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Enhancing Scholarly Creativity When Developing Research Ideas

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Abstract

This study details how 17 introductory psychology and sociology research methods textbooks suggest students develop research ideas. It compares this advice with how social psychologist Stanley Milgram creatively invented five research projects. Of the textbooks that offered advice on idea creation techniques (n = 13), most recommendations conflicted with Milgram's most relied upon inventive approach. The textbooks promoted a range of inventive techniques, many of which encouraged students to undertake, in their initial area of interest, a review of the previous literature. Milgram's favored inventive approach differed: often with students, in one sitting he envisioned, developed, and honed research ideas and then scoped out the potential study's entire methodological design. At best, Milgram's review of the previous literature came after having settled on a methodological approach. In doing so, he broke a common textbook golden rule: before deciding on the methodological design, the previous literature must be reviewed. The textbooks often warned against the inventive approach Milgram deployed, describing it as imprudent: the idea developed may already have been completed. This valid criticism, however, fails to consider a potential advantage associated with Milgram's unconventional approach: his ignorance of the previous literature ensured his creative lens remained unadulterated by the powerful influence of what had been done before. It is concluded Milgram's unconventional approach to idea creation may, at least in part, explain why he was so creative. This paper concludes with a compromise position: researchers should be exposed to the strengths and weaknesses associated with both the most common textbook approaches to idea generation and that of creative high-impact scholars like Milgram.

Keywords

Scholarly Creativity, Methodology, Stanley Milgram, Research Ideas, Textbooks, Idea Generation, Literature Review, Psychology, Sociology

1. Introduction

All scholarly research projects—from an undergraduate proposal to a fully funded academic research study—are preceded by a rough idea: a question in a general area of interest. However, generating a strong research idea—one that is viable, original, intriguing, and thus potentially high-impact—is widely considered difficult (Lune & Berg, 2017: pp. 22, 24-25). Doing so is likely the most difficult task a scholar will encounter across the research process. For this reason, experienced scholars are grateful if they have one strong idea during their career, as psychologist Bruce Alexander was for his pioneering *Rat Park* experiment: "I've had only one good idea in my life [...] And that was it. But...who can complain about that?" (Cited in Slater, 2004: p. 170).

On the general topic of producing research ideas, this exploratory article determines how elementary research methodology textbooks suggest budding psychology and sociology students develop research ideas and, in some detail, compares this advice with the inventive approaches utilized by a single exemplar case study. The present study's case study—American social psychologist Stanley Milgram—was selected because of his ability to generate many research ideas, some of which, well beyond the parameters of social psychology, are considered captivating, innovative, unique, and even ground-breaking. Milgram (1963, 1974) is most (in)famously remembered as the inventor of the *Obedience to Authority* electric shock studies, which one scathing critic conceded were "devilishly ingenious, cleverly thought out, and—whatever one thinks of them—extremely provocative and probably important." (Marcus, 1974: p. 2). To date, this simultaneously unethical yet intriguing research is, because of both descriptors, one of the most widely cited studies in the social sciences (Miller, 1986: p. 1; Russell, 2018: p. 5). Although Milgram is, as the ethics chapter in many a methodology textbook notes, the poster boy for how *not* to do research (!), for several reasons, his selection as the exemplar case study requires justification. Firstly, Milgram's culpability for having undertaken what many believe to be an unethical study (Perry, 2013), offers no logical rationale for eschewing an analysis of his wider creative talents. Secondly, and related to this first point, Milgram, who is widely recognized for his "methodological ingenuity" (Sheehy, 2004: p. 174), was no social science one-hit wonder. For example, Herbert Kelman (cited in Blass, 2004: 61) described Milgram's PhD thesis as having "great potential significance." Noel Sheehy (2004: p. 176) adds that Milgram's mental maps research "anticipated the emergence of the environmental psychology of the built environment" research area. Blass (2004: pp. xxiii-xxiv) described Milgram's "familiar stranger" study as "uncharted territory..." Milgram's lost-letter research produced a methodological technique that "has been—and remains—the most widely used indirect, unobtrusive measure of attitude and opinion." (Blass, 2004: p. 283). And, although Milgram did not invent Ithiel de Sola Pool's originally titled *Small World Question*—which wondered how many acquaintance links exist between any two arbitrarily chosen strangers—Milgram first devised a study that answered it. According to Milgram (2010, 1967: p. 329), "...only 5.5 intermediaries will—on the average—suffice"; a discovery that proved so influential that it helped inspire the field's now more widely recognized name

of *Six Degrees of Separation* (Levine, 2004: p. 368). According to Charles Kadushin, a specialist in this research area, Milgram's technique became "one of the critical tools of networking analysis..." (Cited in Blass, 2004: pp. 284-285).

Also, Milgram's colleagues frequently noted his creative flair. Milgram's research assistant (who later became a professor) Judith Waters described him as "a salt machine of ideas." (Cited in Blass, 2004: p. 33). Professor Harold Takooshian (2000: p. 12), whose PhD thesis was supervised by Milgram, believed his mentor had "no peer as an inventive researcher..." *Psychology Today* titled their article on Milgram "A MAN OF 1,000 IDEAS" (Tavris, 1974a: p. 74). Intriguingly, Milgram did not describe generating innovative research ideas as difficult but "pleasurable..." (2010 [1977]: xix). It is therefore suspected that shedding new light on why and how Milgram was so creative could prove useful to all researchers, new and old. And although Milgram was, as a scholar, far from perfect—he struggled to generate theory, never stimulated a "theoretical 'school'" of thinking, and during the *Obedience Studies* let curiosity dominate over ethics (Blass, 2004: p. 291; Takooshian, 2000: p. 11)—his raw creative flair remains undisputed. It is on these grounds that Milgram was selected as the singular exemplar case study.[1]

This study answers two questions: firstly, in the cognate social science disciplines of psychology and sociology, how do introductory research methodology textbooks suggest students develop research ideas? Secondly, how do these textbook suggestions compare to Milgram's approaches to idea generation?

Based on a sample of textbooks used in introductory methods courses at 15 high-profile Canadian psychology and sociology departments, Section 2 of this project details how this literature suggests students develop research ideas. Section 3 of this project analyzes previously unpublished archival[2] and biographical secondary literature to determine how Milgram generated five research ideas, comparing his approaches with the textbook literature.

2. Textbook Selection and Analysis

This study analyzed 17 textbooks used in introductory psychology and sociology research methodology courses offered by the 15 leading Canadian research-intensive universities ("U15")[3] during the 2022/2023 academic year. So how were these

[1]Because the present research centres around a singular case study, it is limited in terms of generalization. That said, at several points, this study notes that other high-profile scholars appear to have utilized what we argue was Milgram's favourite technique of creativity.

[2]The first author spent 10 weeks across two visits collecting documents from Milgram's personal archive (Stanley Milgram Papers: Manuscript Group Number 1406), held at Yale University's Sterling Memorial Library.

[3]"U15 Canada is an association of fifteen leading [...] research-intensive universities that came together in 2012...dedicated to helping advance research and innovation policies and programs for the benefit of all Canadians." https://u15.ca/about-us/ (Retrieved February 6, 2024). These universities are listed in Appendix 2. This study selected the U15 universities as its sample base because doing so provided the balance of a manageable sample size that included a range of universities spread across all of Canada. The results are likely to have some applicability across North America because this sample included textbooks that, in origin, are both American (mostly) and Canadian. Technically, the generalization of the results from this study are limited to the cognate disciplines of psychology and sociology, although it may have wider disciplinary applicability because Milgram occasionally published research that reached beyond their parameters.

17 textbooks selected? Textbook selection was typically as follows. The course offerings at each of the U15 university psychology and sociology departments was, through internet searches, accessed and their *single most introductory research methodology course* offered in the Winter 2023 (preferably) or Fall 2022 semester was identified. Such courses were defined as those with, relative to other methodology courses on offer, the most elementary title—for example, "Introduction to Research Methods"—accompanied by having the most rudimentary on-line course overview. Then, through a second internet search, the course syllabi for each of these courses was obtained and the textbook used in that course identified. The reference for each textbook assigned to these courses entered the sample.

After overcoming a few minor obstacles with the above textbook reference collection process,[4] the sample consisted of 17 different methodology primers. It is suspected that this textbook data collection process provided for a representative sample of recently utilized introductory psychology (n = 9) and sociology (n = 8) methodology textbooks used across the U15 group of universities (see Appendix 1 for more details). The sample consisted of three main types of textbooks: *Introductory Quantitative and Qualitative Methods* (n = 12), *Introductory Quantitative Methods* (n = 4), and *Introductory Qualitative Methods* (n = 1) (see Appendix 2).

Next, physical or electronic copies of each textbook were acquired, and all potentially relevant data was manually identified. More specifically, this data identification process was initiated by the second then, later, the first author independently reviewing each textbook's table of contents, with both authors extracting then storing any sections that generally discussed the topic of idea generation. Then, for each textbook, the second then first author independently undertook a brief page-by-page inspection whereby all loosely relevant materials on the topic of idea generation were extracted and stored.[5] If no such materials were found, the textbook was categorized as containing no relevant information on the topic of idea generation (see Appendix 3).[6] The stored data was then, through content

[4]The main obstacles to this textbook collection process included, *firstly*, that two methodology courses within the sample did not utilize a textbook (typically using some other non-textbook material); thereby instigating their exclusion from the sample. *Secondly*, many course outlines were not publicly available. So, by way of email and/or phone calls, course administrators from the respective departments were contacted and requests for this information were made. On receiving this information, the textbook/s in these course outlines entered our sample. Only one department failed to respond to the multiple requests for a course outline and thus had to be excluded from the sample. See the footnotes attached to Appendix 2 for a few other minor methodological issues.

