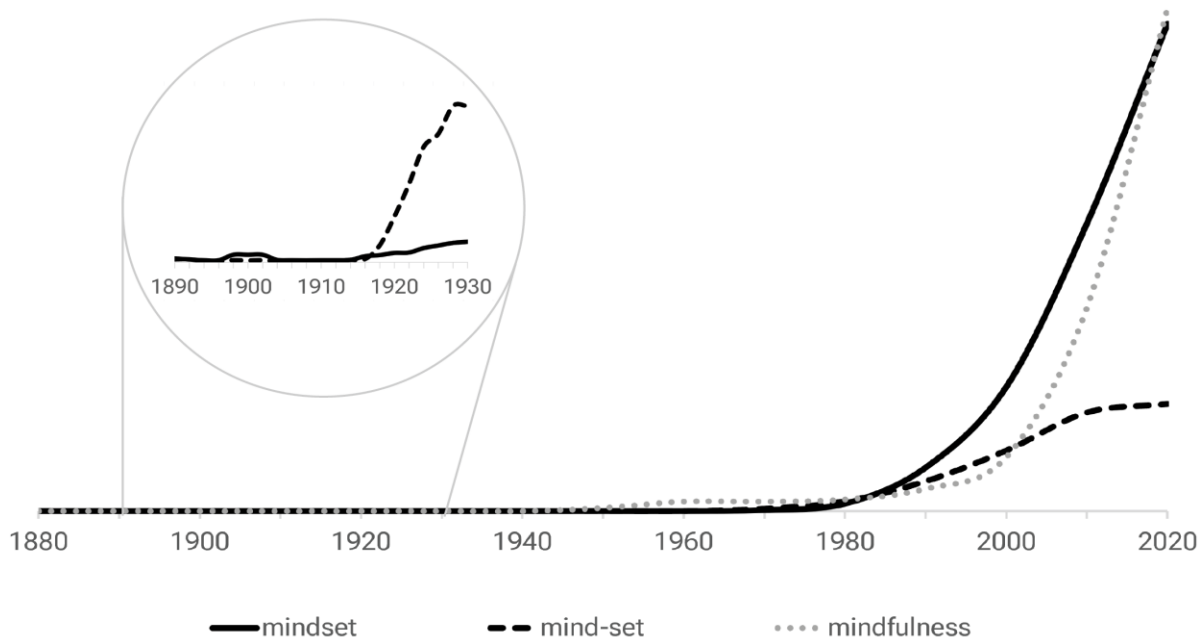
I am a mindset researcher and one day I realised I had not been appropriately acknowledging the history of mindset in my own work and research into a life practice called benefit mindset (Buchanan & Greig, 2021; Buchanan & Kern, 2017). Upon having this realisation, I began a process to study the origins and history of mindset psychology. I initially assumed that someone in the field of mindset had undertaken a detailed historical review and shared what they learned. To my surprise, there were no books, research papers, or major bodies of work available that explicitly investigated its history. Among the few disparate historical accounts I was able to uncover, there were several claims that mindset history was a critical gap in the literature (e.g., French, 2016). What I discovered was that a lack of historical acknowledgement was not just something that I had engaged in, it was a field-wide phenomenon. Thus, I decided to undertake this historical review and share my findings, to help the field build its awareness of mindset history.

Use of the term mindset

To frame this historical review, it is useful to see how frequently the term *mindset* has been used in the English language compared to other terms and how this use has changed over time. Google's Ngram viewer offers such a tool, showing the frequency with which a term has been used within digitised books and written records. The results for *mindset* and *mind-set* are shown in Figure 1. For comparison, the term *mindfulness* has been included to get a sense of scale and frequency.

Figure 1.

Frequency of use of the term's mindset, mind-set, and mindfulness.



There is some indication in this data that the terms *mindset* and *mind-set* were used around the 1900s. However, when I investigated this usage, these references were from documents that had either been incorrectly scanned or dated by Google, or were co-occurrences of the terms of *mind*



and *set*. The first instance of a correctly scanned and dated document using the terms appears in 1909. In the decades following, there is a small yet notable increase in the use of both terms, with *mind-set* being the preferred spelling. Thereafter, both terms ebb and flow until the 1980s when they experienced a significant rise in use, with *mindset* now becoming the preferred spelling.

Research method

I used Google Search and Google Scholar to find documents that used the terms *mindset* or *mind-set* between the years 1900 to 2010. This included books, peer-reviewed research papers, conference proceedings, magazine pieces, online articles, and lecture transcripts. Then, I reviewed the documents that were publicly available and feasible to read as a researcher who is attempting to be inclusive but not exhaustive in my review. If the document offered some indication of what was meant by the term *mindset* in a psychological sense, I included that reference. If the document did not offer much psychological insight, I did not include that reference. I ended the review in 2010 because beyond that, the number of documents became so great that it was impossible to review them adequately. Thus, I will focus this review on a curated collection of 32 historical perspectives which made a significant contribution to mindset history. As such, the history of mindset I present is not a complete and exhaustive review. Future studies could look at reviewing all the documents and bodies of work that refer to mindset for a more complete historical account.

