INVITED ARTICLE

Towards Interdisciplinary: Juggling Similarities and Differences

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Abstract: This (ashamedly) autobiographical account of my research career describes my journey from psychology to what might be described as psychotypography. A key aspect of the narrative is the means by which I sought to integrate into a design environment. I explore the notion of interdisciplinary research, an important feature of this journal, reflecting much of the current landscape of design education, research, and practice. The juggling of similarities and differences occurs at the level of disciplines and as part of my research methods. A common thread through most of the research is evaluating how people respond to visual material, to create findings that can be used in design practice and education. Broader implications are that many factors, within and outside our control, determine the course of research.

Keywords: design discipline; design research; interdisciplinary research; psychology; psychotypography; typographic design

1. Introduction

In reflecting on the research I have done under the broad umbrella of visual communication, I felt in need of a framework for organizing my thoughts. The one that came to mind was the 5W+H questions: why, when, who, what, where and how?* These

* I possibly chose this as I have used 4W+H questions in a 2017 chapter on information design research methods but I also like reading crime fiction and detectives are said to use this framework.

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questions provide a helpful context for understanding what can determine the research direction. The research outputs fall under "what" and are influenced by the other questions which overlap and interconnect, visualized in Figure 1. To summarize:

When:

- Early career, established career, or retired affected what I researched and who I worked with.
- The technology that was current at the time facilitated opportunities for research.

Who:

- Employing research assistants, through gaining funding, enabled empirical research.
- Collaborating with other researchers, when I was more established, allowed the crossing of discipline boundaries.

Where (interpreted as where the research was conducted and where it was published):

- The research environment created by my university and department provided direction on what to research.
- Choice of journals and conferences was determined by what I researched and my collaborators.
- Invitations to write chapters or give talks emerged when more established.

How (interpreted as how research was made possible and how it was carried out):

- Funding sometimes determined what is researched.
- Research methods that I used influenced where I published.

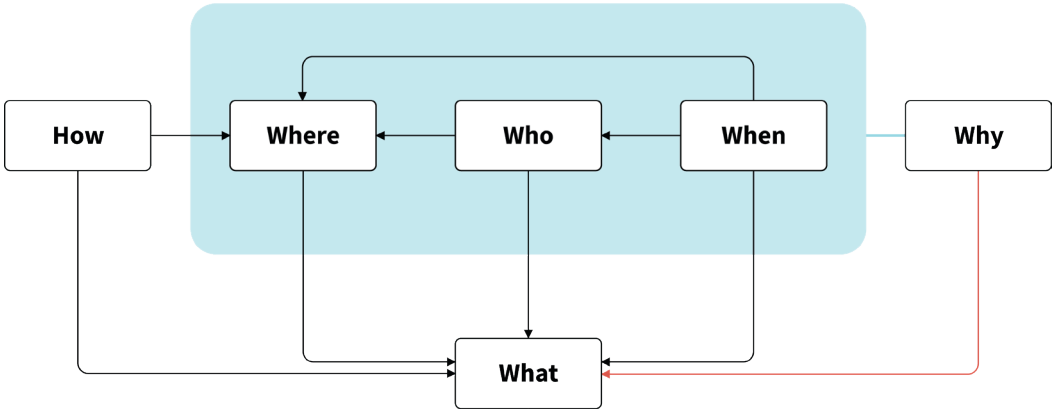

Figure 1. How the different questions relate to each other. "When," "who," and "where" (circled in blue) contribute to "why," as external factors; there is a direct link from "why" to "what" (red line) indicating my proposed motivations.

The 5W+H questions are answered in more detail within each of the themes described below. Some of the "when," "who," and "where" address "why" I did "what" I did. These are generic, external factors which would apply to anyone doing research in a university. In psychological terms, I appear to be describing the course of my research as directed by circumstances outside of my control, attributing the outcomes to situational factors.* Another way of answering the question "why," which enables me to take back some control, explores my personal motivations and ascribes the research journey to my disposition, rather than external circumstances. Both routes from "why" to "what" will be explored though there may be a bias towards my underlying motivations. I will start with unpacking the title of this paper.

