Design for Visual Communication

Design for Visual Communication:

Challenges and Priorities

Edited by

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INTRODUCTORY NOTE

KLIMIS MASTORIDIS

The contents of this book are mostly based on ideas that have been discussed within the framework of an international event, namely the 2016 International Conference on Typography & Visual Communication (ICTVC). ICTVC was initiated in mid 2002 in Thessaloniki, Greece, but its core idea was–and still is–based on osmosis that began in the 1980s. It was the period of my academic education in the UK, especially the years I spent as a postgraduate, PhD, student at the Department of Typography & Graphic Communication of the University of Reading; ten years of professional involvement in the field of publishing had preceded that. The 1992 DIDOT conference with the title "Greek letterforms, past, present, future" that took place in Thessaloniki, as part of a European research programme, triggered a discussion and can now be thought of as the starting point for a process that gradually redefined the traditional meaning of the word "typography" in Greece. From then on, "tipografía" was to mean something more than a method of printing; the term, that in the past exclusively signified "letterpress printing", was now used to describe a design process that involved thinking and planning. The idea of having typography at the epicentre, surrounded by–and in a discourse with–a number of disciplines, posed an intriguing challenge.

Eager to take on that challenge, i.e., to introduce typography's role within the broad field of visual graphic communication to the Greek speaking community, a small team of friends–researchers, academics, and trade professionals from various countries–joined forces and collaborated towards the establishment of the ICTVC. The conference would be part of a broad range of weaponry to be used to introduce typography's role within the broad field of visual graphic communication to the Greek speaking community; a design studio dedicated to typography and visual communication, a publishing house and a bookshop, journals, workshops, seminars, and events were some of the complementary means. Seventeen years after its start ICTVC, that has been organised in Greece and Cyprus, is now one of the most prominent international events in its field. It supports open, meaningful dialogue and attracts people from many different countries and disciplines who share a passion for research, education, and practice in relation to typography and visual communication. ICTVC's thematic areas are informed by its previous events, and formulated in response to the socio-political, economic and cultural environment; this discourse is placed in the context of the impact of new technologies on research, theory, history,

education and practice in typography, printing, publishing, and other visual communication disciplines.

The 2016 conference followed the two events that were organised in Nicosia, Cyprus, in 2010 and 2013 respectively. In July 2016, more than 1000 people participated in the conference, the specialised workshops, and the many exhibitions, happenings and events that took place in Thessaloniki, Greece. The main conference, with the title "Discussing priorities, developing a field", set up to examine visual communication "as an established discipline with a flourishing professional practice, many different educational systems, critical research, well-known conferences and competitions, trade magazines, and academic journals". Participants, in addition to the above, discussed and critically evaluated the challenges such an environment creates; the articles included in this volume constitute a representative corpus of what gave rise to this process. As with the ICTVC, our aim is for this volume to become a working tool and a reference point for people interested in studying and researching into typography and visual communication.

The first part of the book includes articles under the title "Visual communication design and interdisciplinarity". In the opening chapter, Mary Dyson analyses data from previous ICTVC events to challenge the core essence of the 2016 conference motto, i.e., the view that visual communication has become an established discipline. Her lively discussion is based on a survey of more than 200 papers over a span of 14 years but also on her own, humorous reflections on personal encounters with academic editors and publishers. In her conclusion the author argues that visual communication can only be a broad territory, where different disciplines, which share some common characteristics, meet and collaborate.

In the next chapter Ann Bessemans questions the quality of communication between scientists and typographic design practitioners and how the lack of it affects readers' everyday experience. The discussion takes off from the early known organised investigations in the 19th century; in her text the author refers to scientists from different fields and explains how their findings were met by typographers and alphabet designers. Scepticism from both sides is detected and the need for open dialogue, education and cooperation towards the improvement of the "reading experience" is pinpointed.

Jeanne-Louise Moys further explores the issue of cross disciplinary practices and collaborations between researchers and practitioners, once again, from a typographic perspective. In her chapter she discusses the complexities in the process of assessing the links between aesthetic presentation and user experience and investigates ways to evaluate their qualities through measurable means. The author argues in favour of a framework based on the notion of "typographic differentiation", to be used as a tool

to facilitate, among other things, better understanding of the relationship between the design of digital interfaces and aesthetics.