[5]The exception to this data collection process was that two of the 17 textbooks were written in French and only the second author could translate all relevant data into English.

[6]One obvious limitation with this textbook review process was that it remains possible that both authors missed identifying potentially relevant data, although two independent sweeps of the textbook materials were purposefully designed to reduce the risk of this possibility. A Cohen's kappa test was performed to determine the level of inter-rater reliability between the second and first authors when identifying potentially relevant sections of data. The results of this test ($\kappa = 0.920$, $p < 0.001$.) indicate that there was a very good agreement between the two reviewers. In other words, inter-rater reliability between the two authors when identifying generally relevant material was high. For more detail on the kappa test, see Appendix 4.

analysis, perused several times by the first author until, relying on latent coding, distinctive categories for textbook suggestions on how to develop research ideas emerged.

Results of Content Analysis

Content analysis revealed that 76.5% (13 out of 17) of the textbooks provided suggestions on how to devise an idea for a research project. Conversely, 23.5% of the textbooks provided no such information, which is substantial considering that students find developing a technically viable research idea—let alone one that is original, intriguing, and thus potentially high-impact—"the most difficult" task during the research process (Wilkinson, Bouma, & Carland, 2019: p. 34). Even in the 13 textbooks that provided insights on inventing a research idea, this information was—with several exceptions[7]—typically scant (frequently amounting to less than, across the textbook, one page of information).

It is notable that three of the four textbooks making up the 23.5% figure were *'Introductory Quantitative Methods'* textbooks (see Appendix 2 and 3). Because the focal concern of these purely 'stats'-type textbooks logically succeed that of 'idea generation'—arguably their concern is with presenting or manipulating and *not producing* a data set—it could be argued their inclusion in the sample unfairly inflated the 23.5% figure. To this, two points can be made. Firstly, this argument did not stop one of the four 'stats' textbooks from discussing the topic of idea formation (see Fox & Imbeau, 1999: p. 24). Secondly, even if one argues the topic of idea formation is beyond the purview of quantitative textbooks, such primers are, as Appendix 2 illustrates, occasionally the most elementary research methods course offered. And if this is the last methods-type course a student undertakes, they are therefore unlikely to receive any instruction on the particularly difficult topic of idea formation.

Of the 13 (n = 17) textbooks that provided information on research idea development, what follows are the first author's categorization of the top 10 suggestions (in order of most to least frequent):

1. Nine textbooks (out of 13; 69.2%) suggested developing an idea for a research project by identifying then drawing on personal everyday life experiences and/or observations and/or applied problems (Smith & Davis, 2013: p. 16; Cozby et al., 2020: p. 19; Goodwin & Goodwin, 2017: p. 69; Lune & Berg, 2017: pp. 24-25; Jhangiani, Chiang, Cuttler, & Leighton, 2019: pp. 59, 66; Price, Jhangiani, & Chiang, 2015: pp. 31, 32; Vallerand & Hess, 2000: p. 11; Fox & Imbeau, 1999: p. 24; Wilkinson et al., 2019: pp. 13, 26).[8]
2. Eight textbooks (out of 13; 61.5%) suggested *reviewing the previous litera-*

[7]See Cozby, Mar, and Rawn (2020: pp. 18-23); Lune and Berg (2017: pp. 22-26); Smith and Davis (2013: pp. 4-5, 14, 16-19). See also Appendix 3.

[8]Goodwin and Goodwin (2017: p. 84) and Smith and Davis (2013: p. 16) provide this suggestion, but they also assert a researcher will already have gained a command of the previous research.

ture in a general area of interest with the intention of identifying then focusing on observed gaps in the knowledge base (Carr, Boyle, Cornwell, Correll, Crosnoe, Freese, & Waters, 2021: pp. 56-57, 58; Smith & Davis, 2013: pp. 4, 14, 18; Lune & Berg, 2017: p. 26; Babbie, Edgerton & Roberts, 2020: pp. 461-462; Jhangiani et al., 2019: p. 69; Price et al., 2015: pp. 33, 35; Bell, Bryman, & Kleinknecht, 2022: p. 75; Wilkinson et al., 2019: p. 35).

3. Eight textbooks (out of 13; 61.5%) suggested reviewing, in a general area of interest, public debates—controversial issues in the media relating to policies or certain events—and, in light of those debates, develop an idea for a research project (Carr et al., 2021: p. 56; Cozby et al., 2020: p. 20; Goodwin & Goodwin, 2017: p. 69[9]; Lune & Berg, 2017: p. 24; Jhangiani et al., 2019: p. 66; Price et al., 2015: p. 31; Fox & Imbeau, 1999: p. 24; Wilkinson et al., 2019: p. 34).
4. Seven textbooks (out of 13; 53.9%) suggested *reviewing the previous literature* in a general area of interest and then adopting the authors' suggestions for potential future research (Symbaluk, 2019: p. 48; Carr et al., 2021: p. 56; Smith & Davis, 2013: p. 14; Cozby et al., 2020: p. 22; Jhangiani et al., 2019: p. 69; Price et al., 2015: p. 33; Vallerand & Hess, 2000: p. 11).
5. Four textbooks (out of 13; 30.8%) suggested *reviewing the previous literature* in a general area of interest with the intention of identifying then testing the validity of a particular theory (Cozby et al., 2020: p. 20; Smith & Davis, 2013: p. 6; Goodwin & Goodwin, 2017: pp. 68, 70-74; Vallerand & Hess, 2000: pp. 15, 16).
6. Four textbooks (out of 13; 30.8%) suggested *reviewing the previous literature* in a general area of interest and identifying then capitalizing on contradictory findings and/or unexpected results and/or highlighted limitations. Then one should contemplate how to test and thus potentially resolve all such issues (Bell et al., 2022: p. 75; Smith & Davis, 2013: p. 18; Cozby et al., 2020: p. 22; Babbie et al., 2020: pp. 461-462).
7. Three textbooks (out of 13; 23.1%) suggested that when pursuing research, one should remain open to serendipitous discoveries. This is because unanticipated findings that emerge during the research process can generate more exciting and/or intriguing, and/or interesting results than one is likely to obtain from the initial research project (Smith & Davis, 2013: p. 16; Cozby et al., 2020: p. 19; Goodwin & Goodwin, 2017: p. 69).
8. Two textbooks (out of 13; 15.4%) suggested developing an awareness of numerous different areas of knowledge—having a strong general overview of disparate research disciplines, topics, and debates—which may allow one to creatively contemplate the application of one area of knowledge to a completely different area of knowledge. Basically, this technique involves combining aspects of two discrete fields of research (Cozby et al., 2020: p. 22; Fox & Imbeau, 1999: p. 24).

[9]Again, Goodwin and Goodwin (2017: 84) make this suggestion in the context of the researcher having already gained a command of the previous research.

9. Two textbooks (out of 13; 15.4%) suggested *reviewing the previous literature* in a general area of interest with the intention of identifying a study in need of replication and then replicating that study (Smith & Davis, 2013: p. 18; Babbie et al., 2020: pp. 461-462).
10. One textbook (out of 13; 7.7%) suggested *reviewing the previous literature* in a general area of interest by consulting a university course's lecture and reading materials, then generating a research idea from them (Smith & Davis, 2013: pp. 16, 18).[10]

Of these top 10 suggestions on developing research ideas, six (60%) are associated with the researcher undertaking a review of the previous literature (see 2, 4, 5, 6, 9, 10 above). Further highlighting the significance of this observation is that these 10 suggestions consist of 48 references, 26 of which (54.2%) are associated with the researcher undertaking a review of the previous literature. Although the textbooks frequently suggested researchers undertake this literature review *early* in the research process, it was unclear when exactly it should be undertaken. On this ambiguous issue of timing, what can more confidently be asserted is that of the 13 textbooks that provided suggestions on idea development, 11 (or 84.6%) recommended researchers undertake their review of the previous literature before deciding on their study's methodological approach (see Appendix 3). In fact, the advice that an early review of previous literature be undertaken was mentioned so frequently that it likely merits the labelling of a textbook *golden research rule*. Bolstering this claim, textbooks often described undertaking an early review of the previous literature as a "crucial first step" (Wilkinson et al., 2019: p. 35), "important" (Jhangiani et al., 2019: p. 69), and even "essential" (Symbaluk, 2019: p. 48; see also Smith & Davis, 2013: p. 5; Cozby et al., 2020: p. 72). And, according to Smith and Davis (2013: p. 16), the reason "[g]ood researchers" should undertake an early literature review is that "[w]e do not seem to generate meaningful research ideas in areas with which we are not familiar."