Etymology and origins (1908-1939)

An etymological inquiry into the term *mindset* traces its origins and early use to the 1900s, when it was used as jargon in education and psychology texts to mean "habits of mind formed by previous experience". The term comprises the word *mind*, which can be traced to the Old English word *mynd*, meaning "that which feels, wills, and thinks," and the English word *set*, which comes from the Old English *settan*, meaning "cause to sit" and "put in some place" (Etymonline, n.d.).

In the first use literature, it appears several people were using the term's *mind* and *set* in close proximity to one another based on their literal dictionary meanings. An example comes from educator Ira Meyers, who in 1908 published an essay called *Field-work and nature-study: The pedagogical aspect*, writing:

"One result of broad-sense experience is to retain plasticity in mental attitude; if the mental attitude of the individual evolves out of his own experiences it will remain plastic and keep in adjustment and harmony with increase in experience; if however, it is the product of accepted dogma or statement, something based on a statement of authority, teacher, or text-book, the mind becomes set and excludes all possibility for growth in that direction." (Meyers, 1908, p. 317)

The first use of the hyphenated term *mind-set* comes from psychologist Thaddeus Lincoln Bolton, who in 1909, published *On the Efficacy of Consciousness*. In the article, Bolton describes that when a person is in the presence of an object, their presence gives rise to an image that is felt in consciousness and to a movement of meaning that is a function of their mental unity and mind-set.



In this way, Bolton suggests there is a connection between presence, perception, meaning, and mind-set; however, he doesn't explain what he means by the term *mind-set*. As Bolton writes:

"The object's presence ... is felt in consciousness as an image. ... The meaning of an object is given when the neuro-muscular process that has supported the image passes over into the processes which give the next image. ... The meaning is, then, that of mental unity and mind-set." (Bolton, 1909, p. 425)

Years later, several people started to combine the term *mind* with the relatively new psychological concept of "set", creating the resulting term *mind-set*. One example of this usage comes from Psychologist Edward Lee Thorndike, who in 1913, published *Educational Psychology*, where he writes about the role the mind's "set" or attitude plays in the learning process. Then, in 1916, he published *Education for Initiative and Originality*, where he used the hyphenated term *mind-set* as a synonym for the term *attitude*. Here are two examples of how he used the term:

"Any process of learning is conditioned by the mind's 'set' at the time." (Thorndike, 1913, p. 13)

"The response a pupil makes to any situation is caused in large measure by his attitude or mind-set." (Thorndike, 1916, p. 8)

Around the same time, psychologists Edward Kellogg Strong and Margaret Hart Strong published two different studies in recognition memory (Strong, 1913; Strong & Strong, 1916). As part of their method, they accounted for their subject's mind-set or attitude towards the task believing it influenced the way in which subjects participated in their studies. In both cases, the Strong's use the term *mind-set* as a synonym for *task attitude*, illustrated by the example below.

"It should be borne in mind that the subjects did not read the lists with the intention of remembering the words so as to be able to recall them later. Our "mind-set" or attitude toward the task before us has seemingly everything to do with the way in which we "take-in" stimuli." (Strong, 1913, p. 342)

The earliest unhyphenated use of the term *mindset* I was able to find comes from educator Alexander James Inglis, who published *Principles of Secondary Education* in 1918. In a section on education efficiency, he claimed that one's mental attitude or mindset played a critical role in the learning process, stating:

"Whether or not dissociation or generalization takes place [in learning] depends on two factors – the mental attitude or "mindset" which the individual brings to the situation, and the character of the situation experienced." (Inglis, 1918, p. 399)

In 1921, pedagogue William Heard Kilpatrick published *Mind-set and Learning*, which was later republished in 1925 in *Foundations of Method: Informal Talks on Teaching*. Kilpatrick used the term *mind-set* in a section on conditions for readiness or unreadiness for learning, where he



explains how he constructed the term by bringing together the word *mind* with the psychological concept of “set”.

“A most important source of readiness (in learning) is set, one's mental attitude at the time. ... [Readiness and set] are much alike and sometimes confused, but I believe we can make a clear distinction between the two. Set is broader than readiness. Readiness is best thought of as belonging to one response bond, while set refers to the mind acting more or less as a whole. The term ‘mind-set-to-an-end’ brings out perhaps more clearly what I mean. The emphasis here is on one controlling end which seems to possess the mind. The organism is bent or set upon attaining this end (typically an external end).” (Kilpatrick, 1925, p. 25)

In 1922, Principal John M. Shields published *Moral Education in Secondary Schools*, where he claimed there had never been a greater need to support young people with developing a good moral character. To facilitate this, he urged schools to work with psychologists and psychiatrists to help young people develop a positive moral attitude or mind-set, stating:

“The psychologist and psychiatrist must be called in, and individual differences and peculiarities must be dealt with scientifically, as well as pedagogically. If we can give the child positive interests and motives, and make him want to be good, a correct attitude, mind-set, or what-ever it may be called, will result.” (Shields, 1922, p. 224)

Later in 1924, George Albert Coe, founder of the Religious Education Association of America, published *Shifting the national mindset*, where he explores how war is a state of mind, and by working to establish a contrary mindset, war could be prevented. In Coe’s words:

“War is, of course, a state of mind. This means not merely the mental processes that accompany and immediately precede hostilities, but also the entire set of readinensses that determine, in advance of acute friction, how a nation shall conduct itself with relation to friction-producing causes. ... [By establishing] a contrary mindset, we could prevent war all together.” (Coe, 1924, p. 42)