The second part of the book, titled "The changing role of the designer", opens with a contribution by Alison Black. Through the description of a three-year long series of information design projects, the author attempts to answer questions about the sufficiency of "user-centred" approaches in a given environment. The aim was to produce printed forms to be used as an everyday tool for making informed decisions in hospitals treating people with dementia or patients with acute kidney injury; users included family carers, clinicians, and patients.

In chapter five, Aaron Harvey invites readers on an interesting walk through the presentation of a personal design case study. Participatory design as a social practice is the core idea behind this chapter. The author urges readers to think about the designer as a facilitator, who, in collaboration with shareholders within a learning environment, uses design methodologies to establish alternative, non-mainstream human-centred learning approaches that are highly beneficial to all participants.

The third part of the volume, titled "Research practice and the future development of visual communication design", opens with a text by Sue Perks and Wibo Bakker; they discuss engaging archival material from their study on the *Symbol Sourcebook* project of the 1950s and 1960s. In chapter six, among other things, the authors evaluate the troubled attempts of well-known personalities in the field of visual communication history, especially in the area of pictorial statistics and Isotype, such as Marie Neurath, Rudolf Modley, Henry Dreyfuss, and their roles in the compilation of a symbol dictionary. They describe the need, on the one hand, for such a work, mostly due to changes in societies after WWII, and the obstacles, on the other, due to technological restraints in an analogue era.

The three remaining chapters of the book deal with the history and practice of typography and graphic communication in relation to material that has either been produced in Greece or is somehow relevant to the Greek language.

In chapter seven, Yiannis Papadopoulos writes about the–many times painful as stated in the text–stages of a research project that led to the production of an artefact, namely a metal printing type called Jolie Grieckx. George Matthiopoulos, together with a small number of practitioners, well-informed in the old technologies of type casting, played the role of the mediator between the fields of research and practice. Their aim was to make sure that contemporary skills, tools and materials would not betray the gracefulness of the past; the outcome, based on originals found at the Plantin-Moretus collection, inspired a number of applications.

In the next chapter, Niki Sioki uses the *Primer with the Sun*, probably

the most influential primer in the history of Greek educational publishing, as a starting point to recount an intriguing story about book writing, design and production at the end of the 1910s in Greece. The study discusses the political decisions that affected the appearance of the book, the relations among its originators, and, more importantly, the actual making of it as a design artefact.

The volume concludes with chapter nine, where Dimitris Legakis presents the short history and the aims behind the establishment of a significantly useful depository for educationalists and practitioners alike; the "Archives of Visual Communication", founded in 2012, now offers its services providing interesting information about, and online access to, a large number of artefacts. In his text, the author shares with the readers his attempt at producing an inventory of Greek type specimens, most of which are kept at the "Archive", and gives a brief overview of their history and physical appearance.

As most books published since the invention of printing, this one is also compiled with good intentions, aiming to constitute a reason for thinking–in this case about current and future challenges and priorities in the field of design for visual communication–and, hopefully, a vivid spark to start a discourse. We would like to thank all those who consciously or unconsciously have participated in the process of constructing ideas and arguments for its pages, widening our horizons and, hopefully, the horizons of those who persevere with us.

Part I
Visual communication design
and interdisciplinarity

CHAPTER ONE

VISUAL COMMUNICATION: IDENTITY CRISIS OR IDENTITY ACHIEVEMENT?

MARY C. DYSON

The International Conference on Typography & Visual Communication (IC-TVC) attracts people from diverse fields and different disciplines with a passion for visual communication, but whether this has become an established discipline is a topic for discussion. This chapter uses a survey to compare titles of papers and speakers from the 1st International Conference on Typography & Visual Communication (ICTVC), held in Thessaloniki in 2002, with two later conferences held in 2010 and 2016. The observations lead to an examination of what constitutes a discipline and characterises members of the discipline. Reflecting on my own experiences of trying to work across disciplines, the discussion highlights the challenges of interdisciplinarity. I conclude that visual communication is a mix of disciplines and would be more stable if we looked for commonalities among disciplines, whilst recognising and valuing differences of approach and distinct cognitive and perceptual processes.

