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BRIEF REPORT

Does Mentioning “Some People” and “Other People” in a Survey Question Increase the Accuracy of Adolescents’ Self-Reports?

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A great deal of developmental research has relied on self-reports solicited using the “some/other” question format (“*Some students* think that . . . but *other students* think that . . .”). This article reports tests of the assumptions underlying its use: that it conveys to adolescents that socially undesirable attitudes, beliefs, or behaviors are not uncommon and legitimizes reporting them, yielding more valid self-reports than would be obtained by “direct” questions, which do not mention what other people think or do. A meta-analysis of 11 experiments embedded in four surveys of diverse samples of adolescents did not support the assumption that the some/other form increases validity. Although the some/other form led adolescents to think that undesirable attitudes, beliefs, or behaviors were more common and resulted in more reports of those attitudes and behaviors, answers to some/other questions were lower in criterion validity than were answers to direct questions. Because some/other questions take longer to ask and answer and require greater cognitive effort from participants (because they involve more words), and because they decrease measurement accuracy, the some/other question format seems best avoided.

Keywords: adolescence, surveys, questionnaires, social desirability, self-concept

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Developmental psychologists often measure adolescents’ attitudes, beliefs, and behaviors by asking questions in what might be called a “some/other” format. Such questions first state what “some” people like, believe, or do, then state what “other” people like, believe, or do, and then ask the participant to describe himself or herself. For example, the some/other format is employed in Harter’s (1982, 1988) Perceived Competence Scale for children and adolescents. These batteries offer items such as, “Some students have a lot of friends, while other students don’t have very many friends” (Harter, 1982, p. 91) and then ask participants to indicate whether they are more like the first type of student or the second type of student.

Harter’s (1982, 1988) batteries have been used extensively in research on self-concept during the last 30 years, and variants of

the some/other format have been asked in major national surveys of adolescents, including the National Longitudinal Survey of Youth, 1997 Cohort (NLSY:97; Bureau of Labor Statistics, 2005), the National Education Longitudinal Survey, 1988 Cohort (NELS:88; Ingels, Abraham, Karr, Spencer, & Frankel, 1990), the Youth Studies Series (Jennings & Niemi, 1991), and the 4-H Study of Positive Youth Development (Lerner, von Eye, Lerner, Lewin-Bizan, & Bowers, 2010). As a result, many important lessons learned about the development of self-concept across adolescence have relied on the some/other question format (see, e.g., Harter, 2006).

However, all such questions could have been asked more efficiently in what could be called the “direct form,” by asking, for example, “Do you have many friends?” This approach requires participants to process fewer words and might therefore reduce the total cognitive burden of a questionnaire. Furthermore, reading fewer words might mean that participants could answer more questions during a fixed amount of time, thus allowing researchers to collect more useful data.

Harter (1982) argued that any added administration time and cognitive burden associated with the some/other format is worthwhile because this format is likely to elicit more accurate self-descriptions on matters where social desirability pressures might be present: “The effectiveness of this [some/other] question format lies in the implication that half of the children in the world (or in one’s reference group) view themselves in one way, whereas the other half view themselves in the opposite manner. That is, this type of question legitimizes either choice” (Harter, 1982, p. 89).

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Hence, if an adolescent is reluctant to offer an answer because doing so would be embarrassing, the some/other question form may allow him or her to feel more comfortable answering honestly.

As appealing as the some/other format might seem from this point of view, it might also cause unintended distortions in self-reports. By explicitly referring to the distribution of others' attitudes, beliefs, or behaviors, such questions might induce a cognitive focus on that distribution that might not have occurred otherwise. Inducing this might increase respondent burden further, by causing people to think about something they would not otherwise have thought about, rather than simply focusing on their own attitudes, beliefs, or behaviors when generating a self-report.

Mentioning the attributes of others might be especially problematic in another way as well. By suggesting that the population of adolescents is about equally split in terms of an attribute, the some/other question format might change adolescents' perceptions of social norms. According to social comparison theory, people compare themselves to their peers in order to determine the appropriateness of their own attitudes, beliefs, and behaviors (Gethals & Darley, 1977; see also Cohen & Prinstein, 2006). Changing young people's perceptions of others might lead some to see their own responses to a question as less normative and hence less appropriate, which might prevent them from reporting them accurately. Furthermore, by leading some participants to feel more out of step with their peers, the some/other format might motivate them to change their answers to match the perceived norm due to processes of informational social influence or conformity (Cialdini & Goldstein, 2004; Deutsch & Gerard, 1955). This process may be particularly strong for adolescents because they are especially reliant on peers as they develop their self-concepts and may therefore be more susceptible to social influence (Cohen & Prinstein, 2006; Hergovich, Sirsch, & Felinger, 2002; Steinberg & Silverberg, 1986). Consequently, the some/other format might lead some adolescents to give answers that they might not otherwise have given and that are less accurate reflections of their attributes.

