

The Disappearance of Independence in Textbook Coverage of Asch's Social Pressure Experiments

Teaching of Psychology 2015, Vol. 42(2) 137-142 © The Author(s) 2015 Reprints and permission: sagepub.com/journalsPermissions.nav DOI: 10.1177/0098628315569939 top.sagepub.com



Richard A. Griggs¹

Abstract

Asch's classic social pressure experiments are discussed in almost all introductory and social psychology textbooks. However, the results of these experiments have been shown to be misrepresented in textbooks. An analysis of textbooks from 1953 to 1984 revealed that although most of the responses on critical trials were independent correct ones, textbooks have increasingly over time emphasized the minority conformity responding and deemphasized the majority independent responding. An analysis of 20 introductory psychology textbooks and 10 introductory social psychology textbooks revealed that this distorted coverage has not only persisted but increased over the past 30 years. Given the entrenchment of such coverage in current texts, a suggestion for how to address this distorted coverage without major text revision is provided.

Keywords

conformity, independence, introductory psychology, social psychology

According to Jarrett (2008), the foundation of introductory psychology textbooks is comprised of classic studies, such as Zimbardo's Stanford Prison Experiment, Milgram's obedience experiments, Watson and Rayner's Little Albert experiment, and Asch's social pressure experiments.1 Furthermore, these classic studies have taken on an almost mythical status in psychology textbooks, and as with myths, the way some of these classic studies are told becomes distorted over time. Hence, Jarrett argued that the foundation as depicted in textbooks may sometimes be more sand than rock. Indeed, current introductory psychology textbook coverage of some of these classic studies has recently been shown to be misrepresented. For example, Griggs (2014a) showed this was the case for coverage of the Stanford Prison Experiment (also see Griggs & Whitehead, 2014, who showed that this was also true for introductory social psychology texts), and Griggs (2014c) found the coverage of the Little Albert experiment lacking in accuracy. The focus in the present study is on the accuracy of the coverage in current introductory psychology textbooks of another classic foundation study—Asch's social pressure experiments (Asch, 1951, 1952, 1955, 1956).²

Harris (1985) argued that Asch's experiments have become known as his "conformity" study even though there is no evidence in these experiments for a *general* tendency for participants to conform to the majority on the critical trials (i.e., trials on which the majority unanimously voiced an obviously incorrect answer). In fact, it is the case that only a minority of participants did so, and a stronger case can be made for Asch's findings indicating independent responding (Jetten & Hornsey,

2012). As Hodges and Geyer (2006) pointed out, "The experiments provide powerful evidence for people's tendency to tell the truth even when others do not" (p. 2). Most of the time, most of the participants responded independently (gave correct answers) on critical trials. For example, whereas 37\% of the responses on critical trials were conforming (incorrect), 63\% were independent (correct) responses (Asch, 1956). In addition, Asch reported that 25\% of the participants never conformed, and only 5% conformed on all critical trials. Thus, 5 times as many participants were consistently independent as were consistently conforming, and although 75\% of the participants conformed at least once, 95% of the participants gave independent responses at least once. Harris also observed that on critical trials, participants sometimes gave incorrect responses different from those of the majority, and if these nonconforming responses are deducted, the percentage of conforming responses gets even smaller (i.e., 33%). In sum, the participants in Asch's experiments truly tended to respond independently more often than in a conforming manner. However, as Harris pointed out, it was not the case that the participants were not affected by the situation that Asch created for them. Asch's postexperimental interviews with participants revealed that

Corresponding Author:

Richard A. Griggs, 4515 Breakwater Row West, Jacksonville, FL 32225, USA.

Email: rgriggs@ufl.edu

¹ University of Florida, Gainesville, FL, USA

those who responded independently were disturbed by the situation but that this did not necessarily translate into conforming responses. Even Asch himself stated that "The preponderance of estimates was, in each of the experimental groups, correct or independent of the majority, evidence that the given stimulus conditions—the facts that were being judged—were, under the circumstances, the most decisive" (Asch, 1956, p. 10).