In summary, it is fair to conclude that of all the textbooks in the sample that discussed the topic of idea formation, nearly all (11 out of 13; 84.6%) recommended students undertake a review of the previous literature before deciding on their study's methodological approach. And to bolster the prudence of this advice, 10 of these textbooks also mentioned nine advantages associated with doing so (benefits that were additional to literature reviews being an excellent provider of research ideas). These nine additional advantages associated with a researcher undertaking a review of the previous literature before the research design stage were (in order of most to least frequent) that the researcher:

1. ...would become aware of what studies had already been undertaken, thereby protecting themselves from pursuing a research idea already completed by someone else (Bell et al., 2022: p. 75; Carr et al., 2021: pp. 56-57; Smith & Davis, 2013: pp. 5, 21; Cozby et al., 2020: p. 28; Babbie et al., 2020:

[10]For the seven least frequently mentioned suggestions on research idea development, see Appendix 5.

pp. 461-462; Jhangiani et al., 2019: p. 69, Price et al., 2015: p. 38; Wilkinson et al., 2019: p. 35). *[Eight textbooks (out of 13; 61.5%)].*

2. ...would increase and deepen their understanding of the subject matter and/or key debates (Bell et al., 2022: p. 75; Symbaluk, 2019: p. 48; Lune & Berg, 2017: p. 26; Carr et al., 2021: p. 56; Smith & Davis, 2013: pp. 4, 16, 18; Wilkinson et al., 2019: pp. 35, 286). *[Six textbooks (out of 13; 46.2%)].*
3. ...would provide them with information on how a topic is, in terms of methodology, usually studied (Carr et al., 2021: p. 56; Babbie et al., 2020: pp. 461-462; Price et al., 2015: pp. 38, 43; Bell et al., 2022: p. 25; Wilkinson et al., 2019: pp. 16, 35, 286). *[Five textbooks (out of 13; 38.5%)].*
4. ...be able to utilize other authors' definitions for important concepts and/or their identification of key variables (Symbaluk, 2019: p. 48; Carr et al., 2021: p. 58; Smith & Davis, 2013: p. 16; Jhangiani et al., 2019: p. 69; Wilkinson et al., 2019: pp. 13, 35). *[Five textbooks (out of 13; 38.5%)].*
5. ...could use these contributions to help refine their initial inchoate research idea (Symbaluk, 2019: p. 47; Lune & Berg, 2017: p. 26; Price et al., 2015: pp. 38, 43; Wilkinson et al., 2019: pp. 23-24, 35, 40). *[Four textbooks (out of 13; 30.8%)].*
6. ...learn about the hidden obstacles, impediments, traps, and/or rookie mistakes experienced by other researchers (Carr et al., 2021: p. 56; Smith & Davis, 2013: p. 21; Wilkinson et al., 2019: pp. 35, 40). *[Three textbooks (out of 13; 23.1%)].*
7. ...would discover how their intended project fitted into the wider literature (Jhangiani et al., 2019: p. 69; Price et al., 2015: pp. 38, 43; Wilkinson et al., 2019: pp. 13, 15). *[Three textbooks (out of 13; 23.1%)].*
8. ...would be provided with a solid foundation on which to build their own research (Price et al., 2015: p. 43; Wilkinson et al., 2019: pp. 13, 35-36). *[Two textbooks (out of 13; 15.4%)].*
9. ...would gain insights into the potential interestingness of their intended project (Jhangiani et al., 2019: p. 69; Price et al., 2015: p. 38). *[Two textbooks (out of 13; 15.4%)].*

Few, on the face of it, would question the prudence of the textbooks' common advice that to help with idea generation (and reap numerous other advantages), students should, before settling on their research methodology, undertake a review of the previous literature. For many of the reasons mentioned above, such advice makes good sense. However, it is intriguing that after Milgram left graduate school, his most creative and influential research publications were not founded on an early reading of the previous specialist literature. In fact, he occasionally failed to engage with this literature at all.

3. Milgram's Approaches to Idea Development

Milgram's approaches to idea development can be split across two main timeframes: his (3.1) *Graduate Phase* (the time spent at Harvard University as a PhD student; 1954-1960) and (3.2) *Teaching Phase* (the period after gaining his first teaching po-

sition where he was regularly in the company of students at Yale University, Harvard University, and City University of New York (CUNY); 1961-1984). Below, greater detail will be paid to (1) over (2) because during the former period Milgram relied on several inventive approaches mentioned in the above textbook literature. But, as we shall see, during the latter and much longer period Milgram repeatedly relied on a singular, simple, and somewhat unique technique.

3.1. Graduate Phase (1954-1960)

Across the *Graduate Phase*, Milgram conceived of two major research projects: his (3.1.1) *Cross-National Conformity Study* (Milgram, 1961) and (3.1.2) the *Obedience Studies* (Milgram, 1963). What follows delves into the origin and invention of both research ideas.

3.1.1. Cross Cultural Comparison of Conformity among French and Norwegian Nationals

During his first two years in Harvard's *Department of Social Relations* PhD program, Milgram showed an interest in two disparate research fields. The first field was national stereotypes: people from the same nation can exhibit similar personality or character traits, whereby, for example, "Italians are said to be 'volatile,' Germans 'hard-working,' the Dutch 'clean,' the Swiss 'neat,' the English 'reserved,' and so on." (Milgram, 1961: p. 45). Obviously, such stereotypes, when derogatory, were founded on discrimination and, where neutral or positive, they could be self-serving. The question that intrigued Milgram (1961: p. 45) was, using scientific techniques, "...can one...show national differences in 'character' or 'personality'?"

On Milgram reading a hundred or so articles and books on national characteristics and stereotypes (Blass, 2004: p. 31), he concluded most of the literature was speculative:

> ...the skeptical student must always come back to the question: "How do I know that what is said about a foreign group is true?" [... A]nd in the absence of objective evidence it is not easy to distinguish between fact and fiction. [... T]here is very little evidence to make a case for national differences. It is not that such differences are to be denied out of hand; it is just that we lack sufficient reliable information to make a clear judgment. (Milgram, 1961: p. 45).

The second research field Milgram showed interest in was Solomon Asch's (1956) *Group Conformity* experiment. This experiment involved an instructor who informed seven participants seated in a line that they were to assess which of three unequal lines presented before them matched that of a separately presented line (with the correct answer being obvious). Each participant was, sequentially from left to right, to express their assessment to the group. However, not all was as it appeared: all except the sixth participant were actors. Initially, the 'participants' provided the correct answer. By the third trial (and randomly thereafter), the actors gave the same clearly incorrect answer. Asch was assessing if the actors' incorrect answers had a conforming influence on the actual participant. One third of participants run through this experiment conformed with the group, suggesting

they knowingly provided incorrect answers. Asch increased his confidence that the participants' provision of incorrect answers was due to the group's influence by presenting the line assessment task to different individual participants in the absence of the group. This control experiment revealed that 99 percent of lone participants could identify the correct answer to the task.

During the 1955/56 academic year, Asch was invited to Harvard as a visiting scholar and Milgram became his teaching assistant (Blass, 2004: pp. 27-31). Drawing on both above research fields, Milgram then conceived of an idea for his PhD thesis: undertake a methodological adaptation of Asch's conformity experiment on samples of people from different countries. In September 1956 he hypothesized "Now interms [*sic*] of...things I have read and seen, I would predict as follows: Conformity, as measured by the mean differences of pressured responses will be G[ermans] > E[nglish] > F[rench]" (cited Russell, 2018: p. 42). What Milgram had "read and seen" is intriguing: he was probably referring to the post-World War Two stereotype that Germans were highly conformist, as evidenced by their perpetration of the Holocaust. Although Milgram spoke French fluently, he could not speak German, thereafter deciding to undertake his cross-cultural conformity experiment in France and Norway (the latter of whom widely spoke English).

Milgram's adaptation on Asch's experiment—undertaken in both Oslo and Paris—was as follows. The participant entered the laboratory and encountered a coat rack piled with jackets and a row of seemingly occupied closed booths, the sixth of which they were instructed to enter. After putting on earphones, all participants were informed they were to assess three different acoustic tones and then match one of them with a separately presented acoustic tone (with the correct answer being obvious). Each participant was to express their assessment to the group, starting with the participant in the first then subsequent booths. Again, all was not as it seemed: the first five booths were empty and the responses coming from them were pre-recorded by actors on audiotape. Like Asch's experiment, initially the other 'participants' sequentially provided the correct answer, but eventually all randomly started providing the same clearly incorrect answer.

Milgram's results revealed that on average the Norwegians and French participants conformed 62 and 50 percent of the time respectively, a statistically significant difference. Furthermore, Milgram undertook five subtle variations of this basic procedure and although across all five experimental variations the degree of conformity differed, the *direction* of these differences—Norwegians conforming more than the French—remained consistent (Milgram, 1961).

In two ways, Milgram's adaptation was scientifically more rigorous than Asch's experiment. First, unlike Asch's prototype, the actors' taped responses were uniform and thus scientifically standardized. Second, in most of the variations, Milgram informed his participants that their responses would contribute to the improvement of air traffic safety signals, thus investing their performance with potentially "life and death" consequences (Milgram, 1961: p. 48). This overcame a significant limitation with Asch's 'classic' experiment: his conforming participants likely experienced little compunction in siding with the group because doing

so was ultimately harmless. However, the most innovative aspect of Milgram's adaptation was undertaking his experiment on people from different countries. And on this note, the results were unanimous: Norwegians were, on average, significantly more conformist than the French.

Beyond inventing a more standardized, consequential, and thus methodologically more robust procedural adaptation of Asch's classic experiment, Milgram's study singlehandedly transformed "the topic of national characteristics from armchair speculation to an object of scientific inquiry." (Blass, 2004: p. 53). This creative and scientifically rigorous study saw both Harvard and Yale Universities offer Milgram tenure track Assistant Professor positions, with him accepting the latter's offer. But before starting at Yale, Milgram largely conceived of the research project for which he is now remembered.

