

## Introduction

- Workplace wellness programs have increased in popularity due to increased employer concern for employee health [1].
- There are two types of wellness programs: health screening (identifying risks and manifest disease) and health management (providing interventions to reduce risk and prevent disease) [2].
- Research has shown that these programs have two benefits: they decrease employer costs (due to lack of productivity and to health coverage) and improve employee health [1, 2].
- Despite the benefits, worker participation has remained disappointingly low [2].
- Defaults, i.e., preselected options for choice, have been shown to be effective in influencing a wide variety of decisions, including health decisions [3, 4]. The present study investigated the potential for defaults to increase the uptake of both health-screening and health-maintenance.
- Additionally, given the paucity of research on the psychological mechanisms that give rise to the default effect [5], we explore the mechanisms behind the pull of defaults as well.

## Method

### Participants

- 233 participants age 18 and over who were recruited from Amazon Mechanical Turk.

### Survey Information

- All materials were presented using Qualtrics and Aspecter, a PHP based web application that allows participants to provide thoughts via a text entry box, one thought at a time, in order for the researcher to assess Query Theory mechanisms [6].

## Method (cont.)

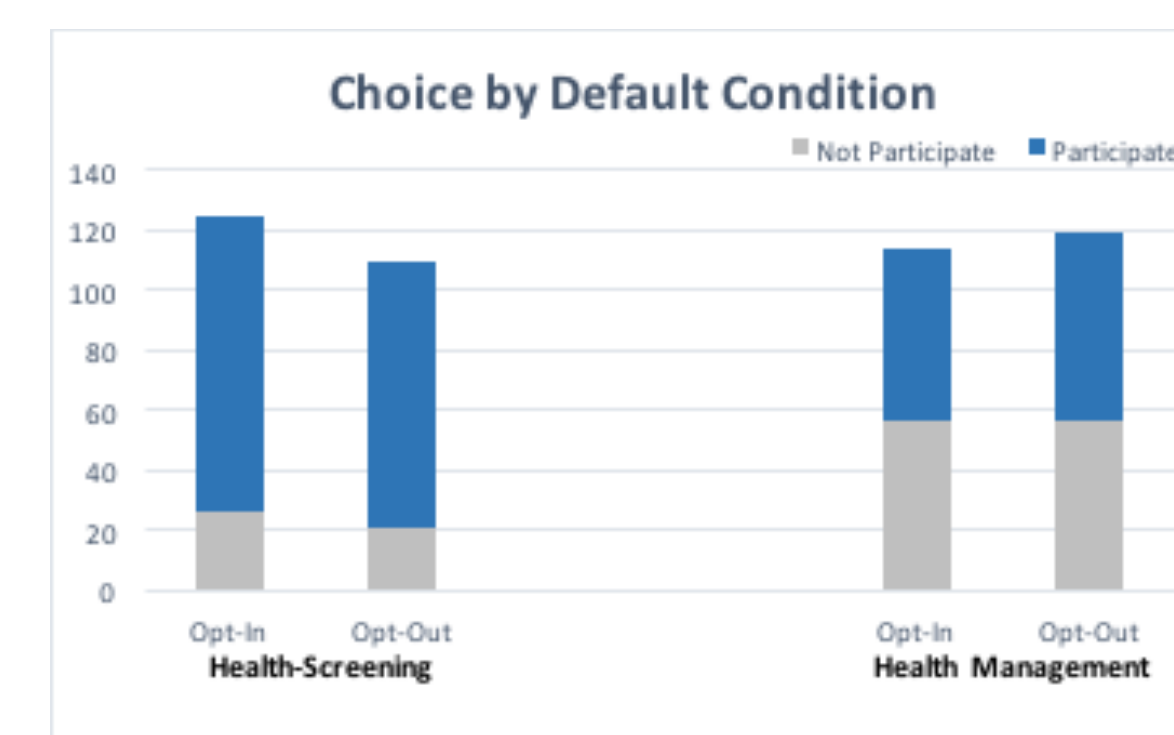
### Survey Information (cont.)

- Participants viewed two hypothetical decisions regarding wellness participation: in the first their company was offering free health screenings and in the second free health management programs. Participants were randomly assigned between the opt-out (automatically enrolled) and opt-in (switch to enroll) conditions.
- Participants were then prompted to list the thoughts they were considering before making their choice. Participants then made their choice with the default condition preselected, followed by a questionnaire [7] assessing direct (company, doctor) and indirect (social) implied endorsement on a 7-point Likert scale, and a prompt to rate their previously listed thoughts as for or against participation.
- Prior to completing the second scenario, participants completed a short health survey, which determined for which management groups they were recommended (i.e., smoking, weight-loss, exercise, stress management).