Prelude

On 23 June 2016, the people of the UK and Gibraltar voted in favour of leaving the European Union. A few days later I worked on my presentation for the 6th ICTVC conference, still stunned by the unfortunate responses of my fellow voters. I could not help but consider parallels between my portrayal of a possible identity crisis within the discipline of visual communication and the EU. Alexis Tsipras, Prime Minister of Greece from 2015, summed it up, including in his reaction to the vote: "We respect the decision of British people, which confirms the deep political and identity crisis of the EU."[1] I do not respect the views of the British people who made this choice and wonder what identity Britain will achieve through Brexit.

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[1] BBC News (24 June 2016) Brexit: World reaction as UK votes to leave EU. https://www.bbc.co.uk/news/uk-politics-eu-referendum-36614643. Accessed June 23, 2018.

Theme

The premise of my chapter is prompted by part of the 2016 conference description: "Visual communication is now an established discipline…" Although the title of the conference and other descriptors indicate less certainty and highlight the varied constituency of the conference, I nevertheless choose to take issue with this statement, questioning whether we have a discipline.

Exposition

To avoid an overly negative approach some attempts at humour are injected into the discussion. I am aspiring to provide slightly ironic, light-hearted speculation on the shape of visual communication, the people who practise our subject, and possible future directions. My goal is not to provide an insightful exposition on where we are heading as I am not qualified to do so. I am aiming to introduce a systematic approach to looking at the subject of visual communication,[2] drawing on authors who have examined the characteristics of disciplines and interdisciplinary work, very briefly dipping into developmental psychology and personality theory, whilst revealing some of my encounters with the boundaries of academic disciplines. Part of this process of looking at my own experiences might require some self-reflection, though not too serious in nature.

The chapter has four main parts starting with an exploration of some aspects of three ICTVC conferences. Some caveats to this approach are listed as the nature of the material precludes a statistically reliable analysis. Instead possible trends are discussed and considered in the context of a few studies from other disciplines. The next part deals with the nature of disciplines, using a set of criteria to evaluate the status of visual communication. This leads into a brief description of some of my own experiences, viewed through the lens of discipline boundaries. The third part develops this theme further by introducing the identity crisis, explaining its origins, and considering what barriers there are to crossing disciplines. The final part explores individual differences which may distinguish between those in different professions or disciplines. The conclusion encourages greater flexibility in our approach to working within and across disciplines.

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[2] I am also including graphic communication, graphic design, typography and possibly other labels under the umbrella of visual communication, although these terms are separated within the survey analyses.

Survey of conference material

As the ICTVC 2016 conference website indicates "Since its inception in 2002, people from diverse fields and different disciplines with a passion for visual language research, education, and practice, contribute to the conference." The conference can therefore be considered a suitable source of material to examine in exploring the concept of a discipline. My survey of conference material is based on 60 papers from the first ICTVC in 2002 published in the proceedings (Mastoridis 2002), 65 papers from 2010[3] and 76 papers from the ICTVC 2016 conference.[4]

These three conferences are selected from the six that have taken place to enable comparison of the titles of papers and the speakers spanning 14 years, with a point close to the middle. The outcomes do not claim to be a reliable and precise description of the conference material or speakers but can be regarded as exploratory, providing an indication of possible trends. Limitations of my approach are:

- Sampling only three conferences limits the generalisability of the outcomes.
- The selection of speakers for conferences skews the material as they will not be truly representative of all members interested in visual communication. However, it might be argued that those who put themselves forward (by responding to the conference call) are more active in the subject area.
- My categorisations of speakers' professions or disciplines may not be entirely reliable as terminology used within biographies varies depending on how people choose to describe themselves, e.g. graphic design may be equivalent to design.