3.1.2. The Obedience Studies

Milgram was Jewish, and as indicated in his cross-cultural conformity study—research designed with Germans in mind—he was both perturbed and intellectually intrigued by the Nazis' perpetration of the Holocaust. This interest became more explicit with the *Obedience Studies*. Two main factors shaped the early stages of Milgram's invention of this research: (1) his previous experience running adaptations of Asch's conformity experiment; and (2) the then popular post-World War Two stereotype that Germans had a proclivity for obeying higher orders. What follows is Milgram's own account of the early stages of the inventive process:

> I was working for Asch...in 1959 and 1960. I was thinking about his group-pressure experiment. One of the criticisms...is that they lack a surface significance, because after all, an experiment with people making judgments of lines has a manifestly trivial content. So the question I asked myself is, How can this be made into a more humanly significant experiment? And it seemed to me that if, instead of having a group exerting pressure on judgments about lines, the group could somehow induce something more significant from the person, then that might be a step in giving a greater face significance to the behavior induced by the group. Could a group, I asked myself, induce a person to act with severity against another person? (Cited in Evans, 1980: p. 188).

Milgram wanted to use group pressure to coerce participants into harming an innocent person. He then imagined an Asch-type experiment where a naive participant was placed among a group of actors:

> ...instead of confronting the lines on a card, each one of them would have a shock generator. ...I transformed Asch's experiment into one in which the group would administer increasingly higher levels of shock to a person, and the question would be to what degree an individual would follow along with the group. That's not yet the obedience experiment, but it's a mental step in that direction. (Cited in Evans, 1980: pp. 188-189).

Elsewhere, Milgram described the next conceptual step:

> I wondered whether groups could pressure a person into...*behaving aggressively toward another person*, say by administering increasingly severe shocks to him. But to study the group effect you would also need an experimental control; you'd have to know how the subject performed without any group pressure. (Cited in Tavris, 1974b: p. 80 [italics added]).

Milgram knew Asch overcame the problem of requiring an experimental control by running his line judgment exercise on participants in the absence of the group. However, Milgram was unable to draw from Asch's legacy because, as Miller (1986: p. 18) observed: "it was not obvious what the inducement would be for a solitary individual to administer shocks in increasing intensities to another person." With this problem in mind:

> ...my thought shifted, zeroing in on this experimental control. Just how far *would* a person go under the experimenter's *orders* [italics added]? It was an incandescent moment, the fusion of a general idea on obedience with a specific technical procedure. Within a few minutes, dozens of ideas on relevant variables emerged, and the only problem was to get them all down on paper. (Milgram cited in Tavris, 1974b: p. 80).

But what was the origin of this new idea to introduce 'orders' to 'behav[e] aggressively'? It was likely based on a common post-World War Two stereotype: "I came across many statements which implied that Germans tended to obey orders more conscientious[ly] than Americans." (Cited in Fermaglich, 2006: p. 88). The key source of these statements was almost certainly the broader post war 'obedience to authority' zeitgeist:

> Before Milgram, creative writers had incorporated striking incidents of obedience into novels, poems, and screenplays. Historians had written factual accounts of remarkably obedient individuals and groups. Psychologists had developed F- and other scales to measure inclinations towards authoritarian tyranny and subservience. (Elms, 1995: p. 22).

The following archival document perhaps captures Milgram's above "incandescent moment":

> "Studies in Obedience"
>
> 1) Wa[i]ver of responsibility—from experimenter—<u>For Germa[n]y</u>
> 2) <u>Panel</u> [followed by Milgram's sketch of a shock generator-type device]
> 3) The War Situation—2 naive S[ubject]'s. One must shock the other—1 way switch. Can be controlled by E[xperimenter].
> 4) <u>Working in teams:</u>
> 5) <u>The Pledge</u>. Subjects pledge to obey. | Because of certain possible hazards, the S. must adhere carefully to the instructions of the Exp[erimen]t[e]r" (Milgram cited Russell, 2018: pp. 49-50).

With Milgram's intention to undertake a study on *obedience*, which included a *waiver of responsibility* and a *pledge to obey* (an idea he soon after dropped), it appears he was attaching, to an Asch-like conformity experiment, some of the Nazi regime's most tried and tested techniques of coercion.

Milgram's "incandescent moment" has independently been traced back to May 1960 (Blass, 2004: p. 63; Russell, 2018: p. 48)—the same month of the widely reported capture of Nazi bureaucrat Adolf Eichmann, notorious for arguing he only followed higher orders (Cesarani, 2004: p. 277). So concurrently with Eichmann's capture, Milgram was converting Asch's study into "a humanly more significant experiment" where participants received "orders" to behave "aggressively toward another person..."

On arrival at Yale University, Milgram wrote a research proposal, which divided his research project into two sections: (1) the participant as one of several members of a group (experimental condition); (2) participants run through the experiment alone (control condition). Milgram elaborated on the experimental "group" condition:

> ...the critical subject is but one member of a group, and each member faces a control panel. [...] the experiment is designed so that subject B [the learner] receives his negative reinforcement only when all members of the group depress their control board switches in succession. Unknown to the critical subject, the first four members of the group are confederates [actors] of the experimenter, and willingly comply with E[xperimenter]'s commands on every occasion. (Cited in Russell, 2018: p. 60).

Before Milgram's students ran the first official pilot study, how did he believe participants in the two sections would react? Based on his "considerable experience with experiments in group pressure," Milgram thought some participants would "follow the group" and inflict every shock on the board (cited in Russell, 2018: p. 60). But with the alone control—where a singular authority figure would urge the participant to inflict intensifying shocks—he remained unsure, hazarding the guess that: "Presumably, the addition of group pressure will cause the critical subject to comply with the experimental commands to a far higher degree than in the 'alone' situation." (Cited in Russell, 2018: p. 60). For Milgram, this apparently predictable outcome wasn't important: the main purpose of the "alone control" was to "serve as necessary controls for the group experiments." (Cited in Russell, 2018: p. 60). Consequently, the "Obedience and Group Process" experiments "constitute[d] the major concern of the present research." (Cited in Russell, 2018: p. 61). Milgram's students then built a shock machine and, in November 1960, undertook the first pilot studies. Using fellow Yale students as participants, the "group" experiment confirmed Milgram's prediction that some participants would follow the group and inflict every shock. However, it was the "alone" control results that left Milgram "astonished": "about 60%" of these participants fully obeyed the authority figure (Cited in Russell, 2018: p. 62).

This surprising discovery saw Milgram change his experimental condition: thereafter, the "alone" participants' reactions to a higher authority's orders that they inflict intensifying shocks on an innocent person became the research focal point (the "group" obedience studies were relegated to a couple of minor variations). Instead of contributing to Asch's legacy, Milgram thereafter pursued his

own path: how the individual responds to an authority figure's malevolent demands.

In August 1961 Milgram was ready to undertake the first official baseline experiment using ordinary participants from the New Haven community. He described the procedure to, among other groups, 39 psychiatrists, who predicted that only one in a thousand participants—a "pathological fringe"—would administer the highest shock on the board (Milgram, 1974: p. 31). But during the first official experiment, in response to the authority's demands that "The experiment requires that you continue" and, if necessary, "...you *must* go on" (among other prods), 65 percent of participants inflicted what appeared to be three consecutive 450-volt shocks on an innocent person (Milgram, 1963: p. 374). It became Milgram's "best-known result" (Miller, 1986: p. 9).

What can one conclude from Milgram's inventive techniques during the *Graduate Phase (1954-1960)*? Milgram's first step when inventing his conformity thesis involved his reading the *previous literature* on national stereotypes, an act that led him to *observe a gap in the knowledge*: the previous research was speculative (thus, he utilized the methods textbook authors' second most frequently mentioned inventive technique). This knowledge gap provided Milgram with a key insight: applying a scientific investigative technique to this research area would be innovative. Milgram envisioned such a technique: an adaptation of Asch's *Group Conformity* experiment. Therefore, the second main step in the inventive process saw Milgram *combine aspects of two discrete and otherwise unrelated fields of knowledge* (the textbook authors' eighth most frequently mentioned inventive technique): that of national stereotypes and Asch's group conformity study.

Milgram's invention of the *Obedience Studies*, however, only shares one key similarity with his invention of the earlier project. That is, Milgram again *combined aspects of two discrete and otherwise unrelated fields of knowledge* (again, the eighth most frequently mentioned inventive technique): Asch's *Group Conformity* experiment and the post-war 'obedience to authority' zeitgeist. But unlike the invention of the earlier project, Milgram's combining of two discrete fields of knowledge was this time not preceded by his reading of the previous specialist literature (perhaps because in both fields, none or little existed).[11] To clarify, it transpires that Asch's Group Conformity study traced back to a childhood experience:

> As a boy of 7, [Asch] stayed up for his first Passover night. He saw his grandmother pour an extra glass of wine and asked whom it was for. For the prophet Elijah, an uncle told him. "Will he really take a sip?" the boy asked. "Oh, yes," the uncle replied. "You just watch when the time comes." Filled with a sense of suggestion and expectation, the boy thought he saw the level of wine in the cup drop just a bit. (Stout, 1996; New York Times: 29 February, D19).

[11]Perlstadt's (2014: p. 23) article titled "The Missing Literature Review..." notes that although Milgram (1963) mentioned several related studies to his own research, the article "did not include a standard literature review..." Consequently, Perlstadt felt it important to complete this task. Although Milgram, either before, during, or after undertaking the Obedience Studies, could have undertaken a similar comprehensive review of the literature, the point is, he did not.

Thus, Asch's study was conceived on such an original foundation, there was no related specialist literature preceding it. This explains why the reference section of Asch's group conformity article consists of only three publications; two of which were his own (see Asch, 1956). And Milgram's other field of knowledge—the obedience to authority zeitgeist—was a non-specialist, multi-disciplinary (diverse), and unintegrated literature.