In their 1990 article, "A puzzling misinterpretation of the Asch 'conformity' study," Friend, Rafferty, and Bramel pointed out that with respect to this study, "Asch equally, if not more, intended and interpreted it as demonstrating the powers of independence" (p. 29). Friend et al. maintained that when Asch's work first appeared, it was taken as evidence of the powers of independence in social life, but with the passing years, however, it has been misrepresented as a demonstration of conformity, reversing the central point of Asch's work. To discover how textbook authors had interpreted Asch's study and findings for the three decades following his experiments, Friend et al. analyzed the coverage of the Asch study in 99 social psychology textbooks published between 1953 and 1984, including multiple editions of some of the texts. In brief, they found that authors had increasingly over time distorted Asch's findings by accentuating the role of conformity and underestimating that of independence. For example, most of the textbooks provided the percentage of overall conforming responses on critical trials (37%) and never mentioned the larger percentage of overall independent responses (63%). Similarly, the textbooks also tended to mislead by mentioning the percentage of participants that yielded to the majority at least once (75%), without providing the larger percentage of participants that responded independently at least once (95%). Friend et al. concluded that the textbook authors had not put forth sufficient care in reading and drawing conclusions about Asch's quantitative results and generally neglected the postexperimental interview data that would have discouraged their one-sided misinterpretations of the quantitative results. Asch obviously found these qualitative data very informative, given that he devoted over a third of his 1956 monograph to them.

Given Friend et al.'s (1990) findings of distorted textbook coverage of the Asch experiments, the present study addressed the question of whether or not textbook authors have modified their coverage of these experiments during the past 25 years. In his classic book on teaching, McKeachie (2002) pointed out that "research on teaching suggests that the major influence on what students learn is not the teaching method but the textbook" (p. 14). Hence, because textbooks play a central role in our students' education and because introductory psychology is the most popular course in psychology with an estimated annual enrollment in the United States of 1.2-1.6 million students (Steuer & Ham, 2008) and may be the only psychology course taken by most of these students, we want our introductory textbooks to be as accurate as possible. According to Morawski (1992), textbooks are the key transmitters of psychological knowledge both to potential new members of the discipline and to those outside of the discipline (giving psychology away), and therefore, it is essential that textbook information be accurate. Thus, it is important to the psychological teaching community to identify inaccuracies in our introductory textbooks so that they can be corrected, and we as textbook authors and teachers do not continue to "give away" false information about our discipline. The present study took a step in this direction by examining coverage of the Asch social pressure experiments in 20 current introductory psychology textbooks. The results of this examination will tell us whether current introductory textbook authors provide more accurate coverage of Asch's findings or coverage that is even more firmly entrenched in stressing conformity than it was in the texts examined by Friend et al.

Method

The textbook sample included the current editions of 20 introductory psychology texts. The most recent copyright dates of 18 of these texts were 2012–2014, the current 3-year revision cycle for introductory textbooks at the time of this study. Two texts with a 2015 copyright date were included in the sample because they were already published and available in spring 2014, when the present study was conducted. Complete reference information for all 20 texts is given in the References section. Each reference is preceded by an asterisk.

To determine where the coverage of Asch's line-length judgment research was located within each text, the name index was checked for "Solomon Asch" and variants of this entry such as "S. Asch," and the subject index was also checked for relevant entries under "conformity," such as "Asch's study of conformity." If no index entry was found, then the chapter on social psychology was checked page by page for coverage in case there had been an indexing error. Once located, the nature of the coverage was assessed by first checking for the reporting of the percentage of overall (a) conforming responses and (b) independent responses. Second, the coverage was checked for the reporting of the percentage of participants that on critical trials (a) conformed at least once and (b) responded independently at least once. The coverage was also checked for any discussion of the qualitative data gathered from Asch's postexperimental interviews of the participants with respect to why they responded as they did in the experiment. The nature of such discussions was also checked to determine whether explanations of conformers or independent responders were included. Lastly, the citation of any articles critical of textbook coverage of the Asch experiments, such as Friend et al. (1990) or Harris (1985), was noted.

Results and Discussion

The coverage results for current introductory psychology textbooks are not only entirely consistent with those of Friend et al. (1990) but also indicate that the conformity interpretation of Asch's experiments has become more entrenched relative to Friend et al.'s earlier findings. First, 14 of the 20 textbooks Griggs 139

included the overall percentage of conforming responses (37%), but only one mentioned the much larger overall percentage of independent responses (63%). Even a larger number of the texts (16 of 20) included the finding that 75% of the participants conformed at least once, but not one text provided the larger percentage of participants (95%) that responded independently at least once. However, three of the texts did include the finding that 25% of the participants always responded independently (the flip side of the 75% of participants conforming at least once, which was also reported in these three texts). In sum, 4 of the 20 textbooks included only a singular finding about independent responses, whereas all 20 textbooks included at least one finding about conforming responses.