In sum, when adolescents are asked a some/other question, three effects might ensue: (a) they might infer that a greater proportion of other people hold the undesirable attitude or belief or perform the undesirable behavior, as Harter (1982) suggested, (b) participants might feel more comfortable honestly reporting attitudes, beliefs, or behaviors they might otherwise have been hesitant to acknowledge, which (c) would increase the validity of their self-reports. On the other hand, while increasing cognitive burden, the some/other format might induce conformity to a manipulated social norm and therefore might not improve the validity of adolescents' self-reports and might even compromise validity.

We therefore set out to examine directly whether the some/other form improved or compromised the validity of self-reports among adolescents. All of the some/other items we examined were taken from Harter's (1982, 1988) batteries or from derivations of them. Participants were randomly assigned to be asked a question either in a direct form or in a some/other form, and we assessed whether the some/other form changed participants' perceptions of the percentage of their peers who held those attitudes, beliefs, and behaviors, changed the distributions of self-descriptions they provided, and changed the validity of those self-descriptions.

Method

Participants and Procedure

Eleven experiments were conducted with four samples of high school students. The first sample was composed of 9th and 10th grade students in a low-income, urban public high school in Oakland, California. The second was composed of 10th grade students in a similar school in New York City. The third was composed of 9th grade students at a middle- to upper income suburban public high school near San Jose, California. The fourth included 9th and 10th grade students at a low-income, urban public high school in San Jose, California. Consent and assent were obtained from 85% of the invited participants (Sample 1: $N = 160$; Sample 2: $N = 152$; Sample 3: $N = 72$; Sample 4: $N = 171$). They ranged in age from 13 to 16 years old.

Across the three urban schools (Samples 1, 2, and 4), 15.8% of participants were African American, 21% were Asian American, 51.5% were Hispanic, 15% were White, and the rest named a different race/ethnicity. Forty-two percent were boys. More than 75% received free or reduced price lunch, and only 13% of their mothers had a college degree or more education. In the suburban school (Sample 3), 1% were African American, 43% were Asian American, 10% were Hispanic, 43% were White, and the rest named a different race/ethnicity. Fifty-four percent were boys. Almost none of the students in Sample 3 received free or reduced price lunch, and 72% of their mothers had a college degree or more education.

The participants took about 30 min to complete questionnaires on computers during school hours. After completing the questionnaires, students were thanked and debriefed. They were not compensated.

Measures

Target items. The target items used in the experiments addressed various topics. Sample 1 was asked about having many friends, liking themselves, preferring hard problems over easy problems in school, getting good grades, and getting into trouble in school. Sample 2 was asked about getting into trouble in school and about getting good grades. Sample 3 was asked about getting good grades and whether they liked going to school. Sample 4 was asked about liking themselves and about whether they liked school (see the online supplement for all question wordings). Half of the participants were randomly assigned to be asked a target item in the some/other form, such as "Some students like the kind of person they are, while other students often wish they were someone else. How about you? Which of these statements describes you best?" (*response options*: I really like the kind of person I am; I sort of like the kind of person I am; I sort of wish I was someone else; I really wish I was someone else).

The other half of participants were asked the item in the direct form, such as "Which of these statements describes you best?" (*response options*: I really like the kind of person I am; I sort of like the kind of person I am; I sort of wish I was someone else; I really wish I was someone else).

Each target item asked about a different characteristic but was similar in format to the example shown above. Within samples, random assignment to question form for each target item was

independent of random assignment to question form for the other target items.