1.1. Towards Interdisciplinary

I joined the Department of Typography & Graphic Communication at the University of Reading as a Lecturer in Electronic Publishing. With an education and training in experimental psychology, I needed to work out what was involved in visual/graphic communication, graphic design, typography. I began to perceive a large gap between psychologists' research interests and approaches and what designers consider important.

When I look back at my early attempts to integrate into a design environment, I am aided by some more recent reflections which drew on a report on *Facilitating Interdisciplinary Research* (2005) by the Institute of Medicine. This distinguishes among:

- Borrowing: use of one discipline's skills in another discipline.
- Multidisciplinary: separate contribution from each discipline.
- Interdisciplinary: integration and synthesis of ideas and methods.

Based on these distinctions, I deduce that I engaged in all three types of research. It is unsurprising that I was drawn to *Visible Language* with its emphasis on interdisciplinary thinking and relationships, which started with the objective of encouraging "scientific investigation of our alphabetic and related symbols" (Wrolstad, 1967, p. 3).

A theme that is repeated in various aspects of my research is interfacing disciplines. This has covered working with different groups of people — computer scientists, graphic artists, typographers, a museum keeper, an education assistant, and a learning technologist. I have also tried to address this explicitly by, for example, putting forward arguments for involving typographers in the design of human computer interfaces and exploring the contribution of information design to effective e-learning.

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* I am referring to attribution theory, developed within social psychology, a theory about how people "answer questions beginning with 'why?'" (Kelley, 1973, p. 107).

Figure 2. Word cloud based on 55 titles of written publications or conference presentations. Larger type size indicates higher frequency of use of that word.

1.2. Similarities and Differences

My research methods exploit similarities and differences. I prefer to do experimental studies measuring participants' performance whenever feasible, and these look for differences.* These comparisons are typically of variations in the test material but might also be between user groups.

Other methods I use include evaluating, analyzing, categorizing, and developing frameworks which involve the organization of ideas and looking for similarities and differences. When I conduct a literature review of empirical studies, I compare and contrast the methods used by the researchers and their results.

Given my methodological bias towards conducting experiments, I have also pointed out the limitations of guidelines that are not based on empirical research and are often derived from studies of paper-based materials and then applied to screen. This critique extended to craft knowledge gained from practical design experience of print, thereby drawing attention to the differences between psychological methods and design practice. I hope that I remedied this situation when I approached interdisciplinarity. Clearly, my integration was not seamless and included moving from pointing out differences between psychology and design to bridging the gap and looking for commonalities.†

* In scientific research we try to reject or disprove the null hypothesis by finding evidence to support an alternative hypothesis. If we find no differences, this might be because our method is not sufficiently sensitive to detect differences, so similarities are generally not informative.

† This gap between scientific research and design has also been discussed by designers (e.g., Bessemans, 2019).

Figure 3. Word cloud combining six titles, three of which are conference presentations. All raise questions or introduce a point of view related to crossing disciplines.

2. Themes

I have grouped my research into themes, which were not necessarily identified at the time but where I can now detect similarities. A word cloud* of titles of the publications and presentations hints at the grouping of themes but suggests my titles may not be sufficiently informative (Figure 2). However, I have persisted with this approach and generated word clouds within each theme.

Some of the studies belong in more than one theme through addressing two research questions. Other papers fit within one of the broad headings attached to the themes, but may not link with others, i.e., no neat progression of ideas within a theme. For example, the content of a conference paper may be inspired by the conference theme and should (at least marginally) be interesting for a live audience. Some of my reflections on cross-disciplinary issues come from conferences (Figure 3).

The order of themes is not strictly chronological as some themes include research conducted at discrete points in time and spread over some years, therefore overlapping with other themes (Figure 4). However, the order still reflects my career development and a move towards interdisciplinarity.

The themes are:

- Educational research in electronic media
- Human-computer interaction and interface design
- Legibility
- Fonts and reading

* Word clouds are visual representations of the frequency of words in a written text. They omit the function words. I created the word clouds in this paper using https://www.wordclouds.co.uk/.

- Legibility revisited | disfluency
- Characterizing perceptual expertise of designers

A brief description of some of the work within each theme follows, drawing on the framework of 5W+H questions.