In 1926, Marie Gugle, a maths researcher, wrote a journal article where she reviewed college entrance requirements for mathematics subjects. She examined why some pupils experience inner self-talk such as “I could never learn maths”. She went on to identify mind-set as a cause of such self-talk and suggested that cultivating the right mind-set was essential for learning. She describes:

“No pupil with a mind set against a subject will ever learn it. ... If a pupil is to learn anything quickly and well, he must have the right attitude or mind-set towards his teacher, his school, his subject, his fellows, and his own ability. College professors cannot afford to ignore these conditions for learning.” (Gugle, 1926, p. 324)

Joseph Jablonower, head of mathematics at the Ethical Culture School in New York, published an article in 1928 on his experience implementing William Heard Kilpatrick’s “Project Method”. He recommended the whole child must be enlisted in the learning process, so that a



mind-set and readiness for real and effective learning was brought forward within the child. In Jablonower's words:

“Real learning is achieved only when it is done with all one's heart and with all one's soul - also with all one's body. Learning is efficient only to the extent to which these conditions are met. The entire child, not just a part of him, must be enlisted. It is now generally known that merely imparting information is not teaching and that mere receiving of it is not learning. There must be favorable learning conditions which will bring about a mind-set in the pupil, an active attitude in which his whole being is enlisted.” (Jablonower, 1928, p. 433).

At the start of the 1930s, Associate Professor John M. Shales published the results of a study on the mind-set or attitude of rural and city children. Shales found that the mind-set or attitude children developed was influenced by the context in which they grew up. He wrote:

“[It is generally accepted] that the reaction of a human being to any particular situation is to a large extent determined by his mind-set or attitudes.” (Shales, 1930, p. 246)

“[The conclusions are] that rural children have a pronounced rural set of mind, and that city children have a decided, characteristic urban type of mind-set.” (Shales, 1930, p. 246)

William O. Brown, founder of the African Studies centre at Boston University, examined the impact of culture on mind-set in 1931. Specifically, he found that as individuals assimilate into the culture in which they live, that culture shapes their mind-set, attitudes, beliefs, and values. He stated:

“[T]he normal individual in any race seems to be able to assimilate to any type of culture. A Kru may become an American in mind-set, attitudes, beliefs and values. Chinese, Japanese and Oriental immigrants after a generation or so become American in culture.” (Brown, 1931, p. 51)

In 1939, Professor Stuart Appleton Courtis published *Philosophy of Education* and included mindset as a central idea in his theory of natural learning. In it, he posited that natural learning occurred when individuals consciously followed their inherent desire to explore and comprehend environmental stimuli. Whenever they consciously interacted with a stimulus, that individual's neurons automatically organised themselves, giving rise to a mindset that reflects the experience. Courtis summarised this process accordingly:

“A mind in the presence of a stimulus, automatically organizes in terms of past experience. The organization is termed a “set”, and greatly influences subsequent behavior. Out of mindset arises desire, and from desires are born purposes.” (Courtis, 1939, p. 113)

During this origin phase, the terms *mindset* and *mind-set* were not formally recognised as psychological terms, with neither appearing in the 1934 Dictionary of Psychology (Warren, 1934). Several people also identified mind-set definitions as being jargony or too vague to be useful in an educational and psychological sense (e.g., Pound, 1926; Sherman, 1932).



Early use in multiple contexts (1940-1987)

A second phase began in the 1940s, with the terms *mindset* and *mind-set* being used more often in contexts that went beyond education and psychology. For instance, in 1947, writer and business theorist Thomas Dreier published *The Religion of a Vagabond*, where he describes his understanding of how a mindset comes into being, and he also offers a powerful metaphor that illustrates his interpretation of its nature:

“Your nervous system automatically organises into what psychologists call a “mindset” which is determined by your nature and your past experience.” (Dreier, 1947, p. 5)

“What we call a mindset is like a music roll used on a piano player. The notes cut into the paper are the only notes that will be played. To change the melody changes must be made to the music roll itself.” (Dreier, 1947, p. 6)

In 1963, clinical psychologist Thomas Staton published several legal articles, including: *What people see and why*, *How to get people to see things your way*, and *Psychological factors influential in jury trials*. In his articles, he discussed the role mindset plays in a legal context.

“First, there is MINDSET, how our mind is operating. This involves, among other things, the emotional acceptability of what is seen. People tend to see what they want to see, to translate the sensations fed to them by their eyes into the mental picture they want to see, to what they want to hear.” (Staton, 1963, p. 71)

Educator Roald Fay Campbell wrote about the relationship between American federal and state governments and the education systems in 1967. Campbell found governments sometimes became locked into a mind-set of “power-play for the control of education”. As Campbell writes:

“A mind-set or way of looking at the world is a powerful force. If we view federal state relations within the mind-set of “power-play for the control of education,” we shall find some evidence for our position. ... Mind-sets can be useful or harmful. They are useful if they suggest useful insights regarding the real world, harmful if they limit or thwart our understanding of the real world.” (Campbell, 1967, p. 20)

Moving onto the 1970s, an editorial in the *Negro History Bulletin* critically examined what they called the brainwashing of American people via their exposure to all-White textbook images. They suggested these images be replaced with new ones that include people of colour. As *Negro History Bulletin* write:

“Civil rights acts have been adopted by Congress and are supposed to be now in operation, but we wonder about their successful application in view of the mind-set of collegiate Americans who have been brain-washed by the omission of colored persons from textbooks with also an all-white image.” (Negro History Bulletin, 1970, p. 4)



In 1971, architect and urban planner Arthur Erickson gave a presentation on the design of cities and the role mindset played in the design process. He was critical of the “North American mindset” that he believed was responsible for the fragmentation of cities and modern life. He stated,

“The city is a state of the cumulated mind, a mindset to use a more descriptive expression. We are conditioned by our mindsets. It is the filter through which we perceive reality. Each culture is distinguished by its mindset and it is the mindset that gives consistency to everything we do and make. The city is a direct result of this mindset and we cannot change the city until we question our realities, change our view and shift our priorities. The mindset is our prison until we become aware of its peculiarities and begin to move into another pattern of perception.” (Erickson, 1971, p. B-10)

In the mid-1970s, Professor Richard E. Palmer published *Toward a Postmodern Interpretive Self-Awareness*, where he examined what it means to take the postmodern turn in one's thinking, suggesting it required us to question all that is modern. In his examination, he used the term *mindset*, explaining:

“To take the postmodern turn in ones thinking, one must be willing to call the whole development of modern culture during the last three centuries into question. ... It is postmodern to call into question the whole scarcity- oriented, manipulative, exploitive, individualistic mindset that dominates modern existence.” (Palmer, 1975, p.319)

The majority of individuals cited so far are men, and mostly white men at that, except for a few exceptions. This was the case until the 1980s, when more women started using the term. For instance, in 1980, Sue Williams, a First Nations woman of the Dakota Sioux people, published *Nature speaks*, where she reflected on her upbringing on the Navajo reservation in Northern Arizona. She shared her learnings around how all life in the universe evolved in an interrelated and interdependent way and suggested that humanity's current mindset, associated with sexism, racism, and anthropocentrism, is threatening our planetary existence.

“Assuming that our goal is to sustain life on this planet in a healthy way, we need to identify those events and in situations which pose the greatest threats to our lives. There are, obviously, many aspects of a mindset and worldview which has led to our civilization to such a tenuous existence: sexism, racism, homophobia, disregard for the limits of the earth. (Williams, 1980, p 25.)

In 1987, Lee Bell, Assistant Professor of Education at the time, published *Hearing All Our Voices: Applications of Feminist Pedagogy to Conferences, Speeches, and Panel Presentations*. Bell described the importance of breaking the mindset of passivity for greater information sharing at gatherings.



“It is critical to break the mindset of passivity and the unreflective taking in of information. The best speeches are those that demand that the listener think about and challenge the information: they assume an engaged and reflective subject.” (Bell, 1987, p. 78)

Contemporary bodies of work (1988-2010)

The year 1988 appears to be a special year in mindset history, as several bodies of work emerged that included definitions and in-depth psychological theories. There was also an exponential increase in the number of references available from this time period compared to previous periods. For ease of reviewing these references, they have been grouped based on the bodies of work with which they were associated and ordered based on the year they first meaningfully used the term *mindset*.

International relations. In 1988, sociologist and anthropologist Glen Fisher published *Mindsets: The Role of Culture and Perception in International Relations*, which is based on 22 years of intercultural research in the Middle East, Europe, Africa, Latin America, and Asian Pacific regions. Fisher noted that the term *mindset* was more of a popular word rather than a technical term with a grounding in psychology or sociology. Accordingly, he offered a detailed description, including how he came to understand its psychology and how it influenced perception and reasoning. He compared mindset to other terms in psychology, including attitudes, worldviews, thought patterns, images, cognitive set, habits of perception, mental constructs, and offered the following descriptions:

“[Mindset is] a predisposition to perceive and reason in certain ways.” (Fisher, 1988, p. 22)

“[Mindset is] a means of simplifying the environment and bringing to each new experience or event a preestablished frame of reference for understanding it.” (Fisher, 1988, p. 23)

Fisher went on to publish *The Mindsets Factor in Ethnic Conflict* (1998) where he explored the role mindsets played in cross-cultural conflict and conflict resolution.

Mindfulness and mindlessness. In 1989, Professor Ellen Langer was studying mindfulness when she started using the term *mindset*. She had two ways of referring to it. The first was in relation to mindlessness, where she referred to mindset as a “premature cognitive commitment”, saying:

“[A] way that we become mindless is by forming a mindset when we first encounter something and then clinging to it when we reencounter that same thing. Because such mindsets form before we do much reflection, we call them premature cognitive commitments.” (Langer, 1989, p. 22)

Langer called them “premature cognitive commitments” because they are mindsets made in the past which are being mindlessly brought into the present. When individuals are mindless, they are not there to know they are not there, meaning, they have no idea that much of what they are seeing is pre-determined by old mindsets. The second way she refers to mindset is in relation to mindfulness. Here, mindset is loosely associated with “categories”.



“Just as mindlessness is the rigid reliance on old categories, mindfulness means the continual creation of new ones.” (Langer, 1989, p. 117)

Langer described the practice of mindfulness as 1) the continual creation of new categories; 2) an openness to new information; and 3) the trying out of different perspectives (Langer, 1989). Langer went on to publish several papers by herself and with colleagues, including *Mindful learning* (Langer, 2000), *Mindfulness and self-acceptance* (Carson & Langer, 2006), and *Mindset matters* (Crum & Langer 2007).