Perceptions of others' attitudes and behaviors. In order to assess whether the some/other form leads adolescents to perceive a flatter distribution of the proportions of others who hold various attitudes or beliefs or perform various behaviors, after participants answered the target question, they reported the percentage of other people whom they thought were described by one of the offered response options (responses ranged from 0% to 100%). For example, some participants were asked, "What percent of students do you think like the kind of person they are?" In nine of the experiments, participants were asked about the most desirable response option. In the final two experiments (about getting into trouble), participants were asked about the undesirable response option because doing so seemed more conversationally natural than asking what percent of peers "don't get into trouble." Responses to these questions were subtracted from 100 to permit comparisons across experiments.¹

Validity criteria. To assess response validity, we employed a method that has been used in a series of past publications (e.g., Chang & Krosnick, 2003; Shaeffer, Krosnick, Langer, & Merkle, 2005) to assess a form of criterion validity. Criterion validity can be assessed by correlating responses to a target question with "criteria," which are measures of other constructs that are expected, on theoretical grounds, to be correlated with the target items (American Educational Research Association, American Psychological Association, & National Council of Measurement in Education, 1999). For some of the target items, validity criteria were official records obtained from the schools (e.g., GPAs in four core subjects were used to evaluate the target item asking what kind of grades the student got, and official discipline referrals evaluated the target item about not liking school). For other target items, we employed criteria that were sensibly correlated with the target items (e.g., participants listed the names of their friends, and those lists were used to evaluate the target item about having many friends, and the 10-item *Childhood Depression Inventory* [Kovacs, 1992] was used to evaluate the target item about liking oneself). We then compared the strength of associations of the criteria with answers to the some/other and direct question forms. Stronger associations indicated greater criterion validity.

Analysis

Three analyses were conducted with the data from each experiment. We first examined whether, for each question, the some/other format led participants to perceive that fewer of their peers possessed the more desirable attribute.² To do so, we computed *t* tests assessing whether the percentage of people perceived to have the most socially desirable attribute was smaller among participants asked the some/other question than among participants asked the direct question.

Next, we explored whether the some/other question form led participants to offer the undesirable answer more often than in response to the direct question. We did so by estimating the parameters of logistic regression equations predicting a dummy variable representing the most desirable response to target questions using a dummy variable representing question form as a predictor.

Finally, we compared the criterion validities of the questions by estimating the strength of the relations of answers to a target question with criteria that were measured identically for all participants. If the direct form yielded weaker associations than did the some/other form (i.e., lower odds ratios in an ordered logistic regression predicting responses to the target item), that would suggest that the former produced less valid measurements than the latter. If the direct form yielded stronger associations than did the some/other form (i.e., higher odds ratios in the same ordered logistic regression), that would suggest that the former produced more valid measurements than the latter. To test whether these associations significantly differed across question forms, for each experiment we estimated the parameters of this ordered logistic regression equation:

$$\begin{aligned} \text{Target Item} = & \beta_0 + \beta_1 (\text{Criterion Item}) \\ & + \beta_2 (\text{Some/Other Question Form}) + \beta_3 [(\text{Criterion Item}) \\ & \times (\text{Some/Other Question Form})]; (1) \end{aligned}$$

The β_3 coefficient gauges whether criterion validity differed between the two question forms.

To efficiently summarize the findings of these experiments and to conduct statistical tests with maximum power, we followed the approach of some previous investigations of questionnaire design issues (e.g., Narayan & Krosnick, 1996) by conducting fixed effect meta-analyses combining across experiments (using Comprehensive Meta-Analysis software, Version 2; Borenstein, Hedges, Higgins, & Rothstein, 2005). To conduct these meta-analyses, for each of the three types of analyses, the key statistic was converted to a standardized effect size for each experiment (e.g., Cohen's *d* or odds ratios). We then calculated the meta-analytic average of those effect sizes across experiments to gauge the practical significance of the changes in question format. Last, the statistical significance of the meta-analytic average effect size for each analysis was gauged via a *Z* statistic. To facilitate interpretation of the results, we calculated separate meta-analytic averages within each question format for each dependent measure. For instance, for each target item, we calculated the odds ratios for the relation with the criteria under the two question formats and then combined these odds ratios within each format using a meta-analysis. Below, we present these meta-analytic results. For the results from each individual experiment, see the tables presented in the online supplement.

¹ In a sensitivity analysis, we found that the effect of the some/other form on perceptions of response distributions was not moderated by this difference in measurement approach.

² We identified the most desirable attributes by conducting a focus group with high school students ($N = 8$), during which adolescents were asked to identify which answers would be most admirable and which would be the most embarrassing. In every case, there was consensus among the students (e.g., earning high grades was universally named as more desirable than earning low grades).

