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Leave the Books on the Shelves: Library Space as Intrinsic Facilitator of the Reading Experience

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Keep the books on the shelves: Library space as intrinsic facilitator of the reading experience



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ABSTRACT

Library literature frequently reports projects to remove print collections and replace them with other amenities for patrons. This project challenges the untested assumption that the physical library itself serves no useful function to its users unless they are actively consulting books from the shelves. The alternative hypothesis is that readers benefit from the mere act of studying while in a book-filled environment.

To test this possibility, ten subjects completed SAT-style reading comprehension tests in both a traditional library environment, and a renovated chapel that strongly resembles library space except for lacking books. Results provide a reasonable basis to support an expectation that readers perform better on reading comprehension tasks performed in book-rich environments.

Introduction

Library news in recent years has been full of excited descriptions of reductions in traditional books in favor of digital alternatives (e.g., Abadi, 2019; Haq, 2012; Palfrey, 2015). To many, the transition makes easy sense: “Given that books are about ideas, stepping into the virtual economy seems logical. The object simply gets in the way” (Young, 2007). Retaining print copies is not cost-free, and budget-strapped libraries must think creatively about ways to live within their means. An additional motivation for many of these transitions is that the vacated space can then be repurposed for other functions deemed more effective at drawing in “customers” (what libraries used to call “patrons”), such as makerspaces (Osborne, 2019), group study rooms (Sanburn, 2013), or soft seating and cafés (Antolini, 2009).

Even granting the desirability of these additions to the library environment, the literature focuses its discussion on defending the need for such improvements while spending comparatively little on calculating the costs of culling the print collections. Often the print materials are spoken of in disparaging terms as constituting a “museum” or “warehouse,” giving the impression that the areas to be renovated are presently dead spaces that serve no useful purpose. The benefit of discarding the books is treated as self-evident.

This trend would not be the first time that reasonable pragmatic concerns have been pursued by minimizing dueling values. One way to visualize the tensions arose in the treatment of Leonardo da Vinci's *The Last Supper*. Although the mural was quickly recognized as a masterpiece, the friars of Santa Maria delle Grazie cut through the art to install a door to the kitchen on the other side, “amputating Christ's feet and loosening the paint and plaster with blows from their pickaxes” (King,

2012). The desire for warm suppers had resulted in damage to one of Western civilization's most iconic images. Without attempting to argue equivalency of harms, this story presents a familiar way to envision structural tensions between competing values. The practical good intentions of librarians today may be inflicting their own unintended consequences.

Like the monks' understandable concerns that prompted their actions, librarians' broad justifications for versions of the “bookless library” have often been framed in terms of the struggle of libraries to remain “relevant” in an environment crowded with digital competitors (for initial readings on the topic of the possible supersession of books by electronic substitutes, see Howard and Rastorfer (2005)). Indeed, it seems scarcely possible to write about the role of the contemporary library without recourse to that word. This worry makes sense only if one assumes that the library *qua* library has little unique value. If what the library offers is shared with other resources, whatever benefits it can claim will indeed be vulnerable to usurpation by competitor information-related technologies such as Google.

This belief, however, has no evidence to support it. It has instead been taken as an article of faith that books can be discarded and replaced with digital alternatives, freeing the space to then be used for popular amenities. No harm befalls the library from such changes, runs the argument, because the information content has remained the same. But what if libraries are not fully reducible to the information they contain?

Although contrary results can be found (e.g., Margolin, Toland, Driscoll, & Kegler, 2013; Schugar, Schugar, & Penny, 2011), the majority of studies have shown that at the level of the book the presumed interchangeability between print and digital is mistaken. Students

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appear to learn better when reading from paper sources than electronic ones (Clinton, 2019; Delgado, Vargas, Ackerman, & Salmerón, 2018; Singer & Alexander, 2017a). In her summary of the literature, Naomi Baron (2015) lists the kinds of reading that digital devices discourage:

- Reading longer texts
- Rereading
- Deep reading
- Memory of what you have read (which is often aided by handwritten annotation)
- Individual (rather than primarily social) encounters with books
- Stumble-upon possibilities
- Strong emotional involvement

While the finding that print materials offer value that is not found in electronic alternatives is of major importance, the discovery has yet to noticeably dampen the enthusiasm for replacing books with computer files. The academic publisher Pearson, for example, has adopted a stance in which it aggressively pushes students to purchase digital textbooks. Print copies will remain available under the plan, but “students will be discouraged from buying them with relatively high pricing and limited availability” (McKenzie, 2019).