Action phases. Professor Peter Gollwitzer started using the term *mind-set* in 1989 describing it thus:

“Einstellung” (a German word meaning attitude) (Gollwitzer & Heckhausen, 1990, p. 1119)

“the sum total of the activated cognitive procedures” (Gollwitzer & Bayer, 1999, p. 405)

A focus of Gollwitzer’s research included what he referred to as “action phases” and the mindsets that corresponded to those phases. He found that there are two basic mindsets individuals use when completing an action. The first was a “deliberative mind-set” which focuses on goal deliberation and goal setting, while the second was an “implemental mind-set”, which focuses on planning the when, where, and how to act and follow through with action.

Gollwitzer also shares a story about the origins and history of mindset. In it, he claims that the concept of mindset originated at the Würzburg School in Germany at the turn of the 20th century and that he began using it in 1987 (Gollwitzer & Bayer, 1999). However, in reviewing that paper (Heckhausen & Gollwitzer, 1987), the word *mindset* is not mentioned. Instead, he used the term *states of mind* to describe the concept advanced by Würzburg school psychologists. Then, in 1989, he changed his terminology and claimed that “mind-set” was the concept advanced by the Würzburg school (Gollwitzer & Kinney, 1989). What’s more, upon reviewing the material from the Würzburg School, the term *mindset* is not mentioned. In my understanding, a more accurate story is that the Würzburg School played a central role in the formation of the *Einstellung* and set traditions (e.g., Gibson, 1941), which in turn contributed to the emergence of the mindset tradition.

Systems change. One of the first people to use the term *mindset* in a systems change context is environmental scientist Donella Meadows. In 1991, Meadows published an article in a column called *The Global Citizen* where she began to examine the role mindset plays in systems change (Meadows, 1991). A few years later, in *Places to Intervene in a System*, she named mindset or paradigm as the second most powerful leverage point for intervening in systems, stating “People who manage to intervene in systems at the level of [mindset or] paradigm hit a leverage point that totally transform systems” (Meadows, 1999a). Meadows describes a mindset or paradigm as:

“the shared idea in the minds of society.”

“the great big unstated assumptions”

“[the] deepest set of beliefs about how the world works”

“[the] shared social agreements about the nature of reality.” (Meadows, 1999a)



Meadows offers some examples of these shared ideas and big unstated assumptions, such as things like "growth is good", "one can own land", and "nature is a stock of resources to be converted to human purposes". Meadows further describes the ability to transcend mindsets and paradigms as the number one leverage point for intervening in systems. In Meadows' words:

"The highest leverage of all is to keep oneself unattached in the arena of [mindsets and] paradigms, to stay flexible, to realize that NO [mindset or] paradigm is "true," that everyone, including the one that sweetly shapes your own worldview, is a tremendously limited understanding of an immense and amazing universe. ... Everyone who has managed to entertain that idea, for a moment or for a lifetime, has found it to be the basis for radical empowerment." (Meadows, 1999a)

Another reference includes Meadows' *Sustainable Systems* (1999) lecture at the University of Michigan, where she encourages her students to ask mindset upsetting questions and paradigm upsetting questions, particularly in relation to societies taken-for-granted assumptions about growth. In her words:

"If you just listen around you to the mindset, the current culture, telling you how growth is going to solve a problem. If you just every time you hear that start asking, growth of what, and why, and for whom, and who pays the cost, and how long can it last, and what's the cost to the planet, and how much is enough? Just do that, you're gonna screw up mindsets, people are going to hate it. But that's what's needed is to start rethinking at this level. Even if you don't know the answers to those questions and hardly anybody does because we don't ask them, but you've got to admit those are good questions... those are mindset upsetting questions, paradigm upsetting questions." (Meadows, 1999b, 1:01:47)

Global mindset. In 1992, Stephen Rhinesmith, a leadership expert, published *Global Mindsets for Global Managers*, where he outlined the characteristics, competencies, and practices for leadership development in global companies. He cited Glen Fisher's 1988 book on mindset as inspiration for his use of the term, and describe mindset as:

"a predisposition to see the world in a particular way that sets boundaries and provides explanations for why things are the way they are, while at the same time establishing guidance for ways in which we should behave."

"a filter through which we look at the world"

"similar to a paradigm" (Rhinesmith, 1992, p. 63)

Rhinesmith went on to publish several articles and a book where he developed his ideas around a global mindset (e.g., see Rhinesmith, 1995; 1996). Others have subsequently published their views on a global mindset (e.g., Boisot & MacMillan, 2004; Ertenu Saracer et al., 2012; Gupta & Govindarajan, 2002; Jeannet, 2000; Levy et al., 2007).