Method

Some general observations are made on the number of papers, speakers, and length of titles. The titles of the talks are used to create a word cloud,[5] reflecting the frequency of individual words in each conference. As this representation separates closely related words based on the same root (e.g. typography, typographic, typographer) and semantically related words (e.g. technology, electronic, digital), a few topics are explored by collating related words from the word list created with word cloud, to make comparisons across conferences. This enquiry examines relative word frequencies, taking into account the overall number of words in each list, and the three

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[3] Titles and speakers available from http://www.ictvc.org/ictvc2010/
[4] Titles and speakers available from http://www.ictvc.org/2016/en/
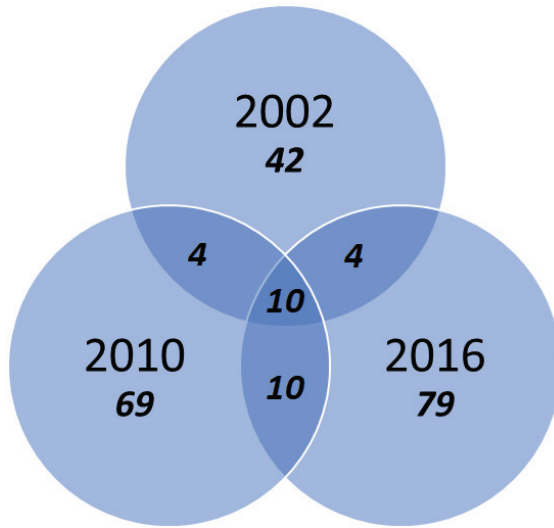[5] Word clouds are created using http://www.wordclouds.com/

Figure 1.1: Number of speakers (in bold italic) at each conference who attended one conference (outer circles) or more than one (overlapping segments). The two later conferences attracted more new speakers and more speakers returned.

publicised themes of the conferences, and looks for topics which may be increasing or decreasing in frequency over time.

To gain some insight into speakers' backgrounds, I look at the professions or disciplines included in or suggested by their biographies. The biographies of the 2002 speakers are much briefer than those provided in 2010 and 2016. I rely on my knowledge of certain speakers to assign subject areas. In some cases, two or more areas are assigned to one speaker.

Results

General observations

A total of 60 speakers came from 12 countries in 2002, whereas this increases to 93 speakers from 24 countries in 2010, and 103 speakers from slightly fewer countries (20) in 2016. This increase in the total number of papers and speakers over time is likely to reflect the establishing of the conference and greater reach internationally. Figure 1.1 illustrates the increase in speakers with the division into new speakers and those returning on subsequent occasions.

The first conference stands out as having no multiple authored papers in contrast to 2010, where 16 out of 65 are co-authored (25%), and 2016

with 18 out of 77 co-authored (23%). This trend from single authored to multi-authored has been identified in economics journal articles (Hudson 1996). Although this took place much earlier (i.e. 1950s to 1990s) than the span of this survey, economics was well-established in this period as it became an independent discipline around 1870–1900 (Parrish 1967).[6] Two of the reasons that Hudson (1996, 155) proposes for increased collaboration within economics may apply to visual communication and multi-authored conference papers: growth in the subject areas covered and in the size of the profession. The nature of the subject also impacts on reasons to collaborate and co-author. In science disciplines, researchers frequently work in teams to collaborate on "big science" (Hudson 2016, 878). Within visual communication, practice-based collaborations exist where teams work on, for example, large-scale branding projects.
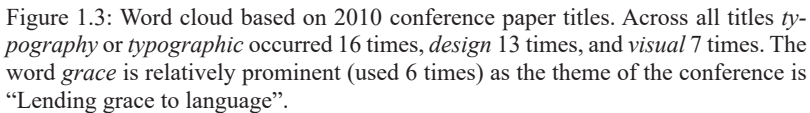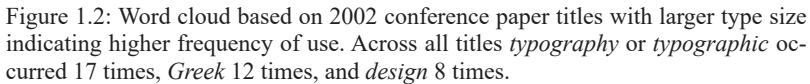
Titles

Another trend over time is noticeably more words, on average, in the 2016 titles compared with 2002 and 2010, suggesting that authors have become more verbose recently. This is in line with titles of journal articles getting longer to increase information content (Lewison and Hartley 2005, 342; Hudson 2016, 872). In other disciplines, biological sciences (Kuch 1978) and social sciences (White 1991), multi-authored journal articles have tended to have longer titles in later years. Looking at the conference papers, in 2010 the multi-authored papers have longer titles than single authored papers, but this is not the case in 2016. However, the titles are longer overall in 2016, i.e. single authors are also devising longer titles. Time has been found to be a stronger indicator of title length than the number of authors (White 1991).

