

Preference Checklists: An Effective, Selective Choice Architecture

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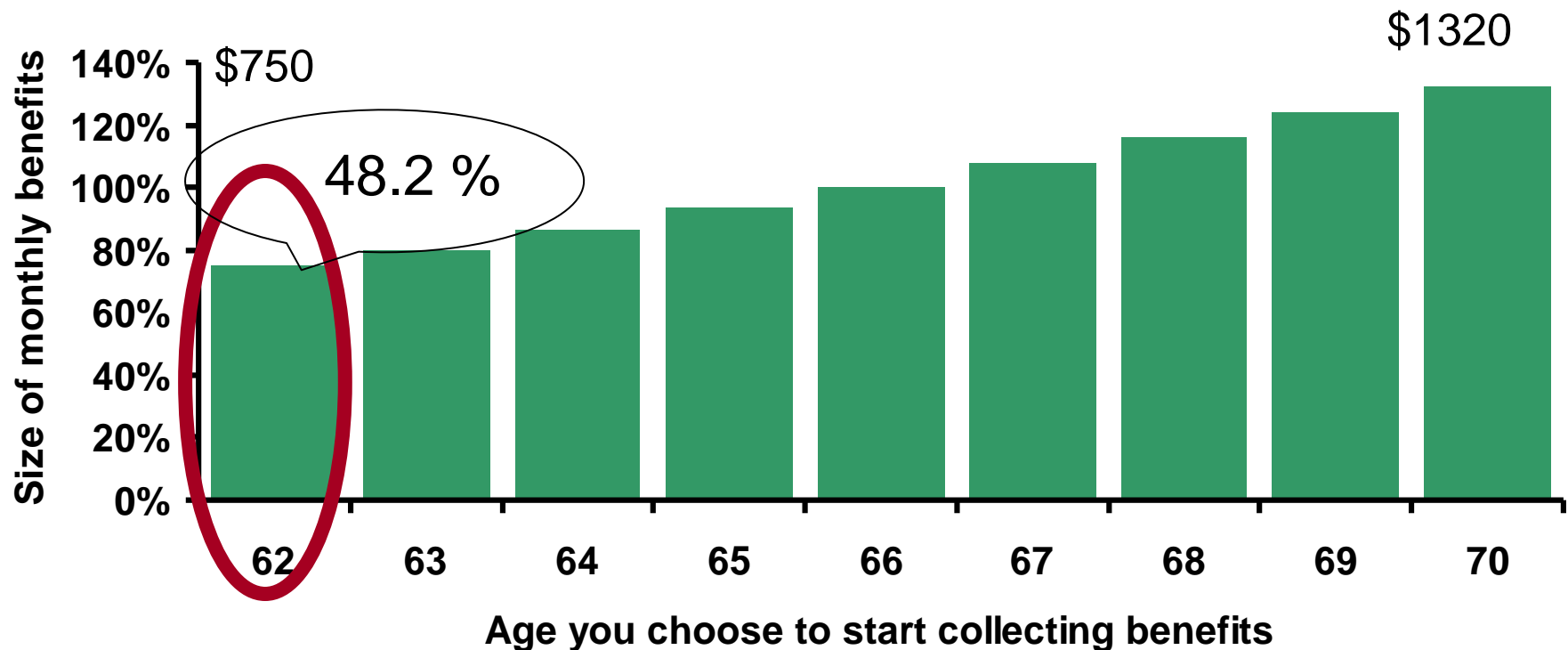
With Kirstin Appelt (Columbia Business School), Melissa Knoll| CFPB, & Jonathan Westfall (Delta State University)

Disclaimer: The views expressed are those of the speaker and do not necessarily reflect those of the Consumer Financial Protection Bureau or the United States.

Nudges as blunt tools

- **Nudges affect both people who would be helped by a change AND those who could be harmed**
- **First-generation nudges focus largely on changes in means**
 - What is the average impact?
- **We will focus on heterogeneity**
 - Who is helped and by how much?
 - Who is harmed and by how much?
- **Preference checklists as an effective and selective tool to improve choice**

What millions of Americans receive in the mail..



- With increasing longevity, it would be in many people's best interest to delay claiming past age 62.
- However, about 50% of Americans claim at age 62 (Muldoon & Kopcke, 2008; Song & Manchester, 2007)

Why early claiming?