Results

Perceptions of Others' Responses

Consistent with Harter's (1982) presumptions, adolescents thought that significantly fewer of their peers possessed the most desirable attribute after being asked the some/other form of the target question than after being asked the direct form of it, $M_{\text{direct}} = 58.35\%$, $M_{\text{some/other}} = 55.80\%$ (difference: $d = -0.11$, $Z = -2.08$, $p < .05$). This effect was homogeneous across the 11 experiments, test of heterogeneity: $Q(10) = 4.85$, $p = .90$. Overall, this finding is consistent with the conclusion that the some/other form subtly communicated to participants that undesirable attitudes, beliefs, or behaviors were more normative.

Responses to the Target Items

Also as anticipated, the some/other form significantly reduced the proportion of adolescents who gave the most desirable response when reporting their own attributes: $M_{\text{direct}} = 39.88\%$ and $M_{\text{some/other}} = 33.26\%$ (difference: odds ratio = .73, $Z = -2.92$, $p < .05$). This effect was homogeneous across the 11 experiments, $Q(10) = 7.13$, $p = .71$. Thus, it seems that the some/other form also led participants to more readily describe themselves as possessing undesirable attributes.

Validity

Challenging the notion that this difference in distributions of responses is evidence that the some/other form enhanced self-report accuracy, criterion validity was significantly lower for the some/other form than for the direct form. Associations between the validity criteria and responses to target questions in the some/other format (Meta-analytic average odds ratio across 11 experiments: 1.04) were significantly weaker than those associations using the direct format (Average odds ratio: 1.08; Meta-analytic average of the differences between question forms [i.e., the β_3 coefficients in Equation 1]: $d = -0.11$, $Z = -2.10$, $p < .05$).

Although this effect was heterogeneous across experiments, $Q(10) = 34.30$, $p < .001$, features of the target items or validity criteria did not moderate this result. Nonsignificant moderators included the use of objective school records as validity criteria (in six experiments) versus relying on self-reports (in five experiments), $Q(1) = .70$, $p = .40$. Also nonsignificant as a moderator was the use of items not involving social desirability pressures (i.e., the target item asking about liking difficult school assignments) versus those that did (i.e., all other target items), $Q(1) = 1.22$, $p = .26$. Thus, the ineffectiveness of the some/other form in improving response accuracy did not seem to depend on the types of questions asked or the methods used to evaluate their validity.

Interestingly, the sample used was a significant moderator of the effects of the some/other form on response validity, $Q(3) = 27.05$, $p < .001$, and, once sample was accounted for as a moderator, there was no remaining heterogeneity across samples, $Q(7) = 6.87$, $p = .44$, reinforcing the conclusion that the results were not dependent on the target item or validity criterion used. Samples 2, 3, and 4—two urban, diverse samples and one more suburban, more homogeneous sample—showed identical results, with all three showing that the some/other form significantly reduced va-

lidity relative to the direct form, $ds = -.41$, $-.36$, and $-.37$, $ps < .05$, respectively. However, Sample 1—also a low-income, diverse sample—showed a smaller, opposite trend ($d = 0.17$), $p < .05$. Sample 3, though it differed in terms of participant demographics, produced nearly identical results to the urban populations used in Samples 2 and 4. Surprisingly, the one sample to show different effects—Sample 1—was highly similar to Samples 2 and 4 in terms of race/ethnicity, age, and socioeconomic status. We do not see an explanation for the heterogeneity in the effect of the some/other question format on validity across samples. The methodologies used to collect the data were identical across studies, including the same data collection protocols and the same Internet survey software, ensuring identical visual presentation of the questions. Testifying to the similarity between the studies, we found no heterogeneity in effect size for distributions of self-descriptions or for perceived distributions of others' attributes. Hence, it is safest to draw the general conclusion supported by our meta-analysis: the some/other question form reduced response validity in our experiments.

Discussion

This meta-analysis of 11 experiments showed that when adolescents were asked questions that described what "some students" and "other students" thought or did, it communicated to them that fewer of their peers possessed the most desirable attribute. In addition, conveying this message changed the observed distributions of participants' self-descriptions: they reported, for example, getting worse grades, having fewer friends, getting into trouble more, and wishing they were someone else more often. It is tempting to see this as evidence that the some/other form increased honesty. However, criterion validity was significantly reduced in the some/other question form relative to the direct form. That is, these increased reports of undesirable attributes were less strongly related to validity criteria such as school grades, absences, discipline referrals, or scores on depression inventories. Therefore, although the some/other form might appear to have improved accuracy by encouraging reports of undesirable attributes, the changes in reports actually reduced validity.