Adaptive leadership. In the mid-90s, practitioners in the field of adaptive leadership began using the term. The practice of adaptive leadership distinguishes between approaching challenges in



a technical or adaptive manner. A technical approach involves a leader's attempts to address a challenge using existing know-how and by using existing problem-solving processes. An adaptive approach involves leaders opening themselves up to a mindset shift to see the challenges they face in a new way and to develop new know-how and new processes that are appropriate to that challenge. The approach emerged from research at Harvard University by senior lecturer Ronald Heifetz, who referred to Thomas Kuhn's definition of a paradigm to describe what he meant by mindset (Heifetz, 1994, p. 292). Here is an example of how Heifetz uses mindset in the context of adaptive challenge:

“When Parsons discovered that she probably could not solve the problem, she changed her mindset from exercising technical expertise to exercising leadership. ... Otherwise, she would be constrained to operate in the technical mode, since that is what they initially had expected to remove the kidney stone.” (Heifetz, 1994, p. 86)

Heifetz co-authored *Leadership on the Line* (Heifetz & Linsky, 2002), where he explores the role mindset plays in addressing adaptive challenges.

Transformative learning. At the turn of the century, Professor Jack Mezirow began using the term *mindset* in relation to our capacity for transformative learning. In his chapter, *Learning to think like an adult*, Mezirow wrote:

“Transformative learning refers to the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action. ... (Its) focus is on how we learn to negotiate and act on our own purposes, values, feelings, and meanings rather than those we have uncritically assimilated from others—to gain greater control over our lives as socially responsible, clear-thinking decision makers.” (Mezirow, 2000, pp. 7-8)

Fixed and growth mindset. A highly cited body of work that exists in the field comes from Professor Carol Dweck. Between the years 1985 and 2005, much of Dweck's research focused on what she called “implicit theories of intelligence”, where she identified two implicit theories, an “entity theory” and an “incremental theory”. Then, in or around 2006, Dweck renamed her two implicit theories to the more user-friendly terms of “fixed and growth mindset” (Dweck & Yeager, 2019, p. 483). Dweck defined mindset as:

“just beliefs” (Dweck, 2006, p. 16).

“the running account that's taking place in people's heads.” (Dweck, 2006, p. 215)

Dweck is another scholar that offers a story of mindset history. In this story, Dweck claims that “the first era of mindset research” began in 1983 through her efforts and that she published her first paper on “mindset theory” in 1988 (Dweck & Yeager, 2019, p. 483). Yet, in reviewing the publicly available papers from the 1980s to which Dweck refers and fact check these claims, the word *mindset* is not mentioned. Instead, the papers focus on what Bandura (1983) calls “conceptions of intelligence” and what Dweck and Leggett (1988) refer to as “implicit theories of



intelligence”. In my review of Dweck’s publications, I have been unable to find any meaningful reference to the word mindset until 2006. This suggests that a more accurate historical account here is that Dweck is a relative latecomer to the field of mindset, who in or around 2006, began using the term to make her research more “user-friendly” (Dweck & Yeager, 2019, p. 483). What’s more, when I searched the Internet for information regarding the first person to use the term *mindset*, there were many results claiming it was Carol Dweck in the 1980s. However, Dweck was not the first person to use the term mindset and I find no evidence to suggest she used it in the 1980s.

Dweck has published numerous academic papers on the potential applications she sees for fixed and growth mindset theory around the world. For instance, Dweck claimed growth mindsets could be used to advance conflict resolution in the Middle East (Dweck, 2012). Scholars in the Middle East have also studied how growth mindsets could be used to build cultural intelligence in diverse populations (e.g., see Mosanya, 2019).

Sustainability. In 2007, developmental consultants Cynthia McEwen and John Schmidt published *Mindsets in Action: Leadership and the Corporate Sustainability Challenge*, where they link the term *mindset* with our capacity for horizontal and vertical development. Here is how they describe mindset:

“The term mindsets refers to interior patterns of mind, or frames of reference, from which individuals see sustainability and its importance. Two aspects driving mindset growth and expansion are “horizontal development” and “vertical development.” While horizontal development refers to expansion in capacities through increases in knowledge, skills, and behaviours associated with a current mindset, vertical development is associated with capacity shifts from an individual’s current way of meaning-making to a broader, more complex mindset.” (McEwen & Schmid, 2007, p. 6)

Immunity to change. Another major body of work comes from Professor Robert Kegan and associate director Lisa Lahey, who in 2009, co-authored *Immunity to Change*. They refer to this work as being a psychology that helps people better understand individual “mindsets” or “meaning systems” and offers principles for how mindsets or meaning systems develop so that individuals can see more deeply into themselves and the world. They define a mindset as:

“the meaning-making system that shapes thoughts and feelings” (Kegan & Lahey, 2009, p. 224)

Kegan and Lahey describe their Immunity to Change process as a way to support mindset development and adaptive leadership:

“The Immunity to Change process, which is built on 30 years of adult developmental research, is a way of helping people come to take a kind of mental X-ray, ... and give you a picture of your own mindset.” ... “The Immunity to Change approach is unique in that it focuses exclusively on mindset transformation for enhanced professional practice, allowing it to help participants tackle adaptive challenges.” (Bauld, 2020)



Other types of mindsets. Numerous researchers have also shared their views on a specific type of mindset. Examples include an entrepreneurial mindset (e.g., Sharpe, 1994; El-Sayed, 2020), a centralized mindset (e.g., Resnick, 1996), an educator mindset (e.g., Brooks, 2001), a strategic mindset (e.g., Pisapia et al, 2005), an ethical mindset (e.g., Issa & Pick, 2010), etc. Details on these types of mindset were not included in this review because they tend to focus on the psychology of the word that comes before mindset (i.e., they focus on the psychology of being an entrepreneur or educator), rather than focusing on the psychology of mindset.