Figures 1.2–1.4 provide representations of the words in the 2002, 2010 and 2016 conference paper titles. Given stylistic, country-specific, and other influences, I do not wish to assign too much importance to the specific words in titles. However, some patterns may be worth mentioning. There is an obvious difference in frequency of the word *Greek* in 2002, compared to later years. The percentage of speakers from Greece and Cyprus is fairly similar in each conference, rising very slightly from 45% (2002) to 48% (2010) to 52% (2016). The greater use of *Greek/Greece/Grecian* is likely to be due to the topic suggestions for the first conference which included "history of Greek (and not only Greek) printing". The only topic that emerges slightly more frequently in the titles from the 2002 theme of "Typography and visual communication: history, theory, education" is *history/historical*.

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[6] At the beginning of the twentieth century, visual communication was probably not even identified as a subject worthy of study, much less a discipline.

Figure 1.2: Word cloud based on 2002 conference paper titles with larger type size indicating higher frequency of use. Across all titles *typography* or *typographic* occurred 17 times, *Greek* 12 times, and *design* 8 times.

Figure 1.3: Word cloud based on 2010 conference paper titles. Across all titles *typography* or *typographic* occurred 16 times, *design* 13 times, and *visual* 7 times. The word *grace* is relatively prominent (used 6 times) as the theme of the conference is "Lending grace to language".
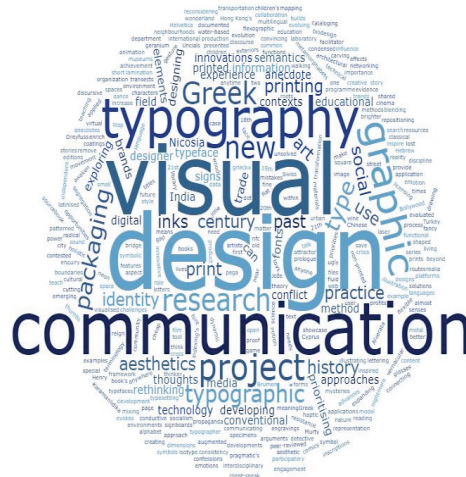
Figure 1.4: Word cloud based on 2016 conference paper titles with *design* occurring 17 times, *visual* 16 times, *typography* or *typographic* 13 times, and *communication* 12 times.

The two later conferences have themes which are different in nature, proposing a more specific perspective, rather than a more general overview. "Lending grace to language", the theme of 2010, promotes the word *grace(s)* into seven titles but, perhaps surprisingly, has less impact on the use of *language* compared with the two other conferences. The theme of 2016, "Discussing priorities, developing a field", led to isolated use of *priorities, interdisciplinary, discipline* and two references to *field*, suggesting a rather limited effect on titles.

Writing about technology decreases in frequency after the first conference which may be attributed to its ubiquitous role and acceptance as part of everyday activities in the last decade. Reference to *typography/typographic/typographer* remains popular until 2016, when *design/designing/designer* becomes more prevalent, as does communication, suggesting the use of more general terms among the wider group of speakers (79 new to the conference, see Figure 1.1). *Project* and *research* are much more frequent in 2016 and new words which emerge are *social, socialism, aesthetics* perhaps reflecting a more sophisticated approach to the subject and a broadening of scope.

Speakers: professions or disciplines

In 2002 there is a clear preponderance of design, and more specific areas of graphic design, typography, type design, and design history. Three

speakers come from the discipline of computer science and all other subjects have single representatives, some of which may be considered neighbouring subject areas (art education, art history, publishing, art) and some a little more distant (Russian literature, engineering, psychology, history).

In 2010, about half the speakers come from graphic design, with a significant number from typography and type design. Other specialisms within design are information design, multimedia design and design history. Various forms of communication are represented: visual communication, communication design, and graphic communication, which are likely to be synonymous or overlap. A few distinct disciplines have single representatives: computer engineering, applied linguistics, political science, architecture, psychology and geography.

Graphic design, design, typography, visual communication and type design make up about 60% of the subject areas in 2016. Some new areas of design emerge, with single representatives but also overlap in subject area (e.g. human computer interaction, user experience design, interface design). Some distinct disciplines which emerge in 2010 have slightly more representation in 2016: architecture and psychology (3), engineering (2).