## Results

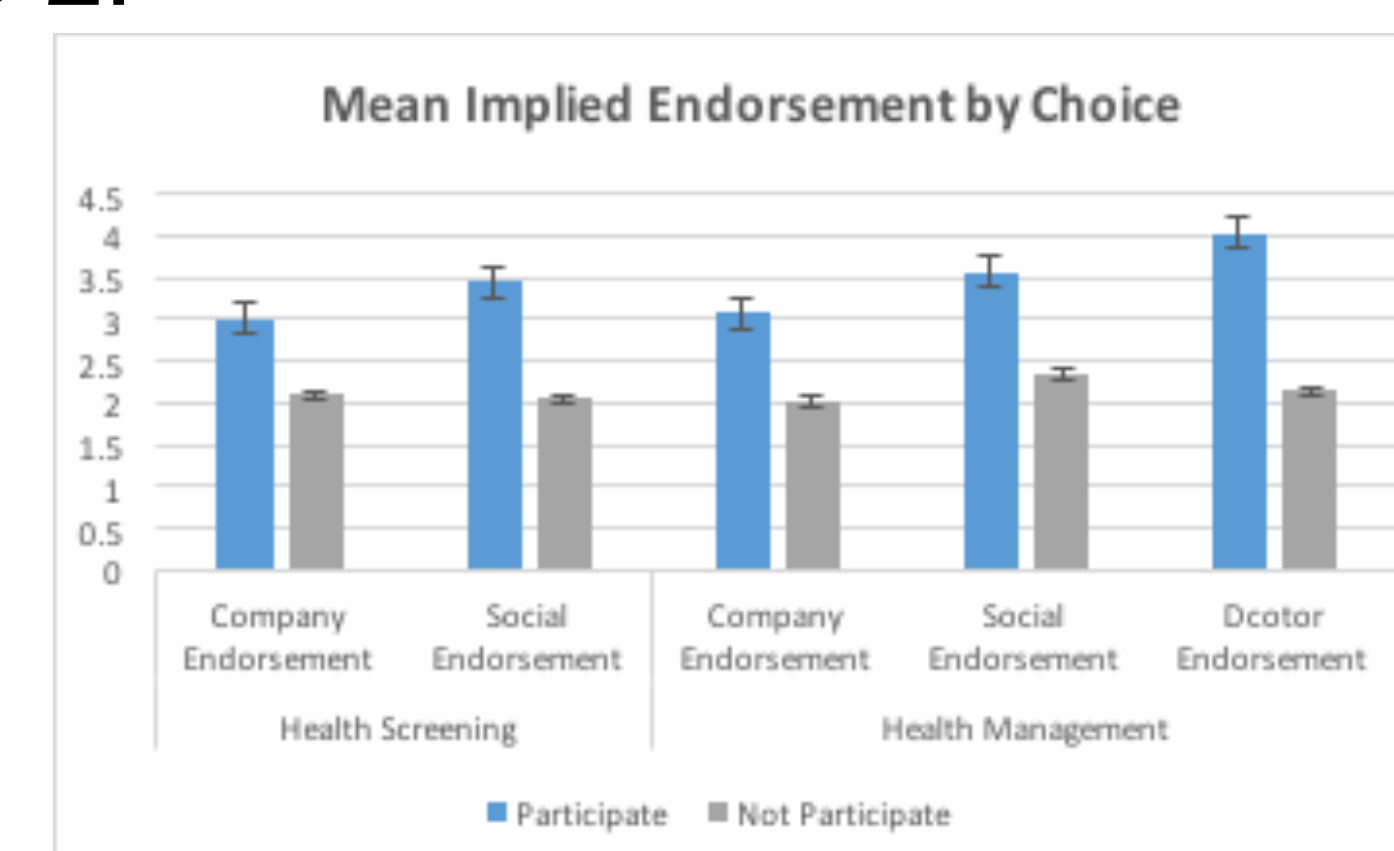
### Default Effects

- Surprisingly, defaulting participants into programs did not significantly change program uptake for both health screening and health management (both  $p > .6$ ).
- Figure 1:



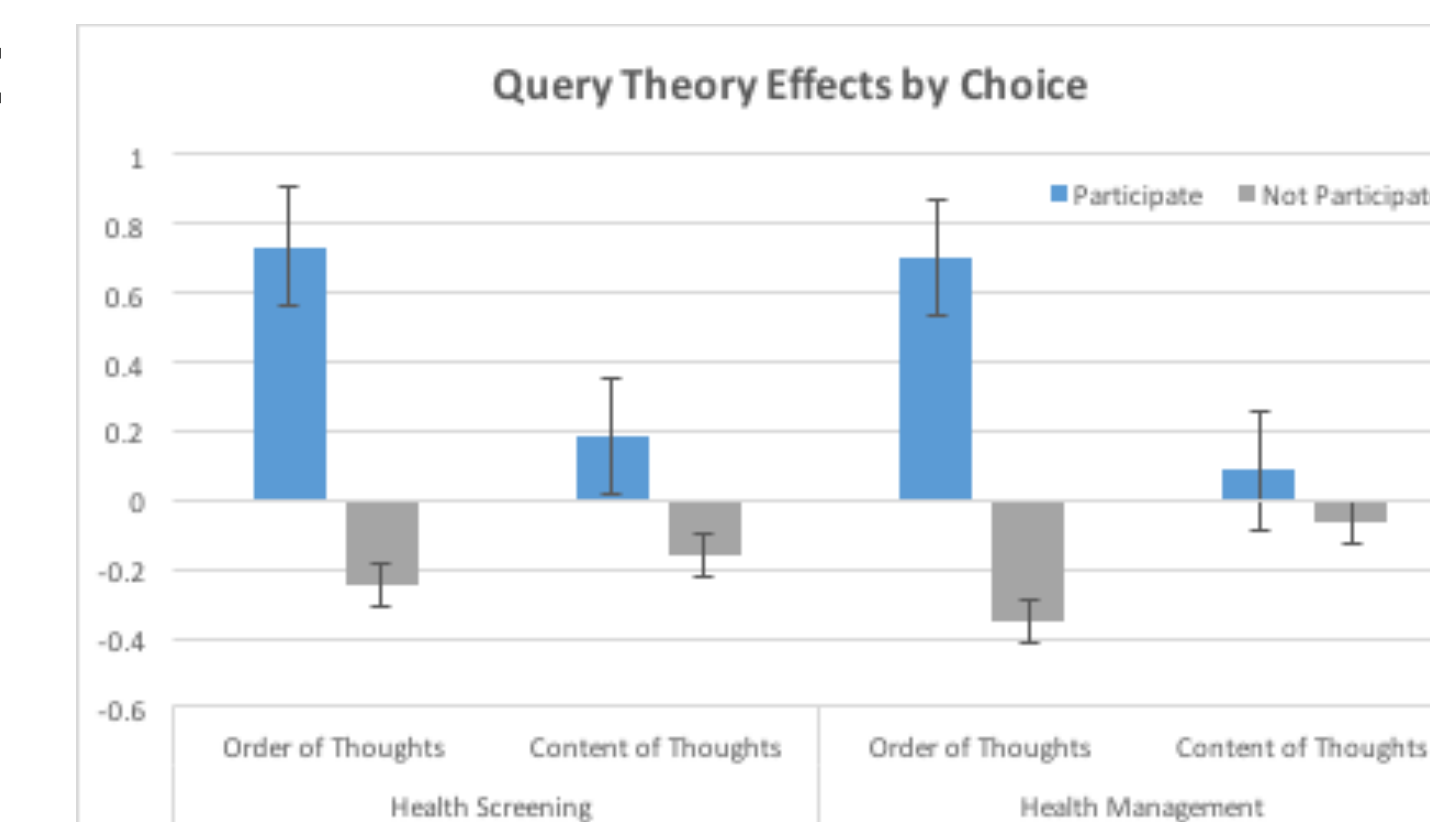
### Implied Endorsement Effects on Default-Taking and Choice

- Implied endorsement decreased the likelihood of taking the default in the opt-in, and increased the likelihood in the opt-out, suggesting that endorsement overrode the default effect for both wellness choices (all  $p < .05$ ).
- Higher ratings of implied endorsement were associated with greater likelihood of participation in wellness groups (all  $p < .05$ ). Figure 2:



### Query Theory Effects on Default-Taking and Choice

- For health screenings, default influenced order of thoughts and order of thoughts significantly mediated the relationship between default and choice ( $p = .02$ ). All other query theory effects on default-taking were nonsignificant.
- Those who listed thoughts in favor of the wellness programs first and listed more thoughts in favor of the wellness programs were more likely to participate (all  $p < .05$ ).
- Figure 3:



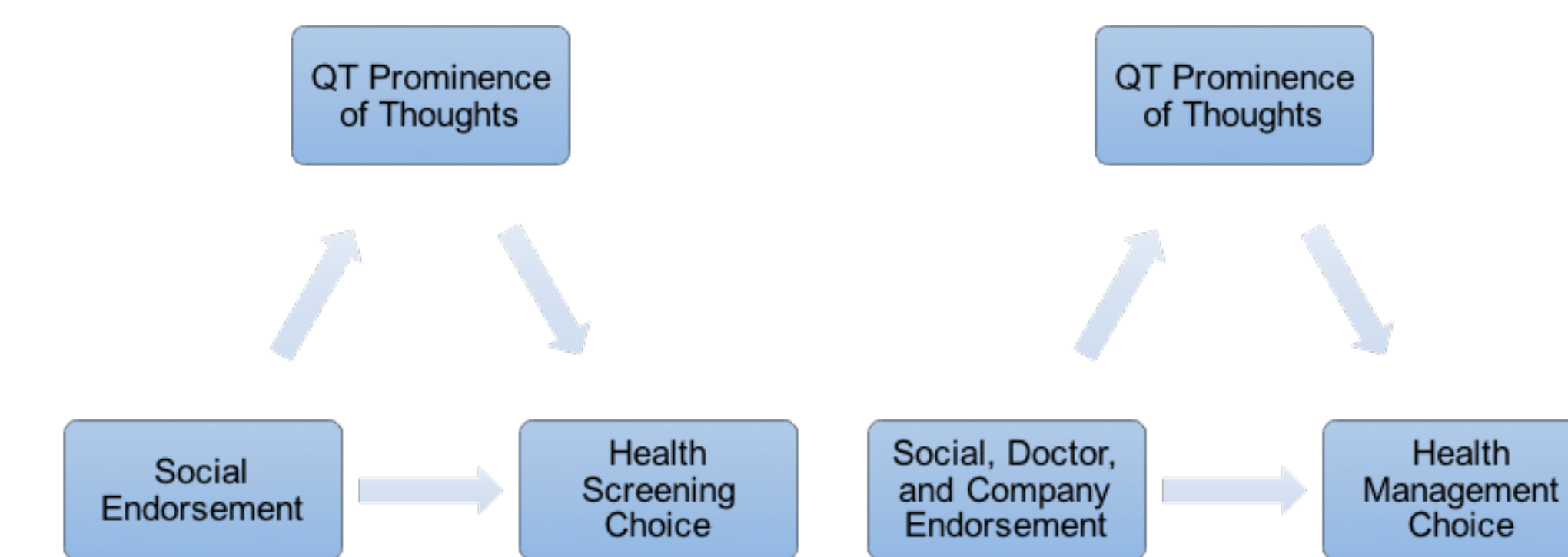
### Implied Endorsement Effects on Query Theory

- For health screening, social endorsement significantly positively effected both order and content of thoughts (both  $p < .05$ ).
- For health management, all three measures of implied endorsement positively influenced content, while only social and doctor positively influenced order (all  $p < .05$ ).

## Results (cont.)

### Query Theory Mediates Relationship Between Implied Endorsement and Choice

- For mediation analyses, order and content of thoughts were combined into one prominence of pro-participation thoughts measure, given their relationship and the ability of this measure to reflect prior results.
- Prominence of thoughts partially mediated the relationship between social endorsement and health screening choice ( $p < .01$ ), and between all three measures of endorsement and health management choice (all  $p < .01$ ).
- Figures 4 and 5:



## Conclusion

- Rather than focus on defaults, future wellness interventions should influence implied endorsement and capitalize on query-theory mechanisms to promote wellness participation.
- This is the first time implied endorsement has been shown to influence query theory processes. Implied endorsement may be an important influence on how people construct their preferences, and thus should be carefully considered by both scientists and policy makers when constructing decision spaces.

### References

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- <sup>2</sup>Mathe, S., Liu, H., Calvey, J. P., Huang, C. Y., Van Busum, K. R., Khodyakov, D., & Sher, V. (2013). Workplace wellness programs study: Final report. Retrieved from <http://www.ck12.org/ck12-wellness-study-final-report/>
- <sup>3</sup>Chapman, G. B., Li, M., Coby, H., & Yoon, H. (2010). Opting in vs opting out of influenza vaccination. *JAMA*, 304(1), 43-44. doi:10.1001/jama.2010.892
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- <sup>5</sup>Dinner, J., Johnson, E. J., Goldstein, D. G., & Liu, K. (2011). Partitioning default effects: Why people choose not to choose. *Journal of Experimental Psychology: Applied*, 17(5), 332-341. doi:10.1037/a002564
- <sup>6</sup>Johnson, E. J., Haubl, G., & Keenan, A. (2007). Aspects of endorsement: A query theory of value construction. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 33, 481-474.
- <sup>7</sup>McKenzie, C. R. M., Liersch, M. J., & Finkelstein, S. R. (2006). Recommendations implicit in policy defaults. *Psychological Science*, 17(5), 414-20. doi:10.1111/j.1467-9290.2006.01721.x