The failure of the some/other format to improve response accuracy seems especially problematic in light of the fact that this question format took longer for participants to read and answer. In the experiments described here, the stem and response options for the some/other questions averaged 60 words each, compared with just 42 words for the question stem and response options in the direct form of the same questions. Not surprisingly, then, a web-administered pilot study we conducted showed that people answered direct format questions more quickly (an average of 13.17 s) than they answered some/other format questions (an average of 15.70 s), $t(293) = 2.21$, $p < .05$. Therefore, on practical grounds, the direct format seems preferable.

How is it possible that the some/other format could increase reports of undesirable attributes while not improving validity? The some/other format was advocated on the assumption that it allows people with unpopular attributes to feel comfortable reporting them. That may be true. But this logic ignores the fact that the some/other format may also tell participants that socially desirable attributes are less common than they thought. Distorting adolescents' perceptions of others' attributes might have discouraged

those who held socially desirable views from reporting them accurately, due to conformity. This may be especially true during the developmental stage of adolescence, when people are particularly attuned to social influence processes (Cohen & Prinstein, 2006; Hergovich et al., 2002; Steinberg & Silverberg, 1986). In addition, the added cognitive burden of reading and processing more words and being led to think about other people's attributes may have interfered with the process of reporting their own attributes. It will be important in future research to test these mechanisms more directly. At present, however, it seems best to avoid question formats that intentionally manipulate adolescents' perceptions of social norms and that unnecessarily increase respondent burden.

The evidence regarding validity reported here suggests that we reconsider the presumptions underlying some past studies that have explored methods to improve the accuracy of participants' self-reports. Past studies have compared the distributions of adolescents' self-reports obtained using one method to the distributions of their self-reports obtained using a different method that was intended to increase honesty (e.g., comparing traditional paper-and-pencil surveys to audio computer-assisted self-interviewing surveys; Turner et al., 1998). Many such studies have documented increases in adolescents' reports of sensitive attributes, as we did in the present study. Scholars have often assumed, however, that "the observed increase in reporting of these behaviors is, in fact, more accurate" (Turner et al., 1998; p. 871) and have only infrequently evaluated the reports obtained under the different conditions using objective validity criteria. The meta-analysis reported here documented an increase in reports of undesirable attributes that was *not* accompanied by an increase in validity. In fact, the observed increase in undesirable reports was accompanied by significantly *reduced* validity. Thus, it would be helpful for future investigations of measurement methods to assess validity using objective criteria such as those used in the present study instead of assuming that an increase in reports of embarrassing attributes is, by itself, evidence of greater honesty and accuracy.

The present study is not without some limitations. In future research, it will be important to replicate these results using a broader range of items. Such tests would be strengthened by using additional validity criteria. Nevertheless, the present study asked about a diverse array of topics—social relationships, self-esteem, deviant behavior, academic achievement; it compared answers to established validity criteria—such as widely used clinical instruments and objective school records; and it used a statistical method, meta-analysis, that combined across this diverse set to yield general conclusions. Our conclusions were supported with data from multiple sources, including several samples of low-income, diverse high school students and a sample of middle-income, suburban, mostly White and Asian high school students. Hence, future investigations employing additional target items in broader samples may very well lead to similar conclusions.

Finally, many administrations of Harter's (1982, 1988; Messer & Harter's, 1985) some/other items have occurred with self-administered questionnaires (Donnellan, Trzesniewski, Conger, & Conger, 2007), and all of the experiments reported here examined the functioning of the some/other question format in that mode. However, much past research indicates that in the self-administered mode, participants report more undesirable attributes

than when talking with an interviewer (Chang & Krosnick, 2009, 2010; Harmon et al., 2009; Holbrook & Krosnick, 2010; Turner et al., 2009; Turner et al., 2005; Villarroel et al., 2006). Therefore, it may be interesting for future research to compare the validity of direct and some/other questions when data are collected orally by interviewers. Perhaps in that mode, social desirability pressures are greater, and the some/other question format might yield more valid responses than do direct questions. On the other hand, it is also possible that the enhanced suggestibility of young people (Ceci & Bruck, 1993) would lead the some/other format to be especially disruptive among them instead.

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