Also different to the invention of Milgram's earlier conformity thesis was his discovery during the "alone" obedience pilot that most—about 60 percent—participants willingly completed the experiment (a discovery that he reacted to by making the pilot-study control his new first official experimental condition). Hence, Milgram acted on a *serendipitous discovery* (the seventh most frequently mentioned inventive technique). Having presented *(3.1) Graduate Phase*, what follows is Milgram's *(3.2) Teaching Phase*.

3.2. Teaching Phase (1961-1984)

As a professor across the above period, Milgram completed a variety of research projects. What follows describes his invention of three such projects—(3.2.1) the *Lost Letter Experiment*, (3.2.2) the *Familiar Stranger Project*, and (3.2.3) the *Subway Seat Experiment*—because they best illustrate what, across the *Teaching Phase*, emerged as Milgram's dominant creative norm.

3.2.1. Lost Letter Experiment

There is a widely held social expectation that if a lost letter is found, one should best ensure the intended recipient receives it. But what if the letter is addressed to a contentious political party that one privately supports or despises? Although the finder may be unwilling to publicly admit, say, in a political questionnaire, their true allegiances, their actions—helping or hindering the letter's delivery—may reveal them.

To detect contentious political allegiances, Milgram, Mann and Harter (1965) undertook an experiment that capitalized on this social expectation. Throughout New Haven, they dispersed 400 identically addressed stamped letters, on street pavements, in shops and telephone booths, and under car windshield wipers (with the note "found near car"). The letters differed only in the name of the intended recipient: 100 to "Friends of the Nazi Party", 100 to "Friends of the Communist Party", 100 to "Mr. Walter Carnap", and 100 to "Research Medical Associates." Over the next few weeks, the researchers tallied how many letters from the four respective groups arrived at their private mailbox. The return rates were:

Addressee:	Return rate:
Friends of the Nazi Party	25/100
Friends of the Communist Party	25/100
Mr. Walter Carnap	71/100
Research Medical Associates	72/100

These results indicated that the letters addressed to the Nazi and Communist Parties stimulated, relative to those addressed to the neutrally titled Mr. Walter Carnap and Research Medical Associates, greater negative sentiments among the New Haven community. This simple experiment provided other researchers with an unobtrusive method that could "...measure attitudes without people's knowledge, through their actions instead of their words." (Milgram, 2010, 1969: 337). The method also had the potential to reveal unobtrusively the political preferences of people living under or in fear of an authoritarian regime, like, for example, North Korea or pre-1990s Taiwan region. The technique may also have proved useful during the lead up to the 2016 U.S. presidential campaign where, in political surveys, many Americans expressed support for Hillary Clinton but in the privacy of the ballot box voted for Donald Trump. That is, in the lead-up to this election, how would lost letters addressed to *The MAGA Trump Campaign* have fared against those addressed to *The Clinton* (or *2024 Harris*) *Campaign*?

So how was this experiment invented? During the spring of 1963 at Yale University, the idea grew from an exciting classroom discussion. Milgram notes the 10 students in his graduate seminar class,

> ...were examining research methods, and I got a class discussion going on new methods of measuring attitudes [...] The orienting question was: let[']s go beyond questionnaires and surveys and see if we can measure people[']s orientations towards social objects in an unobtrusive way. The discussion led to a notion that somehow we should lose a package on the street. I can remember specifically who presented that notion. It was [students] Susan Hardar [*sic*] and Leon Mann. As soon as they said that, it triggered the idea. They wanted to study reactions to a lost package or object. But what seemed desirable to me was translated into [a] sociological plan, and see whether different social objects would elicit systematically different responses; and that the responses could...therefore be used as a measure of orientation towards those social entities such as the communist party and fascist party. (Stanley Milgram Papers, Box 23, Folder 382, titled "On being a social psychologist. An Interview with S. Milgram by Maury Silver", pp. 9, circa 1972).

Leon Mann termed this largely three-way conversation "creative chit-chat" (cited Blass, 2004: p. 138), with the trio bouncing ideas off one another until a research design emerged. That said, Mann implies that Milgram undertook most of the methodological heavy lifting: "'It was characteristic of Stanley's genius that he could turn this simple observation into a workable psychology experiment." (Cited in Blass, 2004: p. 138). The creation of the *Lost Letter Experiment* diverges only slightly from the invention of another creative endeavor: the *Familiar Stranger Project*.

3.2.2. Familiar Stranger Project

In the early 1970s Milgram envisioned the concept of the *Familiar Stranger*. A

Familiar Stranger is someone in the urban environment who is regularly seen, easily identified, but is not formally interacted with—they are simultaneously known (familiar) and unknown (stranger). In Milgram's words: "For years I've taken a commuter train to work. I noticed that there were people at my station whom I had seen for many years but never spoken to..." (Cited in Tavris, 1974b: p. 71). Intriguingly, Familiar Strangers "are treated as part of the environment, equivalent to the scenery, rather than persons with whom one talks, exchanges greetings." (Milgram, 2010, 1972: p. 60). With Familiar Strangers "...there remains a poignancy and discomfort, particularly when there are only two of you at the station: you and someone you have seen daily but never met. A barrier has developed that is not readily broken." (Cited in Tavris, 1974b: p. 71). This mutual barrier is, however, easily shattered: the further away one encounters a Familiar Stranger from their usual setting—say, seeing them overseas—the more likely both parties will feel compelled to exchange pleasantries, then engage in an extended and lively conversation (Milgram, 2010, 1972: p. 60).

As a subway commuter, the *Familiar Stranger* concept emerged from Milgram's internal dialogue—a more introspective form of Mann's "creative chit-chat." What happened next is unclear. To study the concept, Milgram either formulated a research design or, like with the *Lost Letter Experiment*, this step was completed in the company of his students. Either way, once the students were armed with the research design, they embarked on data collection: photos of commuters standing on their local platforms were surreptitiously taken and, soon after, student researchers descended onto these platforms as the commuters, again, awaited their morning train. The student researchers provided each commuter with a copy of their station's photo (on which sequential numbers were written beside each person in the platform photo). The commuters were also provided with a questionnaire designed to elicit any insights they had about their numerically labelled fellow commuters. The results revealed, inter alia, that the commuters recognized, on average, 1.5 commuters they conversed with and 4.0 Familiar Strangers (Milgram, 2010, 1972: p. 62).

With the exception that Milgram's "creative chit-chat" occasionally occurred when alone, Takooshian's (2000: p. 16) summation of Milgram's approach to research invention during the *Teaching Phase* is accurate:

> ...[Milgram's] teaching fed his research, routinely spawning new ideas. Since his Yale years, so many of Milgram's most intriguing publications were based on ideas born in his classes—the small world problem, the lost letter technique, the familiar stranger, the lost child, the drawing power of crowds, social intrusion, cognitive maps, urban overload, queues, the image-freezing machine, cyranoids, and the urban simulator.

One notable exception to Milgram producing research ideas with his students (or on his own) was the *Subway Seat Study*.

3.2.3. Subway Seat Study

This study, which Milgram co-authored with his student John Sabini, tested the

reactions of New York subway commuters to a collaborator's politely delivered request: "Excuse me. May I have your seat?" Before running the study, a group of people were asked to guess the percentage of commuters who would acquiesce. They predicted, on average, that about 14% would comply—that most New Yorkers wouldn't budge. The study's results, however, revealed that 56% of commuters approached gave up their seats, while another 12.3% moved over to make room for the collaborator. In short, 68.3% responded positively.

The co-authored chapter indicates that their research process followed a specific start-to-finish sequence. The study's opening sentence, for example, suggests this was a hypothetico-deductive *theory testing* research project: "The general question that motivated this research was: How are social norms maintained?" (Milgram & Sabini, 1978: p. 31). The chapter then provides a review of the previous theoretical contributions shedding light on this question, the contents of which then apparently "determined our strategy: we would violate a residual rule and observe the consequences to the violator." (Milgram & Sabini, 1978: p. 32). The authors' means of violating a residual rule then followed: have a confederate ask a subway commuter for their seat. The running of this test provided the authors with the above results. Finally, these results enabled the authors to assess the validity of the previous theories on social norm maintenance. This start-to-finish sequential inventive process sounds logical, rational, conventionally scientific and, as a result, would probably have increased the authors' chances of, on completion, impressing potential publishers. However, this sequential overview is not only inaccurate, it also omits the creative spark that inspired the research.

Despite the chapter's opening line that this study was "motivated" by the question of how "social norms" are "maintained", its true origin traced back to a question posed by Milgram's stepmother: she asked him why subway commuters failed to offer their seats to the elderly. Milgram then queried if she had ever *asked* for a seat (Blass, 2004: p. 173; Milgram, 2000: p. 6; Takooshian, 2000: p. 17). Milgram soon after raised the question with his students. Collectively, the group designed a basic procedure, then the students entered the subway system to obtain an answer. This different sequence of events suggests that the invention of the methodological subway seat technique *preceded* the decision to test the validity of the theories on social norm maintenance (thus, the literature review that likely led the authors to these theories probably came *after* the invention of the subway seat technique). Also important is that, somewhat in conflict with Milgram's general inventive norm, the *initial* creative spark for this study—the conversation with his stepmother—again illustrates that Milgram's "creative chit chat" could occur beyond his students' company.