The present results indicate that textbook authors' tendency to emphasize findings involving conforming responses versus those involving independent responses has increased when compared to the findings of Friend et al. (1990). For example, Friend et al. found that the percentage of textbooks mentioning the existence of totally independent participants had decreased to just over 40\% for textbooks published in the time period, 1975–1984. The results of the present study show that this percentage for current introductory textbooks has decreased to only 15%. Similarly, whereas Friend et al. found that almost 57% of their textbook sample only mentioned the overall rate of conforming responses and not the overall rate of independent responses, 70\% of the present textbook sample did so. However, it should be noted that this percentage was approaching 70\% in the textbooks that Friend et al. sampled for the time period, 1975-1984.

With respect to citing studies critical of textbook coverage of the Asch experiments, only three texts did so. One text cited Friend et al. (1990) and Hodges and Geyer (2006) as support of the finding of more independent than conforming responding in Asch's experiments. This text was also the only text that provided the overall percentage of independent responses (63%). The other text citing Friend et al. did so in a paragraph that nicely integrated both the conformity and independence findings in the Asch experiments. One other text cited Hodges and Geyer but as support for an explanation of the behavior of participants who both conformed and responded independently. According to the explanation, their conforming responses were made to inform the group that they were not against them. Lastly, only one of the 20 textbooks discussed Asch's postexperimental interviews, and the focus of the discussion was on explaining conforming responses.

A Follow-Up Study

There is, however, a potentially important difference between the present study and the Friend et al. (1990) study. Introductory psychology textbooks were examined in the present study, but Friend et al. examined social psychology textbooks. Thus, I decided to conduct a follow-up study in which introductory social psychology textbooks were examined to determine whether the present findings were limited to introductory psychology textbooks or would also be found in current social psychology textbooks. The data for this follow-up study would also comprise a better contemporary comparison to Friend et al.'s earlier data compiled for social psychology textbooks.

As the textbook sample in the follow-up study, I used the sample of 10 introductory social psychology textbooks examined by Griggs and Whitehead (2014). As Griggs and Whitehead pointed out, these 10 textbooks essentially comprise the population of current introductory social psychology texts. The reference information for each of these textbooks is given in the references, and each reference is preceded by two asterisks. The methodology for examining coverage of Asch's experiments was the same as that used in the main study of introductory psychology textbooks.

The coverage results for current introductory social psychology textbooks mirrored those observed for introductory psychology textbooks and thus are also consistent with the findings of Friend et al. (1990). First, 9 (90%) of the 10 textbooks mentioned the overall percentage of conforming responses, but only 1 (10%) mentioned the larger overall percentage of independent responses. Fifty percent of the texts included the finding that 75\% of the participants conformed at least once, but not one text provided the finding that 95\% of the participants responded independently at least once.⁵ Lastly, 3 of the 10 texts included the finding that 25\% of the participants always responded independently. The data for introductory social textbooks are also consistent with Friend et al.'s (1990) finding of increasing emphasis on conformity and decreasing discussion of independence. The percentage of textbooks mentioning the overall percentage of conforming responses but not the overall percentage of independent responding has increased from 57% in Friend et al.'s overall text sample and nearly 70% in the text sample for the time period 1975-1984 to 89%in the present text sample.

In addition, as was the case for introductory psychology textbooks, there was little discussion of Asch's postexperimental interview data with respect to independent responding. Of the four texts that included any mention of these data, three included only sample explanations by conformers. The other text described sample explanations for both conformers and independents.

With respect to citing critical articles, only one textbook cited both Friend et al. (1990) and Hodges and Geyer (2006). These citations were not part of the main discussion of Asch's experiments but were presented later in the chapter in a section on minority influence. Two other textbooks cited Hodges and Geyer, which is critical of the conformist account of Asch's findings and offers an alternative nonconformist, values–pragmatics account of Asch's findings. However, the reference to this study in one text is quickly defused with an Asch quote about his concern regarding the conformity demonstrated in his studies. In the other text, the Hodges and Geyer is cited with reference to another conformity study by Berns et al. (2005) that examined neurobiological correlates of conformity and not to Asch's social pressure experiments.