2.1. Educational Research in Electronic Media

Shortly after I began teaching electronic publishing, the Apple Macintosh was launched and desktop publishing emerged in 1985. The term electronic publishing has come to mean publishing in a digital format, but its scope was rather broader in 1988 when the journal *Electronic Publishing – Origination, Dissemination and Design* (EPODD) was started. In keeping with this wider scope, I regarded digital typography as synonymous with electronic publishing and desktop publishing as a subset.

I was part of a team working on a funded project (DIDOT: Digitising and Designing of Type) which aimed to design, implement and evaluate a curriculum for digital typography for both computer-oriented specialists and graphic artists and typographers. This might be considered a generic curriculum, exploiting similarities, whilst also recognizing the need for interpreting the teaching material according to the orientation of the particular discipline (i.e., differentiation). The team naturally included representatives of these disciplines, although I did not fit easily into any of these fields. The approach was multidisciplinary, though some integration of ideas and methods occurred.

The release of HyperCard in 1987, a hypermedia system predating the WWW, enabled me to explore how students might be provided with alternative structures for organizing their knowledge of electronic publishing. I created a HyperCard based on my theory

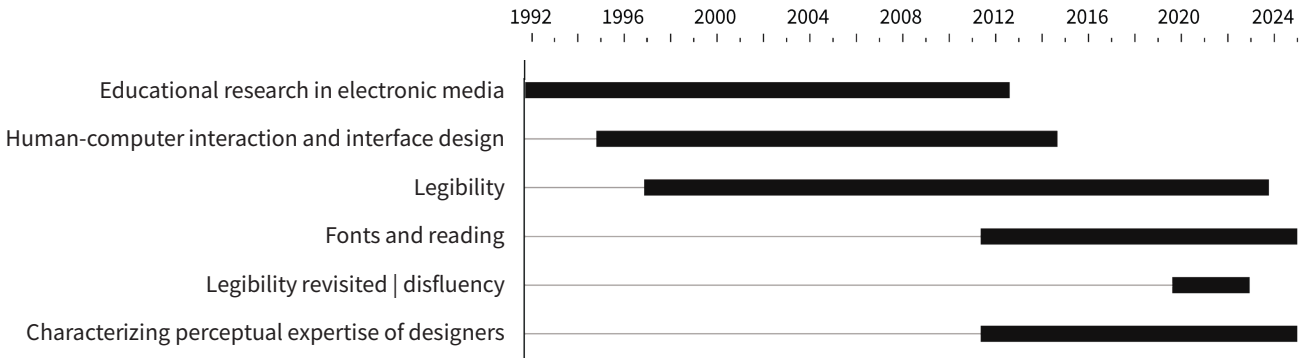

Figure 4. A Gantt chart illustrating the timespan and overlapping of themes.

Figure 5. Word cloud based on titles of eight articles and indicating my preference for exploring topics, perhaps due to an unfamiliarity with the areas. For this and subsequent word clouds (Figures 5–10), the reference sources are listed as appendices (Sections 5.1–5.6, respectively).

of electronic publishing lecture course.* This work is tied to the technology and user knowledge of the time and has little relevance to current practices but may have some theoretical value.

This denotes the beginning of my personal interest in interfacing disciplines, in this case, typography and computer science, and looking at the interaction between design and software. Some ten years later, virtual learning environments (VLEs) were topical, prompting my brief return to educational research through publishing with a PhD student and working with a learning technologist and a design researcher on a project evaluating a VLE (Blackboard) from students' perspectives.

The research topics are shown in Figure 5, which represents the titles of publications in journals or conference proceedings, some of which had a rather narrow focus (e.g., *Computers in Art and Design Education*). Some of the more recent work may have a minor legacy, for example, in providing guidance on "how to assess remote learning outcomes in virtual educational settings" (Fulcher et al., 2020, p. 951).