4. Discussion

Across Milgram's *Teaching Phase (1961-1984)*, a general creative strategy is dis-

cernable. In the form of *creative chit-chat* with himself or others (typically students), Milgram developed research ideas *and*, immediately or soon thereafter, mapped out the research's methodological design. Most importantly, it appears that Milgram completed both tasks without consulting the previous specialist literature. At least three lines of evidence support this conclusion. Firstly, when devising then designing research projects, he does not mention undertaking an early and deep review of the previous literature (a conclusion supported by Maury Silver).[12] Secondly, Milgram's aforementioned publications across the *Teaching Phase* have few, and sometimes no, references.[13] Finally, and related to the second point, although sometimes Milgram's research ideas were so original that there was no previous literature to consult, when such a literature did exist, he occasionally paid it little attention (for example, see Footnote 13). If Milgram undertook a review of the previous literature, he did so at some point *after* having designed his research's methodological framework.

It is tempting to conclude, as some psychologists have, that Milgram's ignorance of the previous literature rendered him "...a dilettante who flitted from one newsworthy phenomenon to the next, not staying with any long enough to probe it in adequate depth" and therefore, unlike more serious researchers, he never did "programmatic, time-consuming research." (Blass, 2004: pp. 259-260). Then again, is it possible that many of Milgram's research ideas were original *because* he did not undertake early and comprehensive reviews of the previous specialist literature? Put differently, was his ignorance of the previous specialist literature

[12]As Maury Silver, who left Harvard University to study under Milgram at CUNY (Takooshian, 2000: p. 15), said: "...one of the strangest things [...] I learned in those seminars [with Milgram] was a sense of incompleteness; almost a fear of emptiness until some idea did materialize. You never knew you had an idea. It was totally contradictory [...] In almost any other course or seminar [not led by Milgram] you work on an assumed complete body of knowledge. And then you compare various studies, ideas, or whatever. Either you start from previous research and compare and contrast it, even if you have a critical attitude[,] it is still from the literature, from the series of problems that have been traditionalized." However, in Milgram's classes, one starts "...to work on something that is completely new, and in which most of the work is in inventing the question, forget about the answer, just inventing the question, is a new experience for most graduate students and closest to the research you are going to do. It is a frightening experience and I think it is very important." (Stanley Milgram Papers, Box 23, Folder 382, titled "On being a social psychologist. An Interview with S. Milgram by Maury Silver", pp. 30-31, circa 1972). As Blass (2004: p. 240) observed: "Part of Milgram's genius...was to identify questions worth pursuing and then, if needed, invent methods suited for them."

[13]The above studies Milgram undertook during his *Teaching Phase* averaged three references each: Lost Letter, 0; Familiar Stranger, 0; and the Subway Study, 9 (see Milgram, Mann, & Harter, 1965; Milgram, 1972; Milgram & Sabini, 1978). Additionally, the Small World Study, across two publications, averaged 11 references (see Milgram, 1967; Travers & Milgram, 1969). Milgram's research on Television and Anti-Social Behavior (Milgram & Shotland, 1973) and Obedience to Authority (Milgram, 1974) provided 17 and 93 references (respectively), but both were books. As Blass (2004: 195) notes about Milgram's co-authored book: to the chagrin of other researchers, "...there is virtually no attempt to relate the findings to the vast amount of prior research on...the effects of violence in the media." Milgram's tendency to rarely reference other scholars' contributions is remarkable. For example, Adair and Vohra (2003: p. 17) found peer reviewed articles published between 1972 and 1980 in the *Journal of Personality and Social Psychology* averaged 22.9 references (and by 2000 this average increased to 66.6 references). Peer reviewed articles published between 1972 and 1980 in the *American Sociological Review* averaged 40.1 references (and by 2000 this average increased to 61.3).

a—perhaps *the*—key ingredient to his creative flair?[14] Certainly, and as shown, Milgram enjoyed revealing counterintuitive results—empirically based insights that challenged common beliefs. And, thus, perhaps because Milgram was little interested in the existing specialist knowledge on any one topic, nor in discussing how a problem was conventionally pursued, his own scholarly view of a research problem remained unaffected by any tunnel vision associated with the more conventional "way/s" of "seeing". Oblivious to the perspectives, struggles, and biases inherent within any specialist literature, Milgram's independent thought process could conjure different and new ways of "seeing". Carelessly drifting in his own creative space, Milgram was arguably free to envision things that the specialists, shackled within the parochial boundaries of their own fields, could not.

Curiously, Milgram's frequent drawing of research ideas from interpersonal "real-life" experiences and interactions (and not from the previous literature) is an inventive technique that other leading scholars have relied upon. Consider, for example, Solomon Asch's previously mentioned childhood recollection which inspired his conformity research. Also consider the words of psychologist Robert Sternberg:

> All of my ideas (almost) come from watching people—myself, students I work with, my kids, my relationships with people, other people's relationships, and so on... The point is that in psychology, there is no better data source than the people around you. I've never found books or lectures or labs as good as real experience for getting ideas... (Cited in Goodwin & Goodwin, 2017: p. 69).

In sociology, it is unlikely Ervin Goffman's (1959) classic book *The Presentation of Self in Everyday Life* was inspired by his reviewing of existing sociological literature. Instead, at the inventive stage, Goffman drew on personal childhood experiences associated with his sister's deep involvement in the local Dauphin and Winnipeg theatre scenes. Cavan (2014: p. 59) concludes that it was through these early experiences that it "is likely [Goffman] was introduced to ideas like *front stage* and *back stage*, *performance* and *playing a role* [...] Clearly the idea of dramaturgy was planted and cultivated in his youth."[15] This conclusion is also applicable to his wider oeuvre: "...much of Goffman's writing is crypto-biographical,

[14]It is undoubtably a simplification to attribute, as this article does, much of Milgram's creative talents to a singular technique. Other factors likely contributed to Milgram's creative abilities. For example, from a young age he had a reputation for being intellectually curious and he repeatedly demonstrated a strong interest in creative problem-solving (see Blass, 2004: pp. 1-16). As Milgram said about his childhood: "I was always doing experiments; it was as natural as breathing, and I tried to understand how everything worked." (Cited in Tavris, 1974a: p. 77). Also, some sociological (structural) forces may have enhanced the ambitiousness of Milgram's creative endeavours. For example, is it just a coincidence that what are arguably the two most (in)famous social psychology experiments—Milgram's *Obedience Studies* and Philip Zimbardo's *Stanford Prison Experiment*—were invented and undertaken by two people from working class families who happened to attend the same high school, in the same year, and were acquaintances (see Russell, 2018: p. 38)? What was it about The Bronx NYC across the 1940s and 1950s—socially, culturally, and/or socioeconomically—that, to some, degree, likely contributed to the production of such innovative yet highly unethical research?

[15]Also, Goffman's (1961) book *Asylums* was based on a three-year observation study at Washington D.C.'s St Elizabeth Hospital (Fine & Manning, 2003: p. 36). And, on looking after his sick wife, Goffman's writing on mental illness may have been inspired by his "own personal observations of it at home. Perhaps nowhere is this clearer than in his 1969 essay, "The Insanity of Place," which is, arguably, autobiographical." (Fine & Manning, 2003: p. 36).

that his sociological imagination drew on his personal experience, and that key turns in his intellectual career reflected his life's trajectory and its historical context." (Shalin, 2014: p. 3). Goffman's unconventional inventive approach may explain why his work "...does not easily fit within a specific school of sociological thought." (Fine & Manning, 2003: p. 34).

Nonetheless, considering how Milgram's dominant creative norm—specifically, his circumvention of undertaking of an early literature review—conflicts so sharply with the textbook recommendations on idea formation (which typically suggest an early literature review be undertaken), how should the budding researcher proceed?

The Researcher's Toolbox: Best of both Worlds

The textbooks' advice on idea creation—which typically revolves around undertaking, in an area of interest, an early review of the previous literature—is sensible advice that, as this literature often notes, can generate numerous benefits. But what these textbooks almost exclusively fail to mention are the potential drawbacks associated with undertaking an early literature review, including that:

- If the previous literature contains an undetected flaw in logic, the researcher is likely to absorb it into their own research project.
- Reading the most impressive contributions in the previous literature before fully scoping out one's own research idea can potentially diminish a researcher's confidence: one can come to suspect that they could never produce something *that* clever. Also, reading the most impressive contributions in the previous literature can potentially promote the false belief that all the best ideas in that research area have long been snapped up. In sum, intimidated by the previous literature, a budding researcher may then lower their aim, and thus their ambition.
- Reading the occasionally contradictory findings in a specialist research area can, as the textbooks often note, provide the reader with a research angle: the opportunity to unravel, expose, and then overcome the contradiction/s. But exposure to numerous contradictions in the previous literature can also impose on the budding researcher feelings of bewilderment, confusion, and hopelessness, to the point of not knowing what to think.
- If the authors of the previous literature view a problem in the same or similar narrow way, the reader is likely to inherent that parochial lens.

This last point is, in different words, repeated in the only textbook in the sample that alerted readers to the possible disadvantage of undertaking an early review of the existing literature:

> It is worth noting that a thorough knowledge of one's field may be a prerequisite to reactive thinking in science, but *the blade is double-edged*. Such knowledge can also create rigid patterns of thinking that inhibit creativity. Scientists occasionally become so accustomed to a particular method or so comfortable with a particular theory that they fail to consider alternatives, thereby reducing the chances of making new discoveries. (Goodwin & Goodwin, 2017: p. 85 [emphasis added]).

It is therefore suggested that future social science methods textbooks outline the pros and cons that exist on *both* sides of this double-edged blade.