- **Present bias?**

- When people consider claiming, they think about claiming as soon as possible
- Focus on immediate consequences/suppress consideration of long-term consequences
- If we can “frame the future first” we may overcome present bias and improve decisions (e.g., Weber et al., 2007)

- **Previous work shows changing order of thoughts changes claiming preferences**

Knoll, M. A. Z., Appelt, K. C., Johnson, E. J., & Westfall, J. E. (2015). Time to retire: Why Americans claim benefits early and how to encourage delay. *Behavioral Science and Policy*, 1(1), 53-62.

What are Preference Checklists?

- Lists of choice-relevant factors consumers might want to consider, but often do not

Early Claiming

"I don't want to have to work until I'm old—I

"My family does not have a history of living

"I don't like my job anymore, so claiming benefits now would let me leave that bad situation."

Do you think this thought (or one very similar) will cross your mind while making the decision about when to begin claiming benefits?

Choose one of the following answers

- Yes
- No
- I don't know

Next >>

Later Claiming

"I want to work as long as I physically can—

"My family has a history of living long, so I expect to live a long time too—I wouldn't

"Since people usually need more money to spend on medical bills as they get older, I'll delay claiming as long as possible—that way I'll have more money when I'll probably need it most."

Do you think this thought (or one very similar) will cross your mind while making the decision about when to begin claiming benefits?

Choose one of the following answers

- Yes
- No
- I don't know

Next >>

Are Checklists Effective *and* Selective?

• Effective

- Study 1: Replicate previous findings using more user-friendly and implementable approach
- Study 2: Understand mechanism underlying efficacy of checklists (hint: accessibility)

• Selective

- Study 3: Evaluate if checklists nudge the right people in the right direction
 - Compare to traditional nudge (default)
 - Account for person-specific factors (life expectancy)
 - Minimize errors, not just shift the mean

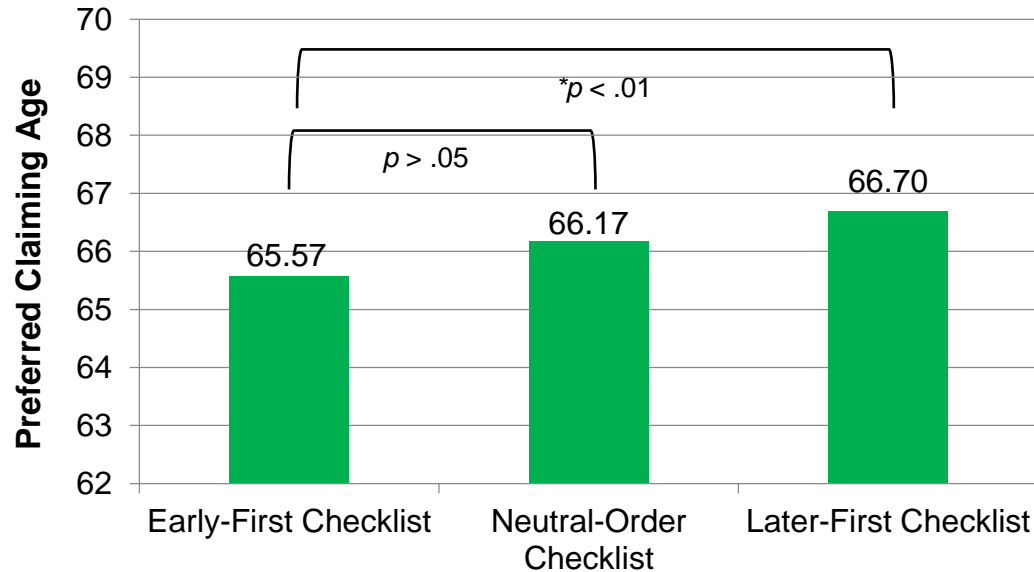
Method—Framed Field Studies (Harrison & List, 2004)

- **Similar procedure for all three studies**
 - Assess age and benefit eligibility
 - Read retirement benefits information
 - Randomly assign Ps to experimental conditions
 - **Conditions:**
 - **Neutral order:** two checklists of interspersed pro-early and pro-later items
 - **Typical order**—checklist of pro-early items followed by checklist of pro-later items
 - **Reverse order**—checklist of pro-later items followed by checklist of pro-early items
 - **Default:** set at the oldest claiming age of 70
 - **Control:** retirement benefits information only
-
- Hypothetical claiming decision
 - Post-choice questionnaires about choice experience and demos