These debates, however, most directly concern the question of formatting of individual titles or genres within the library. Digital reading, for example, may be adequate for light reading, or most fiction, where reading is done for pleasure and distraction; the consistent conclusion, though, is that paper better serves for serious study requiring deeper attention to detail (Baron, 2015; Lauterman & Ackerman, 2014; Singer & Alexander, 2017b). Format debates, therefore, leave unresolved the related but larger question of the merit of the library as maligned “warehouse” of legacy print collections. Without data to the contrary, in fact, it would seem odd if qualitatively different outcomes in format at the level of the book did not result in similar differences at the aggregate level of the library.

When considering the question of whether, after nostalgia has been set aside, the print volumes truly contribute nothing to the library patron, perhaps the sensible reply is that books on shelves have value, but only if they are being read. The vulnerability of bookstacks follows, it might then be reasoned, from the fact that circulation of physical materials has steeply declined in the past years, as much as 64% in some studies (Cohen, 2019). Administrators at the Indiana University of Pennsylvania expected to withdraw 170,000 books that had not circulated in twenty years, and use the space for “group study rooms and tutoring centers, ‘makerspaces’ and coffee shops” (Rubinkam, 2018). If the withdrawn titles were never being touched, what is the harm in removing them to make room for newer amenities?

Yet in his essay discussing these developments, Dan Cohen (2019) rhetorically asks

if, regardless of circulation statistics, we should keep an ample number of books in the library for their beneficial ambience. Even if books are ignored by undergraduates, maybe just having them around will indirectly contribute to learning... . If that helps students get into the right mind-set in a quiet, contemplative space, so be it.

Given the numerous and well-received instances of librarians appearing to act confidently under the opposite premise, one might be surprised to realize that the relationship suggested by Cohen—that the mere *presence* of books can improve learning generally, and reading comprehension specifically—has never been investigated. This article reports a preliminary attempt to determine whether study in book-rich environments is more productive than similar activity in environments that lack the “wallpaper” of books (a metaphor earlier introduced, according to Sherman Young (2007), by Kirkpatrick (2000)). If that effect is real, then the physical library offers a benefit that is not reducible to the information it makes available; it more closely resembles a unique

masterpiece to be preserved than a blank wall to be cut.

We have reason to think that this may indeed be the case. In a series of studies Joanna Sikora and her colleagues looked at children in homes containing what their local standards regarded as large libraries.

Growing up with almost no books is associated with literacy levels at about half a standard deviation below the mean in the pooled sample. Having had approximately 80 books in adolescent home library raises literacy levels to the average while from about 350 books onwards further growth in the library size is not associated with significant literacy gains (Sikora, Evans, & Kelley, 2019; see also Evans, Kelley, & Sikora, 2014).

Relevant for present concerns is that the researchers looked only at the number of books in the home and did not attempt to measure whether the child was actually interacting with them. While it would be a mischaracterization of this research to argue a simple cause-and-effect relationship—for example, the books may serve as a proxy measure of other economic and class-related variables that support academic success—finding that a book-rich home correlates with learning benefits opens a possibility that Cohen’s university students studying in a similarly bookish environment might enjoy the same.

Novelists, astute observers of the human condition, have noted this precise relationship. Ray Bradbury, for example, when describing how he taught himself to write, speaks about going daily to the library because he savored “brooding on the silence, enjoying the vibration that came out of the walls that were chock full of books and filled with the library life of authors who had been in love with living and creation” (Bradbury, 2009). Matthew Sullivan (2017) has one of his characters express that “Just having [books] around makes me feel smarter.” This same expectation crystalizes in an exchange between Umberto Eco and Jean-Claude Carrière when Carrière remarks that “It is very comforting to be surrounded by all the ideas in the world, all the feelings, all the knowledge and every possible wrong turning” (Eco & Carrière, 2012).