2.2. Human-Computer Interaction and Interface Design

This research field is an obvious candidate for interfacing disciplines under the umbrella of electronic publishing, as HCI is situated at the intersection of various disciplines which include psychology and design. However, there is little coherence in my topics as I approached this research area through different applications and from different angles, primarily determined by funded research projects. One project

* The most memorable feedback from students at the time was that they would prefer a printed artifact.

covered a possible graphical interface to a symbol database; two separate projects looked at computer-based systems in museums.

In the symbol research, the technology of the time (1992–1997) constrained the means of retrieving symbols based on the image, although neural networks were proposed for image retrieval (e.g., Rickman & Stonham, 1993). I worked with another psychologist as my research assistant and our approach was to involve students in Typography & Graphic Communication to sort, describe, and draw symbols to generate a classification system which formed the basis for a prototype interface to a symbol database. We published in a computing journal with an HCI angle.

The museum interface projects were both primarily evaluations of existing systems, but the projects were unrelated and involved different research teams. The first developed a framework for describing multimedia in museums which was published in the second issue of a new journal "set up in 1995 to address the creative, social, political and pedagogical issues raised by the advent of new media technologies" (Convergence, n.d.).

The second project conducted preparatory research evaluating web sites which provided access to museum collections. This was part of a larger project to make collections accessible through the WWW and required a range of skills and expertise. We considered this most suitable for a journal committed to research, analysis, and commentary on developments in museum practice. I also chose to highlight the interfacing of disciplines, describing the multidisciplinary team including the museum keeper, computer scientist, education assistant, content developer, and cataloger.

Two conference papers relate to interfaces but have no obvious relationship with the projects described above, although they may have informed my thinking. I proposed a simple framework for organizing empirical literature on navigation, divided into navigation strategies, structures, and tools. This slotted into an Information Design conference. Some ten years later, prompted by a masters student's interest and my personal frustration with inconsistent interfaces, we examined the interfaces to e-journal articles. Through an online survey, we were able to compare users' expectations of where standard features would be located and the observed locations. We were looking for differences and found them. This was a more mainstream conference for HCI: Design, User Experience and Usability (DUXU).

The Figure 6 word cloud highlights the more obvious terms within the theme, interfaces and users, whilst indicating that museum research played a significant role.

Figure 6. Based on the titles of six articles illustrating the emphasis on users and interfaces, and the museum context.

2.3. Legibility

In the twentieth century, legibility was researched from many different perspectives, for example: physicists (Luckiesh & Moss, 1942); a visual artist and a travel writer (Legros & Grant, 1916); a book artist (Zachrisson, 1965); and a graphic designer (Spencer, 1968). But the psychologist, Miles A. Tinker, was "the foremost American legibility researcher in the first half of the 20th century" (Bigelow, 2016, p. 167). This would therefore be another of the more obvious topics of research for a psychologist wishing to integrate into a typographic environment. There was also a good example set by the collaboration between psychologist James Hartley and typographer Peter Burnhill, conducting experimental studies of, for example, unjustified text (Hartley & Burnhill, 1971).

My route into legibility came through two research grants from Microsoft Corporation starting in the mid-1990s, which funded a series of experiments exploring the effect of typographic variables on reading from screen. Legibility of print (in particular, continuous text) had been sufficiently researched to provide guidance for designers. My previous experience with electronic media was helpful. At that time, research tended to compare reading from screen and paper (reviewed by Dillon, 1992). I chose not to look at fonts for screen display,* instead investigating text layout (line length and number of columns) and the mechanics of reading on screen (described as paging and scrolling). I sometimes expressed these variables as elements of interface design to fit within information science.

One outcome of our experiments was surprising and did not fit with print legibility findings and my typographic colleagues' practice of designing for print: there was an

* This was researched by Dan Boyarski, also funded by Microsoft Corporation (Boyarski et al., 1998).

Figure 7. Based on the titles of 11 publications, the focus of the research is quite clear.

indication that people can read a long line of 100 characters in a relatively efficient way, compared with very short lines. Importantly, a close colleague pointed out that they would not set continuous text in the way I had "designed" the test material.* If longer line lengths are used, additional space is inserted between lines. But I had deliberately not changed the interlinear spacing with different line lengths. I believe this prompted me to make explicit the differences between the disciplines. I found it difficult to reconcile my approach to experimental design with typographic practices.