Related traditions. It is also important to acknowledge that the history of mindset presented here does not exist in a vacuum and that each person referenced is drawing on the wisdom of other traditions to support them in their mindset work. Some examples of these include beliefs, attitudes, assumptions, attributions, Einstellung, schemas, constructs, paradigms, worldviews, readiness, and of course the traditions of mind and set. I intend to publish a more comprehensive collection of field notes on the history of mindset and all of the related traditions in my upcoming dissertation (Buchanan, 2023).

Observations and critical examination of mindset history

1) **Mindset history.** This review found that mindset has a diverse, century-long history of explicit research and practice, with its origin phase emerging between 1908 and 1939, early inquiries occurring between 1940 and 1987, and contemporary bodies of work arising in and after 1988. This review also found a diverse group of traditions of research and practice that are closely related to the origins and history of mindset psychology, some of which span back hundreds and thousands of years. In terms of creating a visualisation of this history, it occurred to me that the history of mindset should not be conceived as a single linear sequence, with one person's contribution coming directly after another's in a timeline-like manner. It is perhaps more appropriately visualised as a collectively intelligent field or ecosystem, with a multitude of traditions of research and practice emerging and unfolding alongside one another, and these traditions are all connected through their shared use of the term *mindset*. A visualisation of this history is presented in Figure 2, with the origin phase depicted as an embryonic seed, early uses and supporting traditions represented as the soil for an emerging field, and current bodies of work symbolised by a diversity of young plants growing alongside one another.

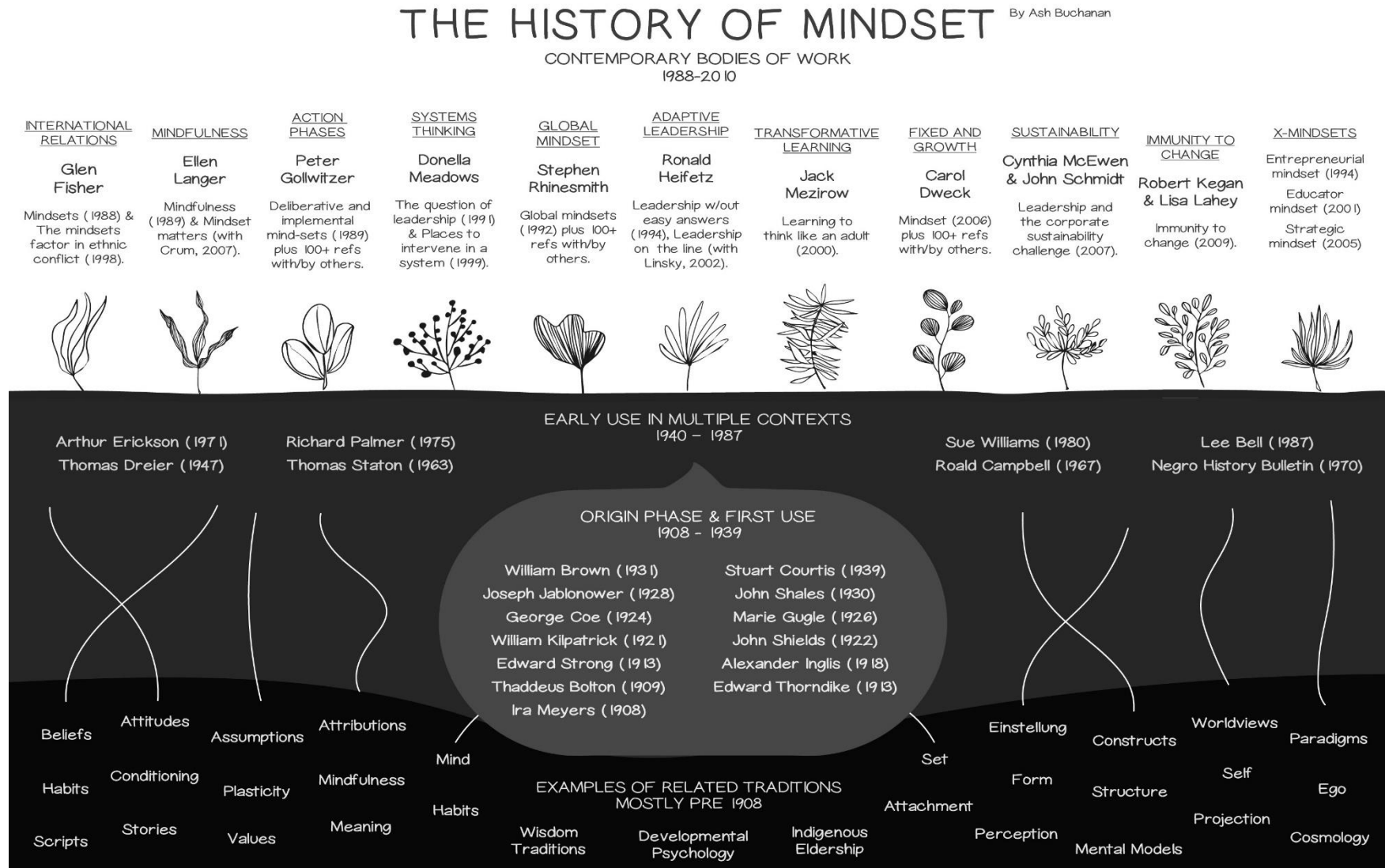
2) **Lack of historical acknowledgement.** A second observation, also observed by French (2016), is that mindset practitioners seldom acknowledge the ideas of the people that used the term before them, nor do they tend to acknowledge the ideas of the people using the term beside them. As a result, even though I have suggested that the field of mindset is a collectively intelligent field, it is also a highly fragmented field with the majority of practitioners using the term mindset without acknowledging how their use belongs to the overall history of mindset.