To appreciate the subtler influences of libraries, we must look past the “legion” of expressions from librarians concerning their concerns regarding their continued relevance (Fister, 2017), and focus instead on the experiences of actual users.

User experience (UX) refers to “a person’s emotions and attitudes about using a particular product, system or service” (User Experience, 2018), a line of investigation that has been applied to the experiences of patrons in the library (Priestner & Borg, 2016). The research uses a variety of methods, particularly ethnographic accounts to understand how patrons interact with the library’s physical environment. The present effort to investigate whether the library setting renders measurable benefits to the patron’s reading experience should be read as grounded in this user-centered perspective.

One place to begin the inquiry is to observe how one reacts upon entering library space. In Eco’s response to his friend he draws our attention to the ambiance of the library. Even images of significant libraries such as that of Dublin’s Trinity College can evoke a noticeable alteration in behaviors, akin to those upon entering sacred spaces such as a church or mosque. The similarity is not accidental; literature, primarily from architecture, speaks about the deliberate attempt to design library spaces that echo the cathedral-type atmosphere. Buildings we erect to house our libraries aim deliberately to inspire what Rudolf Otto (1958) termed an experience of the numinous.

Accordingly, Thomas Augst (2008) points to the “‘ecclesiastic architecture’ of libraries” and their role as “‘secular cathedrals’ of liberal society.” Libraries, in other words, pass as close as anything in our secular society to public sacred spaces (Battles, 2003; Kelman, 2001; Latham, 2009; Powell, 1958). As expressed in a television historical on the development of writing and libraries, “The often palatial extravagance surrounding books and the code of silence inside suggests that books are sacrosanct the world over” (Origins, 2015). To some, this communion merits overt recognition: “If prayer is connection to the past, that form of sacred communion is exactly what one does in a

library Simply standing quietly amid the grandeur can be an act of devotion" (Maxwell, 2006). Again from Matthew Sullivan (2017):

The way most people browse, it's as if they've stepped into a temple or church. This is not riffling through hangers on the clearance rack or tossing canned corn into the cart. No, this is *browsing*. It even sounds drowsy: to *browse*. Heart rates slow. Time disappears. Serious people turn into dreamers again.

The arches and enormous dome of the Library of Congress Reading Room, for example, add nothing to the practical acts of reading, or to the utilitarian functions of book storage, but are instead intended to elicit a mindset appropriate for interaction with books. If the shelving of books and provision of reading surfaces were the primary goals, it is unlikely the building would have taken the form it did, with a lofty interior and wide-open spaces. Nor are these features of the library's physical presence attributable to mere decoration or effete aesthetics. They are instead intended to communicate a worldview. All Carnegie libraries, we are told, "shared a prominent main entrance, usually accessed by steps (to give the visitor the sense of elevating himself)" (Hastings & Shipman, 2009).

If we take seriously the reports of the felt experiences by library users while within the building, we must entertain the possibility that library space evokes a special and deferential response from the patron, one not easily found elsewhere and which perhaps uniquely facilitates the interaction between user and text.

Persons become habituated to behaving a certain way in the grander versions of these structures, and then respond similarly even when they encounter analogous spaces lacking the obvious echoes of sacred buildings. Whether entering the grand Reading Room of the Library of Congress, or the mall branch of the local library, people reflexively become calmer, speak in lower tones, and otherwise adopt mannerisms distinguishable from the ordinary, the profane reality. "Somehow, just being in the library refreshes the soul, imbuing one with an elusive sense of the sublime" (Maxwell, 2006). Interestingly, Maxwell suggests that "it may be the lack of food and drink in the library that contributes to its feeling of sanctity." If true, the addition of cafes to libraries may have the unintended consequence of reducing them more to bookstores than their traditional status akin to churches. In sum, however, such design-induced states of reduced tension are similar to that which the experimental literature from the psychology of reading has shown to improve comprehension and retention (DeMers, 1996; Helton & Garland, 2006; Rentel, Corson, & Dunn, 1985; Zenker & Frey, 1985).