The range of subject areas covered, in relation to the number of speakers, is similar in 2002 and 2010. However, in 2016 there is greater diversity, perhaps due to the new fields emerging. Whether this constitutes the establishing of a discipline is debatable and is considered further below.

Disciplines

Nature of disciplines

To address the question of whether visual communication (represented here by the conferences) can be described as a discipline requires identifying a set of criteria. A report from the University of Southampton's National Centre for Research Methods in the UK (Krishnan 2009, 9) describes the general characteristics of academic disciplines as:
- having a particular object of research (e.g. law, society, politics)
- having a body of accumulated specialist knowledge related to the object of research, not generally shared with another discipline
- having theories and concepts to organise the specialist knowledge
- using specific terminologies or a specific technical language to deal with their research object
- having developed specific research methods to meet their specific research requirements
- needing an institutional manifestation, such as a subject taught at universities or colleges, with academic departments and professional associations.

I believe that visual communication satisfies some of these criteria having: an object of research; specialist knowledge which is taught and researched at the level of higher education; various professional associations. Like most disciplines, a large amount of technical language exists which helps in communicating the subject but can also be used to alienate those outside the field. I question whether we can agree on which research methods are appropriate to the study of visual communication, which I shall return to later. Whether it has its own theoretical underpinnings is also less certain.

I tend to agree with Frascara (1988, 18) who suggests that graphic design[7] "has developed without much theoretical reflection" in contrast to architecture, literature and the fine arts. My personal view is that theories and concepts are typically borrowed from other disciplines, and those with which I am reasonably familiar are psychology, linguistics and education. The involvement of speakers from a range of fields in 2016 tends to support this. I would like to see, and encourage others to see, this multi- or inter-disciplinarity in a positive light.

Finding my discipline

The call for the conference coincided with the arrival of reviews of a paper I had submitted to a journal based on collaborative research. My intention was, with the support of my collaborator, to publish the research in a psychology journal before presenting the work in a very different way for a design journal, in order to disseminate the findings across disciplines.[8] The first journal we tried:

> Many thanks for sending us your manuscript for consideration but after some discussion with the Chief Editors we have decided it falls outside the areas of interest for [journal name]

The Editor did elaborate on this by recognising the value of the work to font design but questioning its contribution to understanding perceptual processes, key to the aims of the journal.

The next attempt got further. The editor, based on three reviews, rejected the paper but invited a resubmission based on a major revision. I started to do this but at some point decided that the reviews, understandably, were making our paper conform to the conventions of a (sub) discipline to which I did not belong, I did not realise I had stumbled into, and had no wish to remain in:

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[7] See footnote 2.

[8] This strategy was not aimed at increasing the number of my research outputs, though it would have this effect. As I will not be included in the next REF (Research Excellence Framework) carried out in the UK (2020), this could not be the motivation.

> In psycholinguistics experiments, it is customary to report the materials in an Appendix

We made our way back into the camp of visual communication and geared the work towards designers. Of course, there are groups within the camp who have different interests and perspectives and we approached the wrong one first, but they were very polite when turning us away:

> An initial review of "How do stylistic features of fonts influence word recognition?" has made it clear that this submission does not quite fit the focus of [journal name].

> I think that the focus of the paper will be more suitable for journals on ergonomics and usability.

There is a happy ending to the story as the research is now published (Dyson and Beier 2016) with a revised title suggested by a reviewer: "Investigating typographic differentiation: italics are more subtle than bold for emphasis". The new title puts the paper squarely within visual communication, leaving behind cognitive or perceptual psychology.