Epilogue

The findings of the present study and the follow-up study clearly indicate that introductory psychology and social psychology textbook authors have continued to minimize the role of independence and exaggerate the power of conformity in their discussions of Asch's social pressure experiments even though independent responding was more prevalent in these experiments. In fact, current textbook coverage does this to a greater extent than that observed by Friend et al. (1990) for social psychology textbooks published between 1953 and 1985. This state of affairs is truly baffling because Asch (1955) concluded that "... the capacities for independence are not to be underestimated ... those who participated in this challenging experiment agreed nearly without exception that independence was preferable to conformity" (p. 34).

Jetten and Hornsey (2012; also see Jahoda, 1959, Jetten & Hornsey, 2011) speculated that resisting a majority that is clearly wrong seems to have been of little interest to most psychologists who have discussed Asch's work. They speculated that the reason for this bias is that social psychology in general seems to be more interested in what leads people to conform than in what leads them to dissent and show defiance in the face of group pressure. The textbook data found in the present study certainly supports this speculation. Jetten and Hornsey also asserted that this emphasis on conformity at the expense of independence in the Asch experiments is unfortunate because it has reduced efforts more generally to explain the process of dissent and how groups change as a result of this process.

Given that introductory and social textbook authors are now firmly entrenched in employing the findings of Asch's social pressure experiments as an integral part of the opening to their text chapter, section, or subsection on conformity, it appears that this state of affairs is not going to change. However, to maintain accuracy in our textbooks so that we are not giving away false information, it would seem incumbent upon these authors (and psychology teachers) minimally to modify their coverage (lectures) to add some discussion of Asch's findings on independence. Obviously space is a critical issue in textbooks, especially introductory textbooks. The recommended modification, however, would not require much space in that one or two paragraphs would seem sufficient for the additional coverage. A good example of such a paragraph can be found on p. 456 in Gerrig (2013). More importantly, this small modification would enhance a text's accuracy, which is the most important concern of both text authors and teachers. It would also, in Jarrett's (2008) terminology, make psychology's foundation in its textbooks more rock than sand.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

Notes

- 1. Perhaps these classic studies comprise the foundation for introductory textbooks because the text authors tend to write about psychology in terms of empirical studies and not facts. Smyth (2001a, 2001b, 2004) argued that a key feature of introductory psychology textbooks, unlike textbooks in the physical and biological sciences, is that instead of autonomous scientific facts, they present experiments and other evidence as the content that the beginner must learn, using experiments to demonstrate generalizations and referring extensively to the empirical literature. According to Smyth, psychology texts present very few taken-for-granted facts but attempt to impart scientific credence by presenting numerous experiments for factual claims. Psychological knowledge thus always carries evidence with it, making the possibility of disagreement ever present. Smyth (2001b) sums this point up succinctly by stating the psychology textbooks present "paradigms of doing, not of knowing" (p. 609).
- The most complete presentation of Asch's quantitative data for his social pressure experiments with a unanimous majority is given in Asch (1956). Asch (1951) reported what appear to be the results for 50 participants from Sample (Group) 1, Experiment 1, in Asch (1956). Asch's other two major publications discussing his social pressure experiments (Asch, 1952, 1955) contain no additional unanimous majority data. Table 3 (Asch, 1956, p. 10) provides a comprehensive summary of the unanimous majority findings by giving the distribution of errors from 0 to 12 for all three groups of participants in Asch's study. Friend, Rafferty, and Bramel (1990) reproduced Asch's table 3 but added an informative column providing the percentages of participants who made 0–12 errors. The size of the unanimous majority mainly varied from 7 to 9 but a few times it was 5 or 6 (Asch, 1956, p. 5). Asch (1951; also see Asch, 1955) reported that there was no significant impact on performance across this range of majority sizes.
- 3. It should be noted that there was slight variability in the exact percentages reported in the various textbooks for the findings that were examined. For example, the amount of overall conformity was sometimes given as 33% or 35% and not 37%. This variability had no impact on the textbook analysis because it was only concerned with the frequencies of the reporting of specific findings. Some of the variabilities in the reported percentages are due to reporting error and some to the source being cited. A good example of variability due to the source cited is a text that reported that no participant conformed on all of the trials. This text cited Asch (1951) in which it was the case that none of the 50 participants conformed on all 12 of the critical trials, whereas the result for the complete data set in Asch (1956) is that 5% of the participants conformed on all of the critical trials.
- Because Griggs and Whitehead (2014) did not include briefer versions of introductory social psychology textbooks, it is important to point out that Aronson (2012) is not a briefer version of Aronson, Wilson, and Akert (2013).
- 5. Two of the 10 textbooks reported that 50% of the participants conformed on at least half of the critical trials. One text had earlier cited Asch (1951) and the other text, Asch (1955). However, Asch (1951, p. 297) reported that only *a third* of the 50 participants