Study 1

- **309 older Americans (ages 45-70) who are already eligible or expect to become eligible for SS retirement benefits**
- **Checklist items clustered into two sets of eight reasons each**
 - Typical order—pro-early items *then* pro-later items
 - Reverse order—pro-later items *then* pro-early items
 - Neutral order—pro-early and pro-later items interspersed
- **Is this something you would consider when making the claiming decision? “Yes, No, I don’t know”**

Study 1: Checklist order affects choice

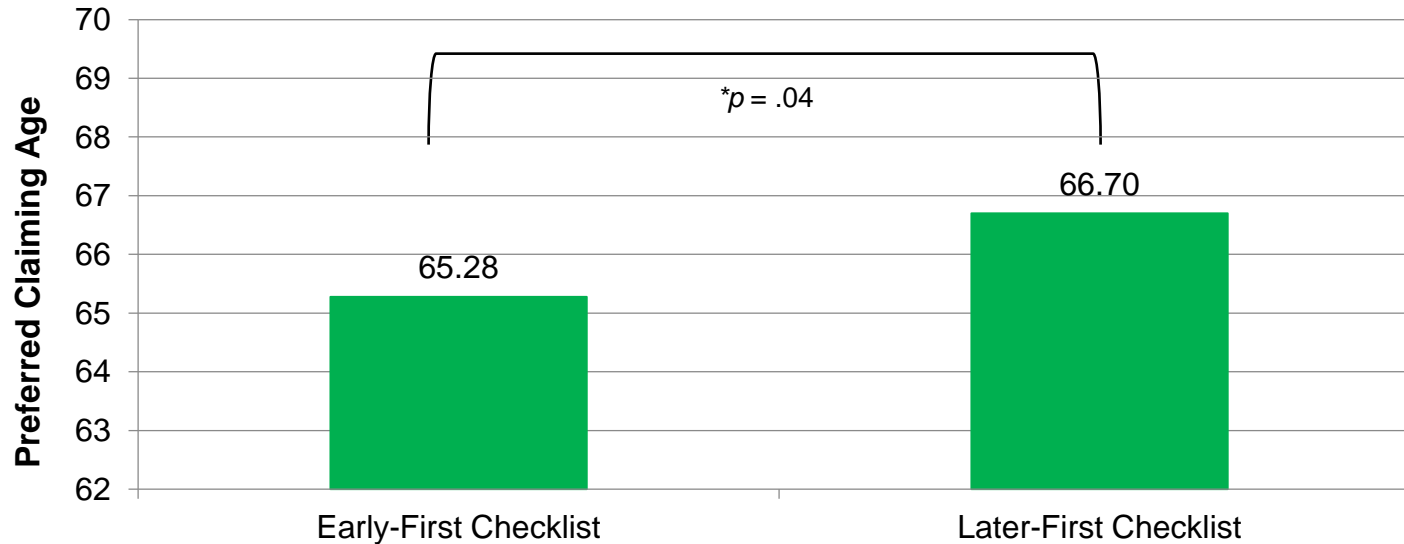


- Considering pro-later list before pro-early list delays preferred claiming age by, on average, **13.6 months**
- Neutral condition does not impact claiming age, ruling out simple reminder explanation
- Checklists are *effective* at encouraging delay

Study 2

- Checklists influence choice by manipulating accessibility of claiming-related thoughts
- 398 older Americans (ages 45-70) who are already eligible or expect to become eligible for SS benefits
- Same as Study 1, but eliminate neutral checklist condition
- Present each checklist item one at a time to measure reaction times (accessibility)

Study 2: Accessibility explains effectiveness



- Reasons in first checklist more accessible than reasons in second checklist
 - First checklist: $M = 63.51$ seconds
 - Second checklist: $M = 77.81$ seconds
- Difference in response times fully mediates relationship between order and claiming age, $p = .04$
- Ps presented with checklists in reverse order respond more quickly to thoughts favoring later claiming and this leads to preference for later claiming

	Item (% endorsing when in later list)	Increase if early	Increase Claiming
Claim Early	I want to collect benefits as soon as possible because Social Security may run out of money soon. (28%)	+16%	-.76
	Instead of waiting until 70 years old to get the highest benefits, it is best to claim early and invest the money. (24%)	+30%	-1.8
	Waiting to claim benefits does not increase the check that much, so it's not worth waiting. (31%)	+29%	-.66
Claim Late	Since people usually need more money to spend on medical bills as they get older, I'll delay claiming as long as possible—that way I'll have more money when I'll probably need it most. (40%)	+28%	+.85
	My family has a history of living long, so I expect to live a long time too—I wouldn't want to run out of money when I'm old (39%)	+19%	+.69
	I am comfortable with my current income level, so I can afford to delay claiming as long as possible. (35%)	+13%	+.59

