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## Happy 100th anniversary, behavior therapy!

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Behavior therapy is generally aware of its impressive history, but apparently, we almost missed its 100th anniversary: In 1924, Mary Cover Jones, J.B. Watson's last doctoral student, first set out to formally apply principles of behavioral psychology to help children overcome excessive fear. She did this based on her knowledge of experimental psychology and rigorously tested the benefits and drawbacks of her interventions – principles still upheld in the field today. Although she never gave her approach a name, she has sometimes been recognized as the "mother" of behavior therapy; we should not miss to commemorate her accomplishments 100 years ago.

Behavior Therapy, History of Psychotherapy, Scientist-Practitioner Model, Behaviorism, Biography.

The outgoing year of 2024 marks the 100th anniversary of behavior therapy as we know it. Really, did we lose sight of such a significant anniversary? Well, to be precise, the term "behavior therapy" traces back to only about half that age (see Wilson, 1978), but the true story of behavior therapy arguably began in 1924 (Jones, 1975).

Of course, for ages, scholars have pondered on possibilities of modifying behavior and easing human suffering from mental disease; historians often refer to deep roots in the thinking of Greek stoics, Russian physiologists, or German humanists. Of particular importance to the later inception of behavior therapy were those who created and established experimental psychology (Wundt, 1874). However, although these scientists are clearly the grandfathers (yes, we are aware of mostly men), no one would call their reflections on the human condition "behavior therapy". This is because our understanding of behavior therapy involves a foundation in coherent psychological science, interventions carried out by formally trained professionals, and careful empirical evaluation.

All of these criteria were met by the work of Mary Cover Jones (1896–1987): Indeed, 100 years ago, she published the well-known case report of Little Peter in which she described his behavioral treatment (Jones, 1924b). The boy was virtually a scientific counterpart to the even better-known Little Albert. In his case study of Little Albert, Watson had demonstrated how behavioral principles are applicable in understanding the etiology of mental disorders (Watson & Rayner, 1920).

As an astute student of Watson's and other behaviorists' work, young Mary Cover Jones pioneered in our field by articulating the idea that the same logic could be applied to the reverse: "A study of how children's fears may be reduced or eradicated would seem to be the next point for

an experimental attack" (Jones, 1924a).

And yes, she did attack: Not only did she publish the well-documented case study of the application of reciprocal inhibition in a boy with an animal phobia with a behavioral method that we later learned to call systematic desensitization (Wolpe, 1958). She also ran the first systematic comparison of a series of behavioral interventions in a group of not less than 70 institutionalized children, many of whom suffered from "a marked degree of fear" (Jones, 1924a).

To treat them, she applied wisdom and methodological rigor. Most importantly, she fetched tools from a toolbox filled with knowledge about behavioral science. She observed her patients intently and amiably respected their individual needs. At the same time, she referenced and reflected on current developments in the then-blossoming literature of experimental psychology. Departing from usual care in institutions of her time, she delved adventurously into the quest for better interventions. Some of the approaches she tested later became staples of textbooks and manuals. As mentioned above, systematic desensitization did not venture far from her approach to replace a fear reaction with an appetitive response. Her method of social imitation was later (re-) introduced as vicarious extinction or modeling in social learning theory (Bandura, Grusec, & Menlove, 1967). Interestingly, while Jones observed its effectiveness, she was wary of potential risks of "negative adaptation," a method she characterizes as being "based on the theory that familiarity breeds indifference: if the stimulation is repeated often enough, monotonously, the subject finally becomes used to it and tempers his response accordingly." In our reading, this resembles what was later (re-)introduced as exposure training (Marks, 1987) only to become the most widely used and one of the best-studied interventions in our

Only many years later, after extensive discussions of further applications, did behavior therapy obtain its now established name (e.g., Eysenck, 1959; Lazarus, 1965). The science and application of behavior therapy have since proliferated around the globe, journals were established, manuals developed, and its application became the mainstay of academic training (Kanfer, 1990). In hindsight, some of behavior therapy's success may have been due to its ability to adapt to what was needed in the healthcare system and because the new tradition was able to integrate ideas from many sources. In particular, behavioral interventions have been extensively documented as effective and efficacious for the treatment of anxiety disorders, but, of course its principles were widely extended to further specified treatments for the most

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comprehensive range of mental disorders (Comer, 2024; Nathan & Gorman, 1998). Most importantly, as research designs were refined, it became necessary to step out of the lab and demonstrate that these interventions also work in routine care (Öst et al., 2023). However, the field has never run out of ideas on how its application should be further developed to advance its effectiveness (e.g., Alpers, 2010; Craske, Sandman, & Stein, 2022; Nugent, Pendse, Schatten, & Armey, 2023). During all this time, behavior therapy remained faithful to its scientific roots and methodological rigor, virtues already documented in those papers from 1924. Although this work is still being cited 100 years later (e.g., Hulsman, van de Pavert, Roelofs, & Klumpers, 2024), the anniversary was apparently not widely recognized.

So why did we almost miss the anniversary? Was it just too many things to do and too many issues to worry about in 2024? Well, probably that's not all. First, Jones gave most credit to men who laid foundations before her, and she never gave her treatment a name (Jones, 1975) – and, thus, of course, there was no three-letter acronym either ("CBT" was spawned much later). Second, she turned to a prolific career in developmental psychology, and those who defined the field of psychotherapy regularly overlooked her input (e.g., Bachrach, 1962; Wilson, 1978). Third, there was fierce competition by already much better-established schools of psychotherapy, whose tenet of treating underlying psychodynamic states rather than overt behavior she had challenged. Fourth, behavior therapists are apparently not fixated on the importance of neither their grandfathers nor their "mother," which was Joseph Wolpe's accolade for Mary Cover Jones (Krasner, 1988).

Nonetheless, we are grateful for intellectual stimulation as it was provided in Mary Cover Jones' work. And we are awe-struck when we look back at the many directions in which the journey has taken behavior therapy in the last 100 years.

#### Declaration of competing interest

The authors declare the following financial interests/personal relationships, which may be considered as potential competing interests: Georg W. Alpers reports a relationship with Center of Psychological Psychotherapy Mannheim that includes: board membership. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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