I adopted a more constructive approach much later when Sofie Beier, a typeface designer, spent six months as a visiting researcher in the Department of Typography & Graphic Communication (October 2012 – April 2013). We were able to reconcile the conflicting demands of the two disciplines through Beier's work designing typefaces specifically for experiments. This led to joint publications and conference presentations describing our studies — multidisciplinary or perhaps even interdisciplinary research. Our research area also expanded, suggesting a more generic theme of fonts in reading.

A greater number of publications contribute to this theme and emphasize the main direction of my research (Figure 7). These spanned journals focused on computer-based applications, human-centered information technology, empirical research in reading, and visual communication.

2.4. Fonts and Reading

My primary aim within this theme was to clarify how readers deal with different fonts when reading (Figure 8). It is curious that I converted to investigating fonts as I was

* The scare quotes, signaling irony, are my addition and did not come from my colleague.

Figure 8. Based on the titles of 11 articles or conference presentations, a greater diversity of topics emerges and the overlap with the later theme incorporating expertise is apparent.

determined not to do so when starting to research screen legibility. A significant and very positive influence on my work came from Kevin Larson, a Principal Researcher on Microsoft's Advanced Reading Technologies team, a multidisciplinary team. His paper on the science of word recognition (Larson, 2005) made sense to me as he wrote from the perspective of a reading psychologist, yet appeared comfortable in the realm of typography.

A skilled reader can recognize most letters quickly regardless of the visual form, which can mean the font, case, or style of handwriting. Despite these differences in the visual forms of the same letter, readers can easily identify letters, recognizing them as representing the same character. The visual system creates abstract letter identities (Grainger et al., 2008). From differences in visual details, we look for similarities.

Having recognized that font information is generally ignored in psychologists' theories of letter and word recognition, I found and further explored research on a "font-regularity effect," originally demonstrated by Sanocki (1987). This describes our ability to recognize a sequence of letters faster if they are all in the same font, rather than different fonts — "font tuning." The effect was modeled and investigated through perceptual experiments in Sanocki (1987, 1988) and followed up by Gauthier et al. (2006) and Walker (2008), providing me with a topic that straddled disciplines.

In writing about font tuning, my objective was to engage with the two distinct readerships of typographic/graphic designers and reading researchers. I was, eventually, successful in publishing in a psychology journal, whose scope covers research in sensory processes, perception, attention, and psychophysics. However, I would not have achieved this without the help of the psychologist Thomas Sanocki. This collaboration positioned me in the design field, contrasting with Sanocki's theoretical and scientific expertise. Had I integrated too fully into my typographic environment? As

it was not very easy to prepare the research for acceptance by *The Design Journal*, I do not think I was fully integrated. There I aimed "to reconcile psychologists' and designers' approaches where possible, or identify differences that may enrich our understanding of how we read and how we may design letters to facilitate reading" (Dyson, 2013, p. 282).

By collaborating with a colleague, bilingual typographer Keith Tam, we were able to extend the study of font tuning to explore whether designers can perceive the stylistic regularity in a font when they cannot read the (Chinese) characters. Using the Chinese script, an ideographic system, was my first and only departure from a Latin-centric perspective, which I could not have attempted without someone with expert knowledge of the script. We found that design expertise does appear to facilitate the abstraction of the character shapes from the stylistic variations. Evidence of designers' perceptual abilities was accumulating (see the theme "characterizing perceptual expertise of designers" below).

The study of Chinese and Latin characters also addressed whether character processing is special, asking whether expert readers perceive letters in a different manner from shapes. I have been able to continue researching this topic, and others, collaborating with David Březina, a typeface designer and researcher. I have drawn on examples of research into areas of perception, both visual and auditory, which suggest how we might investigate visual forms. Březina has interpreted these theoretical notions and applied them to letterforms, developing online studies to test our hypotheses, a truly interdisciplinary perspective. These include asking whether the representation of a word in memory includes the font styling and whether we process letters holistically, meaning that we attend to all parts of a letter at the same time.