Moreover, the few practitioners that do offer some version of mindset history, tend to do so by telling a story that is partial and incomplete, and that sometimes contains inaccurate and unsubstantiated claims. Practitioners also sometimes misattribute the origins of mindset to people who were not actually involved in its first use. This lack of historical acknowledgement and circulation of partial stories is somewhat strange given that many of these practitioners are scientists and should be producing detailed accounts of mindset history as part of a comprehensive literature



Figure 2.

The origins and history of mindset visualised as a collectively intelligent field or ecosystem.





review process. Peer review processes should also be critically examining and requesting revisions of any stories of mindset history that contain misattributions and inaccurate claims. However, these scientific processes do not appear to be happening with much frequency and rigour in the field of mindset.

3) Partial definitions and theories. This fragmentation extends to the diverse perspectives that have been shared throughout history, with practitioners using the term in conflicting and incongruent ways. What appears to be happening is that most practitioners have studied a specific aspect of mindset, and then share a partial definition and theory on that aspect, without revealing how their partial definition or theory relates to the overall psychology of mindset. As a result, there is an abundance of partial definitions and theories, but a lack of clarity as to how these definitions and theories all belong to one comprehensive view of mindset psychology.

In other psychological fields, there is typically a concerted effort by practitioners to transcend any fragmentation that exists, so they can offer a holistic point of view of their area of study. For instance, in the field of emotions, numerous practitioners have studied emotions from multiple perspectives and engaged in the work to “transcend and include” these perspectives into a comprehensive view of the psychology of emotion. However, a comprehensive view of mindset psychology has not yet been explicitly studied and offered in the field of mindset. This is an area of opportunity for future research.

4) Self-referencing. A fourth observation is that a number of people in the field self-reference their own psychological ideas as being “mindset theory”. On one hand, it is great that some people in the field are coming up with what they consider to be a theory of mindset and share their ideas with the world. On the other hand, there are many who are applying this label to their own ideas, but their mindset theories are often partial and unrelated leading to confusion in the field. From a critical perspective, one has to question how appropriate and respectful it is to the broader field that some people self-reference their own ideas as being mindset theory. A true mindset theory would acknowledge and draw on the collective wisdom of everyone who helped walk the history of mindset into being and not centre around the ideas of one person or a few people.

5) Dominant paradigms. Fifth and finally, it appears that a few of the partial stories of mindset history and their corresponding mindset theories have formed into what Thomas Kuhn refers to as a scientific paradigm. Kuhn describes a paradigm as the “accepted examples of actual scientific practice... from which spring particular coherent traditions of scientific research” (Kuhn, 1962, p. 10). According to Kuhn, a scientific paradigm comes into being during the early stages of a field’s emergence, when many people are interpreting the same phenomenon in diverse and novel ways. Over time, one or more of these interpretations eventually establishes itself as the field’s dominant paradigm. These dominant paradigms become the socially accepted interpretations that are passed on to a great many people within the field, while the initial divergences are largely ignored, and new ideas are kept to the fringes.

One implication of dominant paradigms forming in the field of mindset is that they make the great many people who have internalised these paradigms pass on their limited understanding as if it is the legitimate foundation for work within the field. This mass passing on of a limited understanding creates a field-wide system of biases and power imbalances, whereby dominant paradigm ideas are more likely to be privileged and featured in research papers, educational



material, and search results, while other ideas do not get acknowledged, or are actively ignored and discriminated against. Consequently, dominant paradigms make it seem like there is only one mindset theory in the world, when in reality, there is a rich diversity of theories and ideas, but that diversity is marginalised because of the biases and power imbalances inherent in the dominant paradigm.

I leave it to you to discern which of the interpretations shared in this paper have gone on to become dominant paradigms in your life and the life of the social systems around you. If it happens that you have been conditioned by a dominant paradigm, consider how you can be courageous and skilfully ask what Meadows (1999b) refers to as “paradigm upsetting questions”, to open yourself and others up to a broader and more inclusive understanding of mindset history and its psychology.

An invitation

To conclude, I invite you to become part of the future of mindset psychology by strengthening your connection to its past. Let us work together to deepen our shared understanding of the collective wisdom that is present in the history of mindset, including the voices and perspectives of everyone who helped walk this field into being. Let us critically examine the stories of mindset history and mindset psychology we have internalised and update those stories so that they are more accurate and complete. In this manner, we can make our work in the field of mindset an interdisciplinary and intergenerational project, by putting this collective wisdom to work in the world and passing our learnings onto future generations. If this call-to-action sounds like a process in which you would like to participate, get involved and contribute wherever you are, however you can, so that together, we can actualise new paradigms of mindset psychology and practice.

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