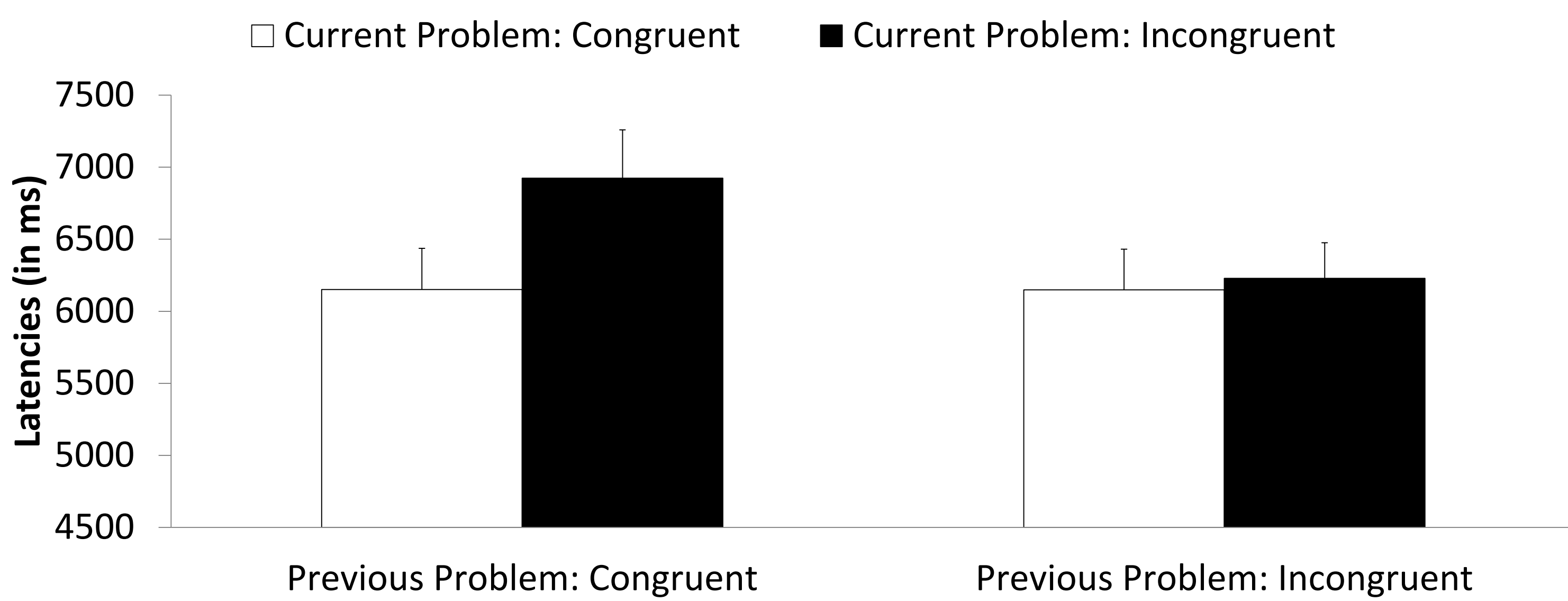


Aging and sequential modulation of strategy congruency effects: An ERP study in arithmetic

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CONTEXT & GOALS



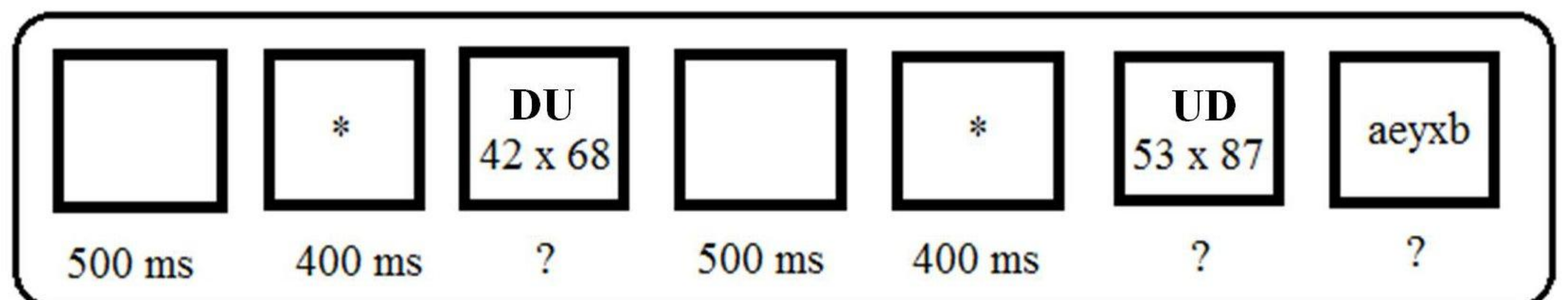
- **Strategy Conflict Adaptation Effects (SCAE)**
- Aging : Low control \neq High control = Younger adults

Here, we investigated:

- **ERPs associated with SCAE.**
- **Aging effects on ERPs/SCAE.**

METHOD

- Arithmetic problem solving (12 young adults (YA) and 12 older adults (OA)) \rightarrow **34 x 68**
- 2 cued strategies:
 - Down/Up (DU): 34 x 68 \rightarrow **30 x 70**.
 - Up/Down (UD): 34 x 68 \rightarrow **40 x 60**.
- **4 trial types:**



Congruent-Congruent	Congruent-Incongruent	Incongruent-Congruent	Incongruent-Incongruent
34 x 68 (DU)	26 x 72 (UD)	27 x 76 (DU)	32 x 69 (UD)
67 x 82 (UD)	23 x 69 (UD)	21 x 67 (DU)	68 x 83 (DU)

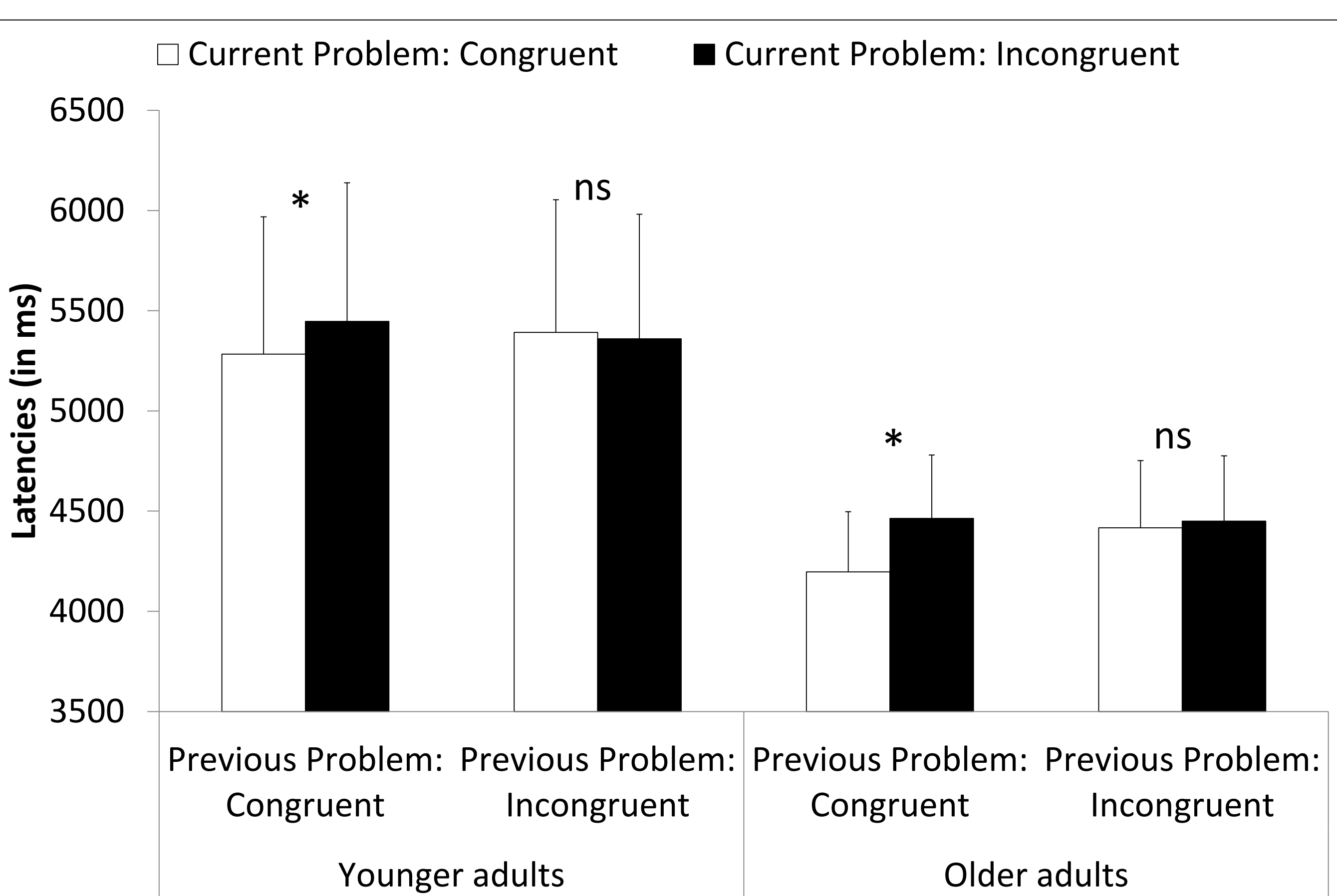
RESULTS

Behavioral results

- Significant SCAE ($p < .001$, $n^2 p = .49$).
- No significant difference between YA and OA ($p = .67$, $n^2 p = .01$).

ERPs results

Two temporal windows \rightarrow 200-550 ms and 850-1250 ms



Younger Adults

Older Adults