The likelihood of a positive impact upon learning within a book-filled physical library is thus overdetermined. Should this relationship prove reliable, the implications for library planners would be urgent. Far from libraries being mere warehouses, it is the envelopment in a space full of books that primes the reader to productively engage with the texts. Reading the same content in more generic settings arguably results in weaker retention and comprehension.

Librarians should be aware of this possibility before they empty their shelves. The "bookless library" may be useful as community center or study hall, but in the present light it remains an open question whether it truly warrants recognition as a "library" (Donovan, 2012). Even when such bookless organizations make available the same information through alternative sources, the changes to the physical environment may offer the patron a degraded environment in which to absorb and comprehend that content.

To test the hypothesis that reading comprehension is uniquely enhanced by presence in a book-rich library environment, the following experiment has been designed.

Methodology

This project challenges the untested assumption that the physical library itself serves no useful function to users unless they are actively consulting books from the shelves. It considers an alternative account

that readers benefit from the simple act of studying while immersed in a book-rich environment.

Subjects

After the project design received approval from IRB, ten volunteers were solicited through acquaintance networks. Subject ages spanned from 17 to 54. They were paid a ten-dollar gift card for each of two test sessions. Each session required from 1.5 to two hours; session lengths did not vary by question set. The small N is attributable in part to the fact that the suitable non-library space was only temporarily controlled by the author's college; loss of that control prevented expanding the number of subjects.

Measures and procedure

After agreeing to participate, each volunteer received a pretest packet containing a consent form and two instruments. The first was a questionnaire constructed for the experiment that addressed demographic information, prior reading experiences, and familiarity with meditation and relaxation techniques. The second instrument was the twenty-one question *Short Suggestibility Scale* (SSS) (Kotov, Bellman, Watson, & D., 2004). The intention of including this scale was to provide a means to determine if subjects with higher suggestibility proved more responsive to environments designed to elicit receptive states of mind (e.g., Krippner, 1963).

Two reading comprehension tests were constructed from SAT-style questions publicly available at majortests.com. Set 1 consisted of seventy questions relating to twenty-one passages; Set 2 offered sixty-one questions concerning eight passages. For direct comparison between the exercise sets of unequal length, analyses were based on the percentage of correct responses.

During each session multiple physiological measures were obtained.

1. At the start of each session, subject blood pressure and pulse were recorded using a Care Touch wrist cuff monitor.
2. Subjects read for fifteen minutes material of their own choosing that they brought with them, after which blood pressure and pulse were again recorded.
3. After completion of the reading comprehension question set, blood pressure and pulse were recorded a last time.
4. Each session concluded with the subject performing a five-minute meditation exercise wearing a MUSE (SCR_014418) headband. The MUSE headband is a portable EEG system capable of generating calm scores to quantify the subject's state of mental relaxation (e.g., Bhayee et al., 2016; Kovacevic, Ritter, Tays, Moreno, & McIntosh, 2015; Krigolson, Williams, Norton, Hassall, & Colino, 2017). Although MUSE, when used in combination with MUSE Direct, can report more complex measures that graph EEG readings into brainwave types, for this preliminary study only two scores from the basic app were captured, the MUSE score, and the total time in seconds that the headband recorded the subject to be calm.

Environment

All subjects completed a session in each of two settings, a traditional library environment (Fig. 1), and a renovated chapel that strongly resembles traditional library space except for lacking books (Fig. 2).

As the images reveal, the presence/absence of books is not the only difference between the two environments, but it is the one of primary experimental interest. Other differences lacked a theoretical basis on which to anticipate a consistent influence on reading comprehension. For example, although the carpeted library area may have been expected to be less noisy than the non-library space, sound level readings taken during the sessions—typically during the MUSE meditation exercise—did not reveal any consistent auditory differences.



