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Judith Spencer Olson, (Judith S. Reitman, since 1984 Judith S. (Reitman) Olson) an American [psychologist](#) and Professor Emerita, [University of Michigan](#) ^[1], [Donald Bren Professor of Information and Computer Science](#), professor in the [Paul Merage School of Business](#), and professor in the [School of Social Ecology, University of California at Irvine](#). She holds a [B.A. in psychology](#) from [Northwestern University](#), and a Ph.D. in [experimental psychology](#) from [University of Michigan](#). Her research interests include [human-computer interaction](#), [computer-supported cooperative work](#), the design of [information systems](#) for [virtual teams](#), and [cognitive](#) aspects of computing ^[2]. She is a [Fellow](#) of the [Association for Computing Machinery](#) and with her husband and colleague, Gary Olson, holds the Lifetime Achievement award from the [Special Interest Group in Computer Human Interaction](#) ^[3] ^[4].

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Chunking in Go

In the 70s, Judith S. Reitman worked along with [Walter R. Reitman](#), [James Kerwin](#), [Robert Nado](#), and [Bruce Wilcox](#) on goals and [plans](#) in a [Go](#) playing program, and further conducted [cognitive](#) experiments on the [chunking hypothesis](#) in Go ^[6].

Experts appear able to handle much larger amounts of specialized information than nonexperts, and handle it without an apparent superior memory capacity. This finding, based on research on chess players with chess information, was replicated on Go players with Go information. Assuming this superiority occurs because the experts process chunks of information through their limited capacities rather than individual elements, the question then becomes one of defining what the chunks are and how they are related.

To this end, the technique of partitioning recall and reproduction data into chunks on the basis of inter-response times (IRTs) (introduced in [their work on chess](#) by [Chase](#) and [Simon](#), 1973 ^[7]) was applied to the reproduction and recall of Go patterns by a Go Master and a Go beginner. Unlike its application in chess, no single IRT was able to produce consistent, veridical chunks for either Go player. Subsequent analysis of the underlying assumptions of the technique showed it to be limited to only those patterns that can be partitioned into a linear set of chunks, not nested chunks, and to situations in which retrieval and overt recall of each chunk is completed before retrieval of the next chunk. In a supplementary task, the Master Go player indicated that the Go patterns were not seen as linear chunks nor as strictly nested hierarchies, but rather as overlapping clusters. IRTs were found to be correlated with this structure, but were not reliable enough to reflect its details.

Selected Publications

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1974 ...

- [Walter R. Reitman](#), [James Kerwin](#), [Robert Nado](#), [Judith S. Reitman](#), [Bruce Wilcox](#) (1974). [Goals and Plans in a Program for Playing Go](#). Proceedings of the 29th [ACM](#) Conference, reprinted in [David Levy](#) (ed.) (1988). [Computer Games II](#). [google books](#)
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- [Judith S. Reitman](#) (1976). [Skilled Perception in Go: Deducing Memory Structures from Inter-Response Times](#). [Cognitive Psychology](#), Vol. 8, No. 3

1980 ...

- [Judith S. Reitman Olson](#), [William B. Whitten II](#), [Thomas M. Gruenenfelder](#) (1984). [A general User-Interface for Creating and Displaying Tree-structures, Hierarchies, Decision Trees, and Nested Menus](#). in [Yannis Vassiliou](#) (ed.) *Human Factors and Interactive Computer Systems*. [Ablex Publishing](#)

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- [Judith S. Olson](#), [Gary M. Olson](#), [Lisbeth A. Mack](#), [Pierre Wellner](#) (1990). [Concurrent Editing: The Group's Interface](#). [INTERACT '90](#), Third [IFIP](#) Conference on Human Computer Interaction.
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- [Judith S. Olson](#), [Gary M. Olson](#) (2000). *Distance matters*. *Human-Computer Interaction*, Vol. 15, No. 2, [pdf](#)
- [Judith S. Olson](#), [Gary M. Olson](#) (2003). [Culture Surprises in Remote Software Development Teams](#). [ACM Queue](#), Vol. 1 No. 9
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External Links

- [Judith S. Olson](#), [University of California at Irvine](#)
- [Judith Spencer Olson | Faculty History Project](#), [University of Michigan](#)
[Judith Spencer Olson | Memoir | Faculty History Project](#), [University of Michigan](#)

References

1. [^](#) [Adoption of Retirement Memoir, June 19, 2008](#) (pdf)
2. [^](#) [Judith S. \(Reitman\) Olson CV](#) (pdf)

3. [^ SIGCHI Awards — SIGCHI](#)
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6. [^ Judith S. Reitman \(1976\). Skilled Perception in Go: Deducing Memory Structures from Inter-Response Times. Cognitive Psychology, Vol. 8, No. 3](#)
7. [^ William Chase, Herbert Simon \(1973\). Perception in chess. Cognitive Psychology, Vol. 4, No. 1, pdf](#)
8. [^ Computer Go Bibliography by Michael Reiss](#)
9. [^ dblp: Judith S. Olson](#)
10. [^ Judith S. Olson - Publications](#)
11. [^ Human-computer interaction - Wikipedia](#)
12. [^ Object-oriented user interface - Wikipedia](#)

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