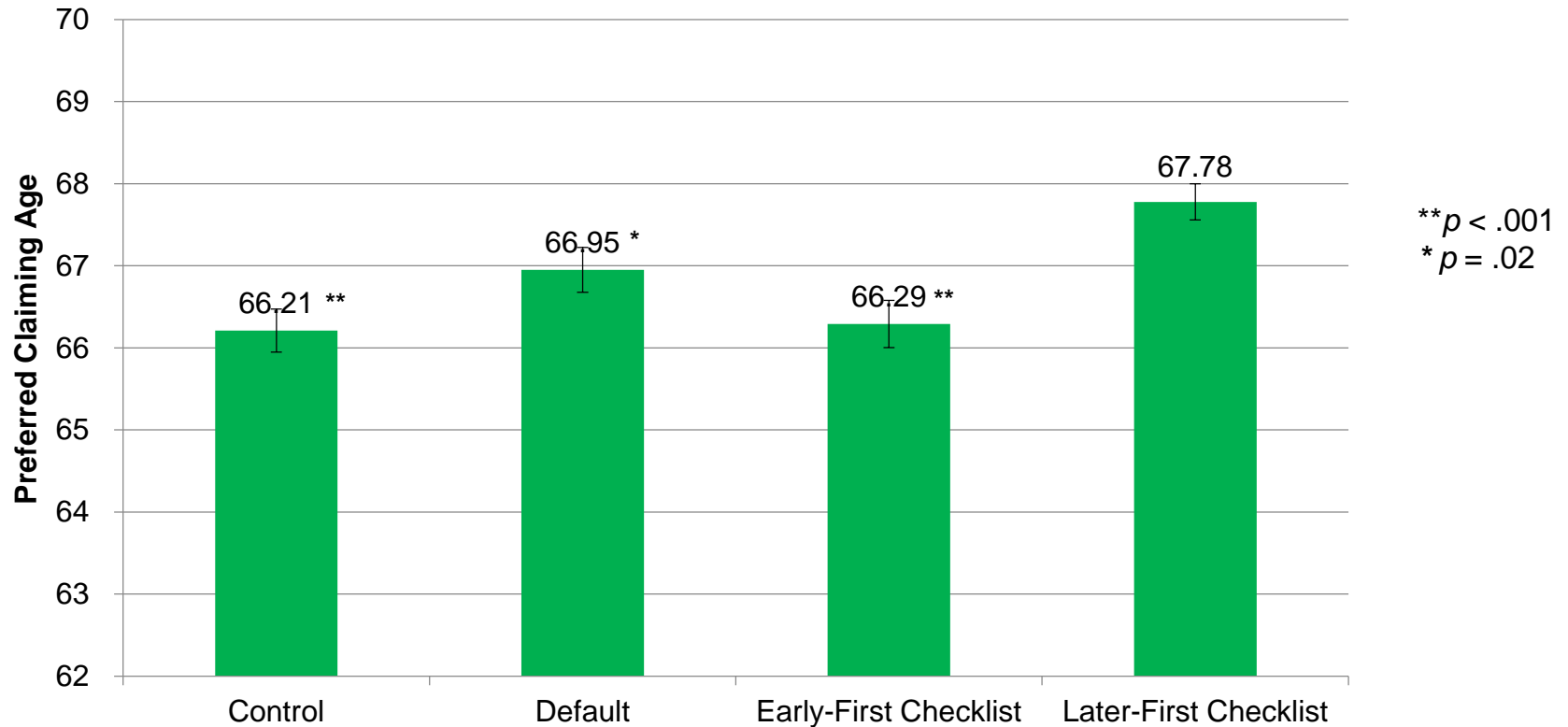
Study 3

- **Although majority of Americans should delay claiming to maximize benefits (Burtless & Quinn, 2002; Coile, Diamond, Gruber, & Jousten, 2002), optimal claiming age depends on personal factors**
 - Longevity
 - Income
 - Retirement savings
 - Job satisfaction and security
- **The longer an individual is expected to live, the later she should claim benefits (up to age 70)**
 - Focus on the ideal claiming age based on expected longevity
 - Life expectancy calculator