Fig. 1. Library space (special collection reading room).

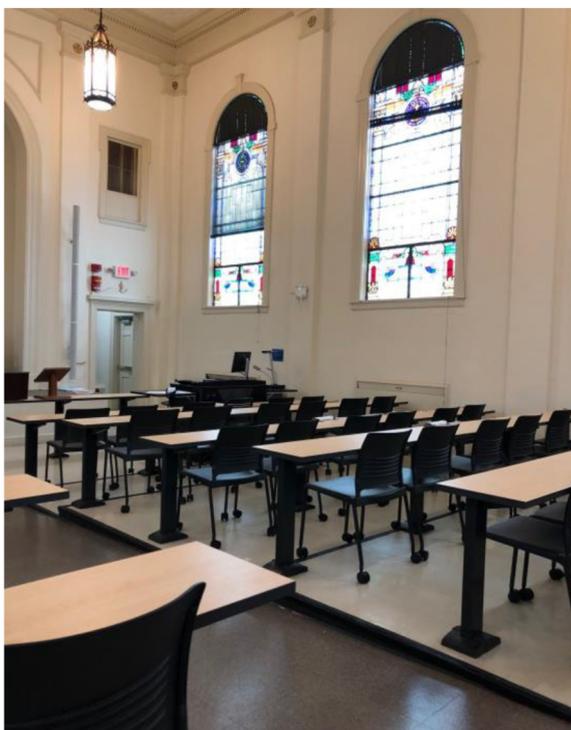


Fig. 2. Non-library space (converted chapel).

Results

Project design

In order to control for exposure order effects, subjects were divided into two groups. The first responded to Set 1 first, while the second group saw Set 2 during its first session. Each group was further divided into two subgroups, with one half responding first in the library

environment, and the other initially reporting to the non-library space.

Four comparisons reported in Table 1 were conducted with SPSS to test whether performance differences could be explained by the order in which conditions were encountered.

Order of exposure approaches, but does not become significant, only on the data from Exercise Set 1 ($H_{0(3)}$). While room for improvement exists on this instrument, the overall results warrant eliminating order effects as an interfering interpretive variable.

Main effect

The primary analysis asks whether the same subject performed better on a reading comprehension task in a library setting than in an environment that is similarly quiet and studious, but lacks books.

$H_{0(5)}$ = Within subjects, library exercise scores will not differ significantly from non-library exercises scores

A paired sample *t*-test was conducted to compare the percent of correct exercise scores between the library and non-library environments. There was a marginal significant difference in scores between library ($\mu_1 = 53.2590$, $SD = 11.59292$) and non-library ($\mu_2 = 49.3150$, $SD = 14.30009$) environments, with a 1-tailed test of significance = 0.105. The magnitude of the difference of the means ($\mu\Delta = 3.94400$, $CI = -1.10905, 9.29705$) is large (Cohen's $d = 0.917564$).

We are able to reject the null hypothesis at a conservative 0.1 level of significance. Although this outcome is higher than the conventional 0.05 (95%) confidence level, in the context of this exploratory study using a small sample the result is nontrivial. It supports an expectation that subjects will perform better in the library than they will in an alternative but similar setting.

Explanatory variables

Although the small number of subjects limits the extent to which further inferential analyses can be meaningfully employed, review of patterns at the descriptive level can point to useful directions for future study. Accordingly, the project design included a variety of measures whose purpose was to explore possible proximate mechanisms to account for the main effect. The choice of these additional variables grew out of descriptions of libraries having a calming and relaxing effect on the patron, and that such a relaxed state of mind facilitates comprehension and creative thinking.

Comparison of the initial and post-read values in Table 2 supports a broad conclusion that reading is itself a calming exercise. Although the environments do not reveal a consistent differential impact on this physical and mental measure, suggestive clues can be found. For example, the amount of change between the initial systolic and post-read systolic was greater in the library than in the non-library setting (11.1 vs. 9.8, respectively), as was the average drop in pulse rate (4.3 vs. 2.5). Both of the MUSE measures, however, were in the opposite direction from predictions. Taken together, these data indicate that while something of interest appears to be happening, the operationalized relaxation measures failed to capture the underlying mechanisms.