2.5. Legibility Revisited | Disfluency

In the midst of working on fonts and reading — and believing that I had moved on from legibility research — I was alerted to a study by Diemand-Yauman et al. (2011).* This presented empirical evidence for better recall of hard-to-read (disfluent) materials compared with easy-to-read (fluent) materials. This was followed some years later by the creation of a new font Sans Forgetica by Stephen Banham, which is intended to boost memory by being more difficult to read, though a "desirable difficulty" (The Guardian, 2018). Figure 9 illustrates the key terms emerging from articles stemming from conference presentations.

* The journal article was available online in 2010 and picked up by various media outlets, e.g., BBC News (22 October 2010). *Making things hard to read 'can boost learning.'* Retrieved 3 January 2025, from https://www.bbc.co.uk/news/world-11573666.

Figure 9. Based on five items, the disfluency theme is obvious.

I responded to these developments by searching for a flaw in the design of studies which supported better memory for harder-to-read fonts,* a conclusion that many of us would consider to be counterintuitive. This seems to be an example of my disconfirmation bias where "individuals will dismiss and discount empirical evidence that contradicts their initial views" (Lord et al., 1979, p. 2099). But how could I stand back when the tenets of legibility research and practice were being challenged? Of note was that there was seldom any reference to user-centered design or legibility research in the reports of disfluency experiments, the studies generally conducted by cognitive psychologists and educationalists.

However, the best way to challenge such results is to provide counter evidence. Teaming up with David Březina, we conducted our own experiment comparing Sans Forgetica and Arial. We found that Sans Forgetica is considered harder to read and slows down reading, but there is no difference in memory between the two fonts.

I also reviewed the literature on disfluency, and the various theoretical explanations, helpfully synthesized in a PhD thesis by Geller (2017). My underlying motive was to move the focus from a metacognitive effect to a perceptual effect, which I believe underlies legibility. The metacognitive explanation posits that the reader recognizes the word, perceives the word to be difficult to read, puts more effort into processing the word, and therefore remembers the word. This seems to ignore the perceptual process of letter and word recognition. A simple reason for the different explanations is that cognitive psychologists with a background in memory, reasoning, and other

* I was not alone in this as an apparent difficulty in replicating results prompted the publication of a special issue of the journal *Metacognition and Learning* (2016) exploring why the results might not be replicated.

higher-level processes will be more likely to focus on comprehension. Those with a background in perception research are more likely to focus on word recognition. I am in the second group. Differences clearly exist within disciplines, as well as between, especially in one as broad as psychology.

2.6. Characterizing Perceptual Expertise of Designers

I wrote in 2014: "As a teacher, I am interested in how we train students in the visual discriminations that are required of typographers and what characterizes typographic expertise" (Dyson, 2014, p. 1). The word cloud has captured this enquiry explored through five studies (Figure 10). The overlap with two previous themes comes from studies where we asked two research questions.

This questioning might appear to be a desire to separate typographers from others, conflicting with my desire to integrate disciplines. Because it comes quite late in my research journey, I believe it stems from a more informed perspective. This is definitely the case when collaborating on this work with David Březina.

The study of Chinese and Latin characters (described under the theme "fonts and reading") investigated both design expertise and reading expertise. Drawing on psychological theories, research on face perception has provided the inspiration for two further studies asking whether:

- Students with some education in typographic or graphic design perceive typefaces categorically.*
- Designers differ from non-designers in how they process letters, holistically or as separate features (also included in the fonts and reading theme).

Categorical perception is a psychophysical phenomenon whereby we perceive categories where none physically exist. I found some evidence that fonts are perceived categorically by people who have been trained to attend to differences among typefaces, but as I did not include non-typographers, we cannot be certain that they would not show this effect.†

Subsequent studies included a comparison of designers and non-designers, looking for differences.‡ Faces are considerably more difficult to recognize when inverted compared to other inverted objects or scenes. This effect has been attributed to the

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* Various aspects of face perception have demonstrated categorical perception (e.g., Campanella et al., 2003).

† Since readers need to decrease their sensitivity to differences that do not affect letter recognition (i.e., font styling), it is doubtful that they would show categorical perception of typefaces.

‡ In statistical terms, we are looking for an interaction between the method of processing (e.g., holistic) and expertise (designers vs. non-designers).