Study 3

- **Are checklists effective *and* selective?**
- **Compare checklists to a standard nudge—default set at 70**
- **451 older Americans aged 45-65 who are already eligible or expect to become eligible for SS benefits**
- **After retirement choice, 3 questionnaires:**
 - Choice experience → confidence, difficulty, control, satisfaction
 - Expanded demographics to calculate LE → age, gender, marital status, race, cigarette use, seatbelt use, annual car mileage, exercise
 - Other claiming-related factors → retirement savings, perceived longevity risk, perceived current health, job satisfaction, perceived job security

Study 3: Checklists more *effective* than defaults



- Compared to standard benefits information and a popular nudge (i.e., default), considering the future first is more effective at encouraging later claiming

$F(3, 447) = 7.92, p < .001, \eta_p^2 = .05$

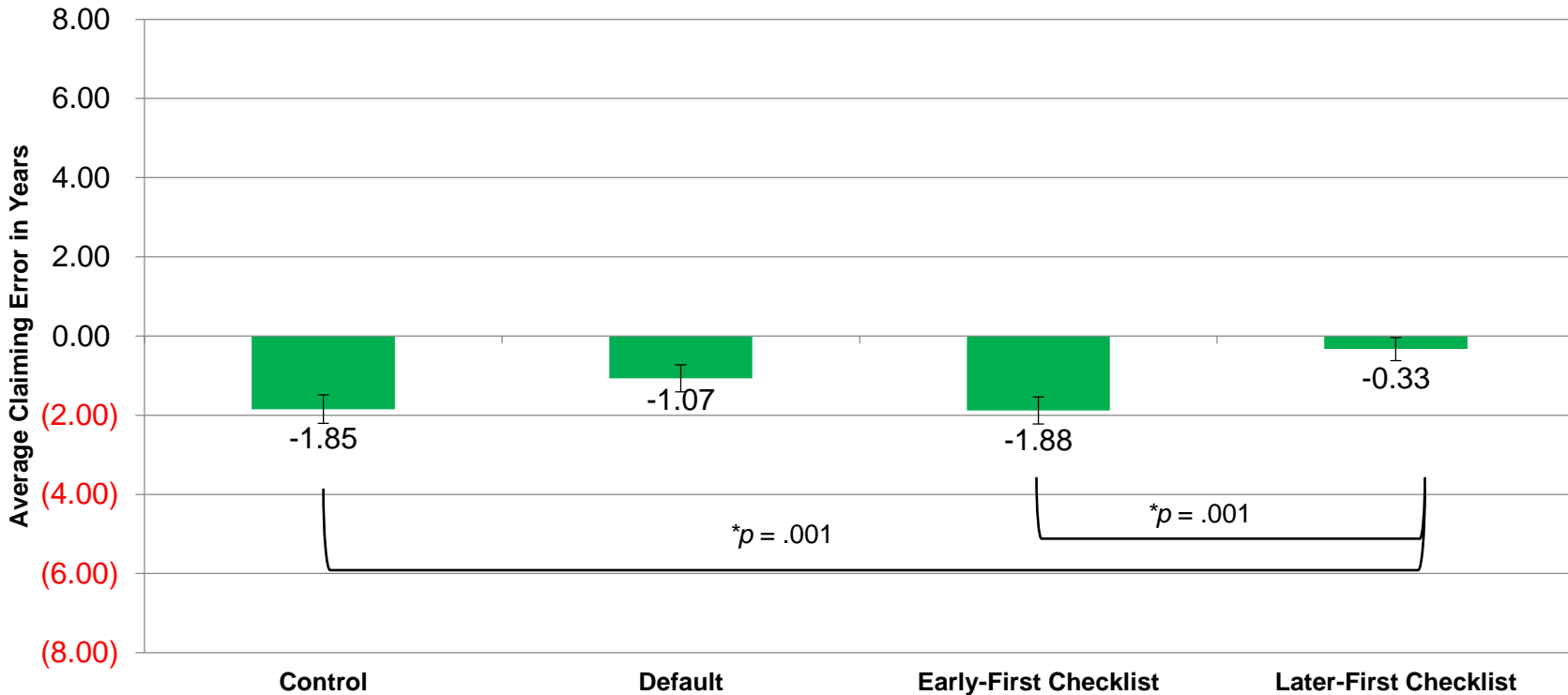
Study 3: Assessing Selectivity

- **Longevity-based ideal claiming age →**

Claiming age when P maximizes lifetime benefit

- Full retirement age (FRA; 66 or 67)
 - Benefit at FRA
 - Life expectancy estimate
-
- **Subtract longevity-based ideal claiming age from preferred claiming age to measure size of error**
 - negative error → Ps prefer to claim earlier than optimal
 - positive error → Ps prefer to claim later than optimal
 - zero error → Ps prefer to claim at optimal age