More insight was had when subjects are sorted into high susceptibility ($N = 6$, SSS score range = 47–58) and low susceptibility ($N = 4$, SSS score range = 23–37). Scores for the high susceptibility subjects improved as predicted, while for the lower group they barely changed at all (Table 3).

Although suggestibility and relaxation are overlapping variables (Polczyk, Frey, & Szpitalak, 2013; Rickard, Crist, & Barker, 1985), they are not equivalent. The better performance for suggestibility than was found for relaxation fits with a series of articles by John Lacey, which showed that while pleasant attention to external stimuli results in deceleration of heart rate (i.e., what we would characterize as relaxation), mental work such as doing arithmetic in one's head, reverse spelling tasks, and sentence completion challenges, caused heart rate to increase

Table 1
Tests of project design order effects.

	Mean/SD	2-tailed test of significance
$H_{0(1)}$ = Exercise scores in the library space will not significantly differ from Session 1 to Session 2	$\mu_1 = 51.429, SD = 4.866$ $\mu_2 = 53.771, SD = 11.322$	0.747
$H_{0(2)}$ = Exercise scores in the non-library space will not significantly differ from Session 1 to Session 2	$\mu_1 = 44.857, SD = 16.800$ $\mu_2 = 55.082, SD = 13.247$	0.316
$H_{0(3)}$ = Scores for Exercise Set 1 will not significantly differ from Session 1 to Session 2	$\mu_1 = 53.5714, SD = 14.94889$ $\mu_2 = 40.0000, SD = 7.09508$	0.094
$H_{0(4)}$ = Scores for Exercise Set 2 will not significantly differ from Session 1 to Session 2	$\mu_1 = 52.0492, SD = 3.37959$ $\mu_2 = 56.0109, SD = 15.14657$	0.627

Table 2
Average scores (N = 10) for relaxation variables.

	Library	Non-Library
Initial Systolic	126.4	132
Initial Diastolic	77.3	78.8
Initial Pulse	83.8	80.4
Post-Read Systolic	115.3	122.2
Post-Read Diastolic	74.2	72.5
Post-Read Pulse	79.5	77.9
Post-Exercise Systolic	121.3	121.3
Post-Exercise Diastolic	79.9	69.9
Post-Exercise Pulse	73.9	76.5
MUSE	443.8	502.8
Time Calm (secs)	69.6	116.9

Table 3
Exercise scores by suggestibility group.

	Library	Non-Library
Exercise scores		
High Suggestibility	50.68	43.31
Low Suggestibility	57.12	58.33

(Lacey, 1959; Lacey, 1967; Lacey, Kagan, Lacey, & Moss, 1963). Because these types of tasks require the subject to exclude distracting environmental stimuli, one would expect them to be better accomplished by those who score higher on suggestibility scales such as the SSS.

This alternative hypothesis could therefore account for both the failure of a consistent relaxation pattern to emerge in the present data, and for the evidence in Table 3 that those with high suggestibility performed as predicted. That the high suggestible subjects scored better in the library would indicate that libraries are better designed than even closely similar environments to assist readers to exclude distracting external stimuli so as to facilitate active mental work.

To further speculate, the comparison with the non-library space indicates that it is not simply study in a quiet place that achieves the outcome of interest. Silence is a necessary but not sufficient external condition. We find here a basis to describe why coffee shops and cafés cannot substitute for libraries. Such spaces may maximize student relaxation, but relaxation alone is not enough to improve learning. For optimal results physical relaxation from time spent in a quiet environment must be coupled with improvements in the reader's mental receptivity.

Carriere's words about being "surrounded by all the ideas in the world, all the feelings, all the knowledge and every possible wrong turning," are provocative in this regard. The relevant change may perhaps be characterized as a muffling of the reader's internal dialogue sufficient to attend to a different voice, the author's, for extended engagement. It is this ability that is tied to the altered frame of mind captured by the concept of suggestibility, and which it is hypothesized that the library is specially designed to encourage.