Figure 10. Based on eight titles and sharing two titles with the theme "fonts and reading" and two with "disfluency."

disruption of holistic processing (Farah et al., 1998). We examined whether an inversion effect is found with typefaces when discriminations are made by experts with type, compared with nonexperts. The prediction that designers would be less accurate when letters are inverted, whereas non-designers would have similar performance in both orientations, was confirmed. We proposed that designers learn to discriminate among typefaces by attending to the configural and holistic properties of the typefaces, the spatial relationships between parts, e.g., the positioning of thick and thin strokes. These are more difficult to process when inverted.

Research with art students has found less holistic processing of faces than ordinary observers attributed to art students' additional experience in drawing faces and attending to parts of a face (Zhou et al., 2012). Based on this finding, we predicted that designers, and in particular letter designers, might not process letters holistically, whereas non-designers would process letters holistically. This prediction contrasts with the inversion effect described above. Unfortunately, we found holistic processing of letters in both groups (designers and non-designers) but hypothesized that the two groups may have adopted different strategies which led to the same outcome.*

Having spent some time with designers, I am acutely aware of their sensitivity to bad design. How many typographers have given up reading a printed book because of the font used? In the experiment using Sans Forgetica described above, we explored whether we might be able to measure this sensitivity by comparing designers' subjective responses to the hard-to-read font (Sans Forgetica) with non-designers' responses. Designers judged that they would remember items they had read in Arial better than

* This is dangerously close to confirmation bias, interpreting in a way that better fits with our predictions. The hypothesis needs to be tested.

those in Sans Forgetica, whereas non-designers' judgments of memory were similar for the two fonts. Designers probably considered items in Sans Forgetica to be less memorable because they perceived them as less legible — the metacognitive effect. But there were no differences between the two groups in how well items were actually remembered.

3. Concluding Remarks

In my early career, moving into a new discipline led to my educational research in electronic media and some of the HCI projects. It was also a time when there was enormous scope for exploring the use of technology in art and design. Cross-disciplinary or multidisciplinary research is a natural response to these circumstances. But despite the existence of journals and conferences which encourage interdisciplinary research, there tends to be a primary discipline. Many of my articles or chapters were not in mainstream design publications. The most significant influence on my research is, without doubt, the people I have worked with. Almost every person who assisted me with research provided me with excellent support. Their funding was tied to a specific project, which meant some constraints on what we researched. When I moved into research collaborations, I believe there was a qualitative difference in the research and greater flexibility in what we researched. This could only happen when my research career was more established.

The juggling of similarities and differences is a natural feature of most research methods and was only a problem when looking for differences within an experiment and finding none. But the discipline difference was more challenging. Thankfully, the use of scientific methods in typography is common and frequently instigated by designers. They are in a strong position to anticipate their fellow designers' critiques, as not all agree with the experimental approach, and they avoid the pitfalls by generating ecologically valid findings.* I gradually learned what responses to expect, primarily from feedback on my conference presentations, but still feel more confident alongside a collaborator.

What is now my discipline, perhaps psychotypography, were it to exist? To my surprise, this field has already been proposed (Hyndman, n.d.), but I am interpreting the term in a different way to fit with my research: *Psychotypography is concerned with the perception of visual material, primarily textual, by readers and designers, combining the study of how we read with the visual attributes of what we read.*

* Results that can be generalized to real-world settings.

An important element of this combination is appreciating that psychology and typography address different questions: how we read versus what we read.

My route to psychotypography began with using methods from psychology, looking at readers' responses to typographic materials, for example, reading speed, comprehension, subjective judgments. I consider most of this research to be borrowing psychology's methods to use within typography. Some of the projects were patently multidisciplinary, combining with people from areas within and beyond design (e.g., computer science, museums, learning, and education). I could not have achieved interdisciplinary research without collaborators from within typography, and particularly type designers. However, my full integration required that I apply psychological theory to typography, not just importing methods. I hope I have achieved this.

How might this personal account be relevant to current researchers and designers in the field of visual communication? I am minded to leave this for the reader to consider whilst encouraging the very positive benefits of engaging with other disciplines.

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