Study 3: Checklists minimize errors



- **Considering the future first minimizes difference between when participants *should* claim and when they *prefer* to claim**

$$F(3, 445) = 5.04, p = .002, \eta_p^2 = .03$$

Future Directions and Implications

- **Checklists are not perfectly selective, BUT**
- **Provide promise for “smart” architecture**
- **Give the right people the right checklist to minimize errors**

- **For average 62-year-old SS retirement benefit claimant**
 - Delaying claiming for 18 months →
extra \$122 *per month* (\$1,220 vs \$1,098 at age 62)
 - Translates to roughly extra \$53,000 in expected lifetime benefits

Thank you!
Questions?

Bonus Slides

Study 1

- **Web-based sample of 309 older Americans (ages 45-70) who are already eligible or expect to become eligible for SS benefits**
- **Scenario asks Ps to imagine they are approaching retirement and are eligible for SS benefits**
- **Use both text and a graph to explain how claiming benefits at different ages between 62 and 70 affects the monthly benefit amount**
- **Checklist items clustered into two sets of eight reasons each**
 - Early first
 - Late first
 - Interspersed
- **Read each item and check whether it is something you would consider when making the claiming decision: “yes, no, I don’t know”**
 - Intentionally non-evaluative responses draw attention to each reason without asking Ps to consider its relevance

Study 1: Results

- ANOVA shows main effect of checklist order:

$$F(2,306) = 4.00, p = .02, \eta^2 = 0.03$$

- Reverse order: $M = 66.70, SD = 2.60$
- Typical order: $M = 65.57, SD = 2.83$
- Neutral order: $M = 66.17, SD = 2.89$

} $*p < .01$
}
} $p > .05$

- Asking participants to consider a pro-later list before a pro-early list delays preferred claiming age by, on average, **13.6 months**.
- Neutral condition does not impact preferred claiming age, ruling out a simple reminder explanation.
- Checklists are **effective**

Study 2:

- Reverse order: $M = 65.91$, $SD = 2.83$
- Typical order: $M = 65.28$, $SD = 2.96$
- Output interference account
 - Items (whether pro-early or pro-later) in first checklist are more accessible (processed faster, log-transformed) than reasons in second checklist
 - First checklist: $M = 63.51$ seconds
 - Second checklist: $M = 77.81$ seconds
 - Linear mixed-effects model predicting sum of these times as a function of:
 - Checklist order (typical vs. reverse)

$p < .01 \rightarrow$ Checklist order changes accessibility
 - Checklist type (pro-early vs. pro-later)

$p = .02 \rightarrow$ Ps takes longer to respond to later claiming reasons
 - Interaction

} $*p = .04$

Study 2: Mediation

- **Do differences in accessibility (as measured by response time) mediate the effect of checklist order on claiming preferences?**
 - Regress preferred claiming age onto condition: $p = .03$
 - Regress the difference in response times onto condition: $p < .001$
 - Regress preferred claiming age onto condition and the difference in response times.
 - Condition is no longer a significant predictor: $p = .06$
 - Bootstrapping tests indicate that difference in response times fully mediates the relationship between order and preferred claiming age: $p = .04$
- **Ps presented with checklists in reverse order respond more quickly to thoughts favoring later claiming and this leads to preference for later claiming**

Study 3: Interventions versus Normative Predictors

- Between-subjects ANCOVA with condition as a predictor and normative predictors as covariates
- Condition remains strong predictor of preferred claiming age, even compared to traditional factors (eligibility, education, wealth, perceived longevity risk, perceived health, job satisfaction, job security)

Predictor	Preferred claiming age ^a	
	B ^b	SE ^b
Constant	66.78 ***	0.38
Early-first checklist condition	0.14	0.37
Default condition	0.64 †	0.37
Later-first checklist condition	1.53 ***	0.37
Eligibility (dummy coded)	-0.84 **	0.28
Female (dummy coded)	0.09	0.27
Married or living together (dummy coded)	-0.59 *	0.27
Standardized education	0.07	0.14
Standardized household income	0.42 **	0.16
Standardized retirement savings	-0.18	0.17
Standardized perceived longevity risk	0.25	0.16
Standardized perceived health	0.00	0.14
Standardized job satisfaction	0.40 **	0.14
Standardized job security	-0.06	0.14

Note. The dependent variable is preferred claiming age (62-70).

^a N = 451. ^b Parameter estimates from an ANCOVA

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$