



Does participant's interest in the research topic predict careless responding behavior in a long online survey?

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INTRODUCTION

Across four studies, Berry and colleagues (1992) found 50-60% of participants admitted to carelessly responding to one or more items in a survey. Similarly, Baer, Ballenger, Berry, and Wetter (1997) found 73% of participants reported careless responding to one or more items in a survey. Careless responding occurs when a survey response given by a research participant may not reflect their definite thought (Nicholas, Greene & Schmolck, 1989). Careless responding creates error in the data, which reduces reliability and could potentially lead to inaccurate results (Meade & Craig, 2012).

It is important to examine variables that may influence careless responding behavior. For example, Bowling and colleagues (2016) found that agreeableness, motivation, extraversion, and conscientiousness predict careless responding. Additionally, Bowling et al. (2016) found class absences were negatively associated with careless responding. The authors also by found that GPA is positively associated with careless responding.

Another variable that might influence careless responding is interest in the topic of the study. For example, Bathgate and Schunn (2016) found that interest predicts self-reported science classroom engagement and participation in optional science-related learning among middle schoolers.

The aim of this study is to determine if interest in the research topic will predict CR behavior in a long online survey. Perhaps getting surveys in the hands of interested participants can reduce the rate of CR from the very beginning offering more reliable data and better use of researcher's time.

METHOD

Participants

294 Undergraduates

- 65.6% female, 32.3% Male, .3% trans male, .3% female/trans woman, 1.4% gender queer/gender nonconforming
- Mean age: 22.86 years old ($SD = 6.86$)
- Age range: 18-59
- 48.3% of the sample identified as Caucasian, 30.6% Latino or Hispanic, 7.3% mixed race, 5.4% Black, 4.8% Asian/Pacific Islander, 3.4% other, 1.7% Native American or Aleut, and 6.8% more than one of the categories

Procedure

Participants completed a series of questions in an online format. On a scale of 1 to 10, 1 being "not at all interested" and 10 being "extremely interested", how interested are you in the topic of the study (i.e., an examination of factors that influence attitudes towards homosexuality)?

Measures

Demographic questionnaire. The demographic questionnaire assessed variables such as age, gender identity, race/ethnicity, and year in school.

Attention check items. Seven attention check items were placed throughout the assessment battery (e.g., "For this item, please click the 'frequently true' circle" and "Circle C for this item").

Assessment battery. The assessment battery contained the following surveys: Compassionate Love Scale (Sprecher, 2005), Acceptance and Action Questionnaire for Stigma (Levin, Luoma, Lillis, Hayes, & Vilardaga, 2014), Interpersonal Reactivity Index (Davis, 1983), Acceptance and Action Questionnaire – II (Bond et al., 2011), Social Dominance Scale (Pratto, Sidanius, Stallworth, & Malle, 1994), Homophobia Scale (Wright, Adams, & Bernat, 1999), Self Report of Behavior Scale (Roderick, McCammon, Long, & Allred, 1998), Attitudes Towards Lesbian and Gay Men (Herek, 1988), Right Wing Authoritarianism (Rattazzi, Bobbio, & Canova, 2007), Religious Orientation Scale (Gorsuch & McPherson, 1989), and the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960).

Effort Item. We used the following item from Meade and Craig (2012): "Lastly, it is vital to our study that we only include responses from people that devoted their full attention to this study. Otherwise years of effort the researchers and the time of the other participants could be wasted. You will receive credit for this study no matter what, however, please tell us how much effort you put forth towards this study. I put forth ___ effort towards this study."

Attention Item. We used the following item from Meade and Craig (2012): "Also, often there are several distractions present during studies (other people, TV, music, etc.). Please indicate how much attention you paid to this study. Again, you will receive credit no matter what. We appreciate your honesty! I gave this study ___ attention."



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RESULTS

Attention check items. Two logistic regressions were conducted to examine whether interest in the research topic predicted careless responding behaviors (i.e. pass all attention check items; pass six or seven attention check items). Results of the first binary logistic regression indicated that there was not a significant association between interest and the research topic in passing all attention check items, $\chi^2(1) < .001, p = .99$. Results of the second binary logistic regression also indicated that there was not a significant association between interest and the research topic in passing six or seven attention check items, $\chi^2(1) = .18, p = .67$.

Self-reported effort and attention. A simple linear regression was calculated to predict self-reported effort put forth on the study based on interest in the research topic. The results were significant, such that higher levels of interest predicted higher levels of self-reported effort, ($F(1, 291) = 37.80, p < .001$, with an R^2 of .12. Another linear regression was conducted to predict self-reported attention levels while participating in the study based on interest in the topic. The results were also significant, such that higher levels of interest predicted higher levels of self-reported attention ($F(1, 292) = 33.19, p < .001$, with an R^2 of .10).

DISCUSSION

The current study showed interest in the research topic did not predict on careless responding. This is the first study to our knowledge that examined whether interest in the topic predicted survey responding behavior.

The current study also found that interest in the research topic predicted higher levels of self-reported attention and effort put forth on the study. This study's findings are similar to other studies that have shown that self-report data does not always match actual behavior (e.g., Boase & Ling, 2013; Tenkorang, Sedziafa, Sano, Kuuire, & Banchani, 2015; Wilcox, Bogenschütz, Nakazawa, & Woody, 2013).

Regarding limitations, the study only used undergraduates at a single university. Future studies could examine whether interest in the topic predicts lower careless responding behavior in shorter surveys. Future studies could also examine whether other variables may be associated with careless responding behaviors.