Griggs 141

conformed on at least half of the critical trials, and Asch (1955) did not directly address this point. This finding for the complete data set (N=123) in Asch (1956) is that 37% conformed on at least half of the critical trials. Thus, the claim that 50% of the participants conformed on at least half of the critical trials would appear to be a reporting error in these two texts. Another text, however, reported this finding correctly, but in a slightly different way. It reported that less than one third of the participants conformed on more than half of the critical trials. The percentage of participants conforming on any number of trials (from 0 to 12) in Asch (1956) can easily be computed from the frequency distribution of errors given in Table 1 in Friend, Rafferty, and Bramel (1990, p. 33).

References

- *Indicates an introductory psychology textbook examined in the main study.
- **Indicates an introductory social psychology textbook examined in the follow-up study.
- **Aronson, E. (2012). *The social animal* (11th ed.). New York, NY: Worth
- **Aronson, E., Wilson, T. D., & Akert, R. M. (2013). *Social psychology* (8th ed.). Boston, MA: Pearson.
- Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgment. In H. Guetzkow (Ed.), *Groups*, leadership and men (pp. 177–190). Pittsburgh, PA: Carnegie Press.
- Asch, S. E. (1952). *Social psychology*. Englewood Cliffs, NJ: Prentice Hall
- Asch, S. E. (1955). Opinions and social pressure. *Scientific American*, 193, 31–35.
- Asch, S. E. (1956). Studies of independence and conformity: 1. A minority of one against a unanimous majority. *Psychological Monographs*, 70, (Whole No. 416).
- **Baron, R. A., Branscombe, N. R., & Byrne, D. (2012). *Social psychology* (13th ed.). Boston, MA: Pearson.
- **Baumeister, R. F., & Bushman, B. J. (2014). Social psychology and human nature (3rd ed.). Belmont, CA: Wadsworth.
- Berns, G. S., Chappelow, J., Zink, C. F., Pagnoni, G., Martin-Skurski, M. E., & Richards, J. (2005). Neurobiological correlates of social conformity and independence during mental rotation. *Biological Psychiatry*, 58, 245–253.
- *Cacioppo, J. T., & Freberg, L. A. (2012). *Discovering psychology:* The science of mind. Belmont, CA: Wadsworth.
- *Carpenter, S., & Huffman, K. (2013). *Visualizing psychology* (3rd ed.). New York, NY: Wiley.
- *Carter, K., & Seifert, C. M. (2013). Learn psychology. Burlington, MA: Jones & Bartlett Learning.
- *Ciccarelli, S. K., & White, J. N. (2015). *Psychology* (4th ed.). Upper Saddle River, NJ: Prentice Hall.
- *Comer, R., & Gould, E. (2012). *Psychology around us* (2nd ed.). New York, NY: Wiley.
- *Feist, G. J., & Rosenberg, E. L. (2012). *Psychology: Perspectives and connections* (2nd ed.). New York, NY: McGraw-Hill.
- **Franzoi, S. (2013). *Social psychology* (6th ed.). Redding, CA: BVT Publishing.

Friend, R., Rafferty, Y., & Bramel, D. (1990). A puzzling misinterpretation of the Asch 'conformity' study. *European Journal of Social Psychology*, 20, 29–44.