Importantly, many of the benefits associated with Milgram's favored approach to idea generation, can, to some extent, overcome many of the above potential drawbacks associated with undertaking an early review of the previous specialist literature. For example, because Milgram was often oblivious of the specialist literature, he could exploit the following advantages:

- if a flaw in logic lay hidden within a specialist literature, his unadulterated and independent research idea could, when later exposed to that literature, potentially render it conspicuous, thereby affording him the opportunity to reveal it.
- he circumvented the false belief that all the best ideas have long been discovered.
- his habit to lead and not follow reduced, relatively speaking, his feelings of confusion.
- his confidence that he might discover something new remained undented and generally high (perhaps explaining why he found generating innovative research ideas "pleasurable").
- any narrow lens or rigid patterns of thinking inherent within the previous literature was unable to undermine his "creativity."

That said, there are some risky drawbacks associated with Milgram's favored creative approach. Perhaps the most salient downside being that, as many textbooks in the sample noted, developing a research idea independent of an early review of the previous specialist literature risks one investing much time and effort into a project already undertaken by someone else.[16]

It is not being suggested here that Milgram's dominant approach to generating research ideas is 'better' than the wide range of suggestions offered by the textbook literature. As just demonstrated, both approaches have their respective strengths and weaknesses. What is being suggested is that, as is currently seldom the case, in methods textbooks budding researchers should be exposed to *both* approaches (accompanied by their respective strengths and weaknesses). From this more informed position, students can make up their own minds on how to proceed.[17]

It is also suggested that attention needs to be paid to finding any potential sweet spots between both approaches to generating research ideas. That is, in relation to both the textbook and Milgram's approach: how can, across a single technique, their respective weaknesses be minimized and their respective strengths be max-

[16]For Milgram, this risk was real. For example, the above quote on the invention of the Lost Letter Experiment illustrates that the initial idea was to plant lost packages on the streets and test people's honesty. Had Milgram and his class pursued this research idea, they would inadvertently have undertaken a study completed by Merritt and Fowler (1948).

[17]Another potential misinterpretation of the present research is that it suggests budding researchers, in fear of adulterating their creative abilities, *should not read* materials in their area/s of interest. No such suggestion is made. Milgram, for example, was a voracious reader on a wide variety of topics. Considering Milgram's above creative process, what is warned against is *closely reading the specialist literature* on a specific research topic before mapping a potential study's methodological design. In fact, reading frequently and broadly aids research creativity in that doing so enables a researcher to envision potential connections between seemingly unrelated research fields (which, again, the above methods textbooks frequently indicate is a powerful technique of idea development).

imized? For example, independent of an early literature review, a budding researcher—over, say, several semesters—could envision, partially develop, then record a variety of potential research ideas. Then on amassing a handful of ideas, they could systematically check the previous literature to ascertain each idea's originality and potential. Perhaps one or more of those ideas might, in some way, prove original.

5. Conclusion

With only a few exceptions, this article generally supports Bachrach's (1967) epigraphical *First Law of Research*: researchers do not undertake research the way textbook authors say they do. Milgram's preferred approach when inventing research ideas conflicted sharply with most of the advice offered by this study's textbook sample. Although these textbooks collectively offered a wide range of clearly useful inventive techniques, many were associated with the requirement that before the research design stage, students should, in their general area of interest, undertake a review of the previous specialist literature. After completing his PhD, Milgram veered away from this conventional approach and for more than two decades he repeatedly relied on a different inventive process: often with students, Milgram developed research ideas and then, immediately or soon after, mapped out the research design, typically doing so without consulting the previous literature, whether it existed or not. At best, Milgram's review of any previous literature came after the research design stage. Although most of the sample textbooks provided suggestions on idea formation (13 out of 17 or 76.5%), many of them explicitly and strenuously discouraged students from pursuing an approach like Milgram's.[18] They did so because students might invest much time and effort into a

[18]Although rare, one textbook provided advice mirroring Milgram's creative approach to idea generation. As Lune and Berg (2017: pp. 14-15) note: "...you merely need to open your eyes and ears to the sensory reality that surrounds all of us to find numerous ideas for research. In fact, once you become familiar with this orientation, the biggest problem will be to filter out all the many possible researchable ideas and actually investigate one! Most experienced qualitative researchers will agree that if you drop an investigator into any neighborhood, he or she will manage to identify a research idea, develop a research plan, and project potential research findings before lunch. I sit on a morning commuter train and look around me. The difference between the crowded rush-hour trains and the sparsely populated later trains is extreme. How did we come to define "work hours" in such a regimented fashion? How is this changing as more people are able to "telecommute"? If the manufacturing sector is shrinking in the United States, while service work is growing—and service work is increasingly done around the clock—why is rush hour still so crowded? [...] I could spend the rest of my career trying to understand this train. This notion is likely to contrast dramatically with the inexperienced researcher's fear that he or she cannot even think of anything worthwhile to research. There may be considerable truth to the optimistic view of experienced researchers." An excellent example of such a researcher was sociologist William Chambliss who wrote *The Saints and Roughnecks* (Chambliss, 1973) and *On the Take* (Chambliss, 1978), both widely perceived as "classic" contributions (Cullen, Chouhy & Jonson, 2020: p. 253; Potter, 2014: p. 9). Although Chambliss gave the impression he dropped himself into the field then serendipitously identified insightful research projects (see 20:10 of https://www.youtube.com/watch?v=ceV4Skc-TiQ&t=603s, retrieved November 6, 2024), importantly scholars do enter the field with their own critical lens: he was, for example, a Marxist conflict theorist sensitive to the existence of, as Mark S. Hamm notes, "...double standards in the application of law and justice in capitalist societies." (As cited in Cullen & Wilcox, 2010: p. 147). Although Lune and Berg discuss more inductive approaches **to** creative idea generation, for more creative deductive approaches, see McGuire (1997).

research idea that, it later transpires, had already been completed by someone else. Accompanying this warning, the textbooks often presented a variety of advantages associated with undertaking an early literature review, including, for example, that one's understanding of the subject matter will only deepen. With only one exception, the textbooks in the sample failed to present the potential disadvantages associated with undertaking an early and deep reading of the specialist literature. The problem, it seems, is that the textbooks in the sample typically focused only on the potential downsides of an inventive approach like Milgram's and they ignored the numerous benefits he was able to reap.

It is also suggested that future introductory social science methodology textbooks pay greater attention to the issue of creativity, as challenging as this task may be, and that they present a more detailed, rounded, and balanced approach when providing advice on this difficult and often anxiety-inducing stage of the research process. Finally, because the present research was only based on a singular and thus limited case study, it is suggested that future research undertake replications using other 'high impact' creative forces in psychology and sociology like Albert Bandura, Carl Jung, C. Wright Mills, Erving Goffman, William Chambliss, and Dorothy Smith.

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Conflicts of Interest

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Appendix 1

Textbook Author/s	*Title*	*Edition*	*Discipline*
Babbie et al. (2020)	*Fundamentals of social research*	5th Canadian ed.	Sociology
Bell et al. (2022)	*Social Research Methods*	6th Canadian ed.	Sociology
Carr et al. (2021)	*The Art and Science of Social Research*	2nd ed.	Sociology
Cozby et al. (2020)	*Methods in Behavioural Research*	3rd Canadian ed.	Psychology
Diez et al. (2019)	*OpenIntro Statistics*	4th ed.	Psychology
Fox & Imbeau (1999)	*Statistiques Sociales*	3e éd.	Sociology
Goodwin & Goodwin (2017)	*Research in Psychology: Methods and Design*	8th ed.	Psychology
Gravetter et al. (2021)	*Essentials of Statistics for the Behavioral Sciences*	10th ed.	Psychology
Healey et al. (2019)	*Statistics: a tool for social research*	4th Canadian ed.	Sociology
Jhangiani et al. (2019)	*Research Methods in Psychology*	4th ed.	Psychology
Lune & Berg (2017)	*Qualitative Research Methods for the Social Sciences*	9th ed. (Global Edition)	Sociology
Morling (2020)	*Research Methods in Psychology: Evaluating a World of Information*	4th ed.	Psychology
Price et al. (2015)	*Research Methods in Psychology*	2nd Canadian ed.	Psychology
Smith & Davis (2013)	*The Psychologist as Detective: An Introduction to Conducting Research in Psychology*	6th ed.	Psychology
Symbaluk (2019)	*Research Methods: Exploring the Social World in Canadian Contexts*	2nd ed.	Sociology
Vallerand & Hess (2000)	*Méthodes de Recherche en Psychologie*	1st ed.	Psychology
Wilkinson et al. (2019)	*The Research Process*	4th Canadian ed.	Sociology