Future projects should therefore build upon suggestibility as the

proximate mechanism for the main effect, rather than relaxation.

Discussion

This study, even conceding its limitations, offers the first empirical data on the question of whether library environments, merely by the presence of books on the shelves, provide a discernible benefit to library patrons. Although librarians appear to behave as though the opposite is known to be true, these results provide a reasonable basis to expect that readers will perform better on reading comprehension tasks performed in book-rich environments. Contrary to predictions that physical and mental relaxation could adequately account for these observations, the more likely explanation may be that book-filled libraries provide environments uniquely efficient in aiding the exclusion of distractions, thereby allowing for better engagement with texts and the comprehension and retention of complex material.

Future studies should address additional variables that may impact the main effect. Given that writings, the books that contain them, and libraries that collect books, are all cultural artifacts, the luminous impact of libraries, whether such be literal or analogical, is necessarily also a cultural feature. Reaction to cultural institutions may therefore be a function of other variables, such as age.

Today's older people arguably had qualitatively different formative experiences that forged for them an enduring appreciation and receptiveness to libraries with print collections. Such relationships with the book by many measures appear to be weakening in recent decades, suggesting that the respectful attachment experienced by earlier generations should not be taken for granted among younger persons. Those raised in the context of the "bookless library" cannot be assumed to have acquired a similar visceral reaction to immersion in bookstacks.

In addition to this historical explanation for possible age differences, developmental accounts should also be considered. The impact of the physical library may be a state of mind users acquire as they mature due to changing needs and cumulative interactions. An interacting variable in this regard would be educational differences. Susceptibility to the cultural impact of libraries may be a function of the degree to which a person has had a marked need over time to do the kind of deep reading that libraries facilitate.

New project designs that explicitly sample participants of diverse ages as well as varying experiences with libraries and reading during formative years should be more successful in teasing out age-related impacts on the main effect.

Conclusion

The monks had a practical wish to have hot meals; the question we can today wish they had asked themselves was whether satisfying this short-term desire warranted permanent damage to a cultural icon. Similarly, we should ask whether the reasonable need for cafes and group study rooms in libraries should be pursued at the cost of impairing an irreplaceable social institution.

Although the project's small sample limits the firm conclusions that can be offered, the data appear to speak against librarians who

advocate projects to remove physical books for no better reason than that the collections serve no useful function in today's digital society. Good managers must yield to practical necessities such as reduced funding and instructions from boards. Such requirements, however, do not make an action a virtue that should be pursued absent exigent circumstances, or extolled in our professional literature as models to emulate.

A sui generis institution, libraries are more than aggregates of individual books and their information contents (Donovan, 2009, 2012). They offer emergent benefits irreducible to the sum of their information in whatever format. We see a hint of this in the shock when libraries are destroyed, even when the contents within are not unique and easily found elsewhere. It is the loss of the library, not the information, that is mourned. This paper has briefly examined one such emergent benefit: libraries, by their natures as book-rich environments, prime the patron for deeper engagement with texts, especially of a challenging quality.

If additional data substantiates the relationship investigated here, we would be compelled to consider how this fact should shape the future of libraries. For the short term, perhaps, at least until we are certain that we are incurring no damage, librarians should be more humble about eliminating their legacy collections and emptying their shelves of "wallpaper" tomes.

Examples of attempts to strike a reasonable balance between print and digital formats can be found in Watson (2018) and Wilders (2017). Certainly as a profession we should scale back the evangelism about discarding physical books. Otherwise, worried to prove their continued relevance, librarians may inadvertently deconstruct the very institution that affords them the unique role in cultural life they instinctively strive to preserve. With the best of intentions they risk inflicting an irreparable harm upon not only the collections they hold in trust, but more importantly upon the patrons who expect them to provide an environment conducive to study and learning.

Author statement

The author is responsible for all parts of the manuscript.

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