- *Gerrig, R. J. (2013). *Psychology and life* (20th ed.). Boston, MA: Pearson.
- **Gilovich, T., Keltner, D., Chen, S., & Nisbett, R. E. (2013). Social psychology (3rd ed.). New York, NY: Norton.
- *Gray, P., & Bjorkland, D. F. (2014). *Psychology* (7th ed.). New York, NY: Worth.
- Griggs, R. A. (2014a). Coverage of the Stanford prison experiment in introductory psychology textbooks. *Teaching of Psychology*, 41, 195–203.
- *Griggs, R. A. (2014b). *Psychology: A concise introduction*. New York, NY: Worth
- Griggs, R. A. (2014c). The continuing saga of Little Albert in introductory psychology textbooks. *Teaching of Psychology*, 41, 309–317.
- Griggs, R. A., & Whitehead, G. I., III. (2014). Coverage of the Stanford Prison Experiment in introductory social psychology textbooks. *Teaching of Psychology*, 41, 318–324.
- *Grison, S., Heatherton, T., & Gazzaniga, M. (2015). *Psychology in your life*. New York, NY: Norton.
- Harris, P. R. (1985). Asch's data and the 'Asch effect': A critical note. *British Journal of Social Psychology 24*, 229–230.
- *Hockenbury, D. H., & Hockenbury, S. E. (2013). *Psychology* (6th ed.). New York, NY: Worth.
- Hodges, B. H., & Geyer, A. L. (2006). A nonconformist account of the Asch experiments. *Personality and Social Psychology Review*, 10, 2–19
- Jahoda, M. (1959). Conformity and independence. *Human Relations*, 12, 99–120.
- Jarrett, C. (2008). Foundations of sand? The Psychologist, 21, 756–759.Jetten, J., & Hornsey, M. J. (Eds.). (2011). Rebels in groups: Dissent, deviance, difference and defiance. Chichester, England: Wiley-Blackwell.
- Jetten, J., & Hornsey, M. J. (2012). Conformity: Revisiting Asch's line-judgment studies. In J. R. Smith & S. A. Haslam (Eds.), *Social* psychology: Revisiting the classic studies (pp. 76–90). Thousand Oaks, CA: Sage.
- **Kassin, D. T., Fein, S., & Markus, H. R. (2013). *Social psychology* (9th ed.). Belmont, CA: Wadsworth.
- **Kenrick, D. T., Neuberg, S. L., & Cialdini, R. B. (2010). *Social psychology: Goals in interaction* (5th ed.). Boston, MA: Pearson.
- *King, L. A. (2014). The science of psychology: An appreciative view (3rd ed.). New York, NY: McGraw-Hill.
- *Krause, M., & Corts, D. (2012). *Psychological science: Modeling scientific literacy*. Upper Saddle River, NJ: Prentice Hall.
- *Krull, D. S. (2013). *Introduction to psychology*. Charlotte, NC: Kona Publishing.
- *Licht, D. M., Hull, M. G., & Ballantyne, C. (2014). *Psychology*. New York, NY: Worth.
- *Lilienfeld, S. O., Lynn, S. J., Namy, L. L., & Woolf, N. J. (2014). *Psychology: From inquiry to understanding* (3rd ed.). Boston, MA: Pearson.
- McKeachie, W. J. (2002). *Teaching tips: Strategies, research, and theory for college and university teachers* (11th ed.). Boston, MA: Houghton Mifflin.

- Morawski, J. G. (1992). There is more to our history of giving: The place of introductory psychology textbooks in American psychology. *American Psychologist*, 47, 161–169.
- *Myers, D. G. (2013). Psychology (10th ed.). New York, NY: Worth.
- **Myers, D. G. (2012). *Social psychology* (11th ed.). New York, NY: McGraw-Hill.
- *Nevid, J. S. (2013). *Psychology: Concepts and applications* (4th ed.). Belmont, CA: Wadsworth.
- *Pastorino, E. E., & Doyle-Portillo, S. M. (2012). What is psychology? (3rd ed.). Belmont, CA: Wadsworth.
- *Rathus, S. A. (2012). *Psychology: Concepts and connections* (10th ed.). Belmont, CA: Wadsworth.
- **Sanderson, C. A. (2010). Social psychology. Hoboken, NJ: Wiley.

- *Schacter, D. L., Gilbert, D. T., & Wegner, D. M. (2014). *Psychology* (3rd ed.). New York, NY: Worth.
- Smyth, M. M. (2001a). Certainty and uncertainty sciences: Marking the boundaries of psychology in introductory textbooks. *Social Studies of Sciences*, 11, 389–416.
- Smyth, M. M. (2001b). Fact making in psychology: The voice of the introductory textbook. *Theory & Psychology*, 11, 609–636.
- Smyth, M. M. (2004). Exploring psychology's low epistemological profile in psychology's textbooks: Are stress and stress disorders made within disciplinary boundaries? *Theory & Psychology*, *14*, 527–543.
- Steuer, F. B., & Ham, K. W., II. (2008). Psychology textbooks: Examining their accuracy. *Teaching of Psychology*, *35*, 160–168.