Appendix 2

U15 University	Psychology (most elementary methods course)	Textbook and Type of Textbook	Sociology (most elementary methods course)	Textbook and Type of Textbook
University of Alberta	PSYCH 212: *Introduction to Research Methods in Psychology*	Morling (2020) (Intro. Quan. & Qual. Textbook)	SOCI 315: *Introduction to Social Methodology*	Bell et al. (2022) (Intro. Quan. & Qual. Textbook)
University of British Columbia	PSY 217: *Research Methods*	Cozby et al. (2020) (Intro. Quan. & Qual. Textbook)	SOCI 217: *Research Methods*	Bell et al. (2022) (Intro. Quan. & Qual. Textbook)
University of Calgary	PSYC 300: *Research Methods and Data Analysis in Psychology I*	Smith & Davis (2013) (Intro. Quan. & Qual. Textbook)	SOCI 313: *Introductory Social Research Methods*	Symbaluk (2019) (Intro. Quan. & Qual. Textbook)
Dalhousie University	PSYO 2501: *Statistical Methods I*	Diez, Çetinkaya-Rundel & Barr (2019) (Intro. Quan. Textbook)	SOSA 2007: *Thinking Sociologically*	Not known. The *Department of Sociology and Social Anthropology* did not respond to multiple requests for this information.
Université Laval	PSY 1005: M*éthodes de recherche*	No textbook used	SOC 1001: *Introduction aux méthodes quantitatives en sociologie*	Fox & Imbeau (1999) (Intro. Quan. Textbook)
University of Manitoba	PSYC 2250: *Introduction to Psychological Research*	Morling (2020) (Intro. Quan. & Qual. Textbook)	SOC 2292: *Understanding Social Research*	Babbie et al. (2020) (Intro. Quan. & Qual. Textbook)
McGill University	PSYC 306: *Research Methods in Psychology*	Gravetter et al. (2021) (Intro. Quan. Textbook)	SOC 211: Sociological Inquiry	Babbie et al. (2020) (Intro. Quan. & Qual. Textbook)
McMaster University	HUMBEHV 3MD3: *Research Methods for Applied Psychology in Human Behaviour*	Cozby et al. (2020) (Intro. Quan. & Qual. Textbook)	SOCIOL 2Z03: *Introduction to Sociological Research*	Babbie et al. (2020) (Intro. Quan. & Qual. Textbook)
Université de Montréal	PSY 1006: *Méthodologie scientifique*	Vallerand & Hess (2000) (Intro. Quan. & Qual. Textbook)	SOL 1018: *Initiation à la recherche sociologique*	No textbook used
University of Ottawa	PSY 2174: *Research Methods and Ethics*/ PSY 2574: *Méthodes de recherche et éthique*[19]	Cozby et al. (2020) (Intro. Quan. & Qual. Textbook)	SOCI 1301: *Building Sociological Reasoning*	Wilkinson et al. (2019) (Intro. Quan. & Qual. Textbook)
Queen's University	PSYC 203: Research Methods in Psychology	Goodwin & Goodwin (2017) (Intro. Quan. & Qual. Textbook)	SOCY 210: *Social Research Methods*	Babbie et al. (2020) (Intro. Quan. & Qual. Textbook)
University of Saskatchewan	PSY 235.3: *Research Methods and Design*	Jhangiani et al. (2019) (Intro. Quan. & Qual. Textbook)	SOC 232.3: Methods of Social Research	Bell et al. (2022) (Intro. Quan. & Qual. Textbook)

[19]These two courses are the same except one was delivered in English, the other in French.

Continued

University of Toronto	PSY203H1: *Psychological Research*	Morling (2020) (Intro. Quan. & Qual. Textbook)	SOC202H1: *Introduction to Quantitative Methods in Sociology* SOC204H1/ *Introduction to Qualitative Methods in Sociology*[20]	Healey, Prus & Lieflander (2019) (Intro. Quan. Textbook) Lune & Berg (2017)[21] (Intro. Qual. Textbook)
University of Waterloo	PSYCH 291: *Basic Research Methods*	Morling (2020) (Intro. Quan. & Qual. Textbook)	SOC 221: *Research Methods*	Bell et al. (2022) (Intro. Quan. & Qual. Textbook)
Western University	Psychology 2801F 200: *Research Methods in Psychology I*	Price, Jhangiani & Chiang (2015) (Intro. Quan. & Qual. Textbook)	Sociology 2206A/B: *Research Methods in Sociology*	Carr et al. (2021) (Intro. Quan. & Qual. Textbook)

[20]Unlike most departments, the University of Toronto's Department of Sociology does not offer a general methods course that combines quantitative and qualitative methods. Instead, their teaching of introductory methods is spread across two separate courses, which explains why there are two textbooks in this quadrant (the Université Laval's Département de sociologie has a similar system except SOC 1001: *Introduction aux méthodes quantitatives en sociologie* must be completed before SOC 1004: *Introduction aux méthodes qualitatives en sociologie*, and thus the former course is considered more elementary than the latter).

[21]There were several sections of SOC204H1across the F2022 and W2023 semesters. The different sections used several different textbooks or, in one section, no textbook at all. That said, the single most frequently used textbook was Lune and Berg (2017), thereby justifying its singular selection and entry into the sample.

Appendix 3

Textbook	*Does the Textbook Provides Suggestions on Idea Formation?*	*Does the Textbook Explicitly Suggest Students Undertake a Review of the Literature that Precedes Research Design?*	*Does the Textbook Mention Any Potential Disadvantages Associated with Undertaking a Deep and Early Review of the Previous Literature?*
Babbie et al. (2020)	*Yes (pp. 53-54, 441-442, 461-462)*	*Yes (pp. 441-442, but with caveats pp. 48, 461-462)*	*No*
Bell et al. (2022)	*Yes (p. 75)*	*Yes (p. 74, but with a caveat p. 75)*	*No*
Carr et al. (2021)	*Yes (p. 56)*	*Yes (pp. 56-57, 58, 111)*	*No*
Cozby et al. (2020)	*Yes (pp. 18-23)*	*Yes (p. 26)*	*No*
Diez et al. (2019)	*No*	*No*	*No*
Fox & Imbeau (1999)	*Yes (pp. 24-25)*	*No*	*No*
Goodwin & Goodwin (2017)	*Yes (pp. 69, 84-85)*	*Yes (p. 86)*	*Yes (p. 85)*
Gravetter et al. (2021)	*No*	*No*	*No*
Healey et al. (2019)	*No*	*No*	*No*
Jhangiani et al. (2019)	*Yes (pp. 66-67, 69)*	*Yes (pp. 57, 59)*	*No*
Lune & Berg (2017)	*Yes (pp. 14-16)*	*Yes (p. 15)*	*No*
Morling (2020)	*No*	*No*	*No*
Price et al. (2015)	*Yes, (pp. 31, 32)*	*Yes (p. 9)*	*No*
Smith & Davis (2013)	*Yes (pp. 4, 5, 14, 16-19)*	*Yes (pp. 4, 13)*	*No*
Symbaluk (2019)	*Yes (p. 47)*	*Yes (pp. 47-48)*	*No*
Vallerand & Hess (2000)	*Yes (pp. 11, 15, 16)*	*No, but it implies they do so (pp. 11, 12)*	*No*
Wilkinson et al. (2019)	*Yes*	*Yes (pp. 13, 15, 24, 36)*	*No*

Appendix 4: Cohen's Kappa Test

A Cohen's Kappa Test was performed to assess inter-reliability between the two textbook raters, Jasmine S. Teed and Nestar Russell. Both reviewed 7286 pages (corresponding to the sum of the total pages of each of the textbooks reviewed for this project). The third author, Nazario Robles Bastida, created a rater variable for Jasmine and a rater variable for Nestar using SPSS. The coding procedure was to code as 0 those pages where the reviewer did not find a discussion on generating research ideas and to code as 1, pages where the reviewer did find a discussion on generating research ideas. The 7286 pages that constitute the total sample of the project were coded in this way for both reviewers. Once all data was coded, a Cohen's Kappa Test was run in SPSS to determine if there was agreement between the first and second author's judgement on whether the textbooks had or failed to have discussions regarding the topic of generating research ideas. The results of the Cohen's k test are listed below:

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Review Jasmine * Review Nestar	7286	100.0%	0	0.0%	7286	100.0%

Review Jasmine * Review Nestar Crosstabulation

		Review Nestar					
		No Research Ideas		Research Ideas		Total	
		N	%	N	%	N	%
Review Jasmine	No Research Ideas	7121	99.9%	19	11.9%	7140	98.0%
	Research Ideas	5	0.1%	141	88.1%	146	2.0%
Total		7126	100.0%	160	100.0%	7286	100.0%

Symmetric Measures

		Value	Asymptotic Standard Error [a]	Approximate T [b]	Approximate Significance
Measure of Agreement	Kappa	.920	.016	78.606	<.001
N of Valid Cases		7286			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

As can be seen in these tables, with an N of 7286, there was agreement between the first and second author's judgement on whether the textbooks had—or failed to have—discussions regarding the topic of generating research ideas/made statements on idea creation. As indicated by the Cohen's κ test, there was in fact, a very good agreement between the two reviewers ($\kappa = 0.920$, $p < 0.001$, C.I. = 0.92 ± 0.03). This strong agreement is maintained even when considering the lower bound of the confidence interval, 0.89. The fact that the lower bound remains a strong agreement alleviate possible issues with including within the original sample some superfluous sections of the textbooks such as the index and reference section.

Appendix 5: The Seven Least Frequently Mentioned Suggestions on Research Idea Development

11). One textbook (out of 13; 7.7%) suggested asking a knowledgeable faculty member with a certain expertise for a research idea (Jhangiani et al., 2019: p. 67).

12). One textbook (out of 13; 7.7%) suggested, somewhat like that above, conversing with (bounce ideas off) another researcher who shares their general area of interest (Vallerand & Hess, 2000: p. 11).

13). One textbook (out of 13; 7.7%) suggested *reviewing the previous literature* in a general area of interest in the hope that, in a burst of inspiration, a potential research idea emerges (Smith & Davis, 2013: pp. 16, 18).

14). One textbook (out of 13; 7.7%) suggested *reviewing the previous literature* in a general area of interest, with the researcher asking a similar question to that of the singularly most interesting of all the studies reviewed (Jhangiani et al., 2019: p. 69).

15). One textbook (out of 13; 7.7%) suggested testing the validity of a commonly held societal assumption (Cozby et al., 2020: p. 18). For example, determining if birds of a feather really do flock together.

16). One textbook (out of 13; 7.7%) suggested gaining inspiration for a research idea from the more generalized classical literature (Fox & Imbeau, 1999: p. 24).

17). One textbook (out of 13; 7.7%) suggested a researcher use their initial quantitative results as a source of inspiration for new ideas (Fox & Imbeau, 1999: p. 25).