The identity crisis

My desire to formulate this chapter in terms of an identity crisis (or identity achievement) of the discipline may originate from my background in psychology (although I left behind developmental and clinical psychology many years ago). Alternatively, it may just be my personal experiences and the different roles I have adopted. I have worn different hats, quite literally, on a number of occasions. In a conference presentation (ATypI 2009) I decided to act out three roles: counsellor, mediating between psychologist and type designer.[9]

I refer above to "our subject" but I came to the field of typography from outside and I think I have ended up sitting on the fence, and there is a fence. It has not been constructed by my close colleagues but possibly by the community, or sections of that community, and by me; I believe I have helped hammer in the posts, at times from the outside, other times from the inside. Nearly twenty years ago I described what I perceived as the tensions between psychologists and typographers (Dyson 1999). Although I claimed

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[9] I was inspired by a well-known routine performed by Tommy Cooper, a British magician/comedian. Tommy Cooper – his "Hats" routine https://www.youtube.com/watch?v=6IqXaSrYr74. Accessed October 1, 2018. I was motivated to use this in an academic setting having seen it done by Tony Gale, Professor of Psychology.

to be aiming for a balanced perspective, this was done through drawing out the differences.

At that time, I was still very much the psychologist and it took more time before I felt I was inside the fence looking out. This was signalled, in part, by my critical evaluation of the research of those on the outside, but I wasn't sure I was in the right place. Feeling more at ease on the inside was helped by collaborating with accepted members of the community. But I don't think I was ever one of them. Does this begin to sound like an identity crisis?

Origins

Identity crisis is a popular term coined by Erik Erikson, a psychoanalyst, who interestingly came to psychology from Art. A noteworthy character – working at the University of California in 1950 he refused to sign a "loyalty oath" of non-subversion; he resigned claiming that he was not a Communist but would not participate in national hysteria. A ten-year sabbatical enabled him to fully conceptualise the identity crisis. He later credited his own identity confusion as the means to conceptualise identity crisis. But he also regretted introducing this term because of its general misuse[10] (Hoare 2001, 25–26):

> Erikson's identity concept in particular had spawned fresh sightings of it everywhere, leading even its originator to say that he had become "allergic to the term identity because of its general misuse".

As Hoare elaborates, by creating a concept linked with specific complaints, we look for the symptoms and often find them (Hoare 2001, 26):

> Symptoms follow concepts, as well as preceding them.

Barriers to crossing boundaries

In addition to the problem of locating an appropriate journal in which to publish, some of my attempts to gain funding for research have received responses from reviewers which are relevant to the boundaries between disciplines and research methods used by different disciplines. In one case my project proposed investigating perceptual skills in the field of typeface design and is summarised below:

> Visual perceptual skills form a significant part of any design endeavour, and in the case of typeface design underpin every stage of the design process

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[10] My use of the term "identity crisis" is a good example of misuse for popular appeal.

for all writing systems. Investigating and recording how perceptual skills are acquired, developed, and applied in the field of typeface design will increase our understanding of a hitherto undocumented yet vital element of the type design process. Such an understanding will form the basis of testing and teaching tools that will enhance the knowledge of existing practitioners, educators, and thereby students/future practitioners, in this and related fields in an international environment.

A reviewer noted that my basic premise appears mechanistic and I am not considering the cultural context of typefaces, despite working in an academic department which teaches the history of the subject. Whilst I accept that typeface design draws upon historical context, I regard my project as focusing in on a specific aspect of the design process, which I believe can be separated from other aspects. The reviewer, however, regarded this as a limited view of the topic, which might be explained by my lack of a background as a design practitioner. I agree that my view is limited, but this is intentional, and the project involved staff who were practitioners. Reviewers commonly reflect different viewpoints and a more positive response to the research supported the need for empirical work in design and appreciated the targeted nature of the work.

The project was not funded and subsequent revision of the research proposal still received the critique that I do not have the *appropriate* experience for the project. I am once again branded with employing a mechanistic approach, no doubt stemming from my psychology training informing my choice of research methods. My lack of experience in making qualitative judgements in designing type is questioned. However, I would argue that such limitations can be overcome by collaborating and involving more than one discipline.

Culture clash

An obstacle to collaborating across disciplines, or proposing a project which uses research methods from a different discipline, may be a clash of cultures. A disciplinary group generates, develops, and expresses their arguments using a specific language which establishes their cultural identity (Becher and Trowler 2001, 46). In Krishnan's report on academic disciplines an anthropological perspective is discussed which seems to resonate with how I perceive my experiences. Those who practice the discipline belong to different academic tribes with different cultural practices. Group identity is maintained by distinguishing between "them" and "us" (Figure 1.5). Academics who leave their tribe and cross boundaries might find themselves "expelled", "cut off" and "intellectually homeless" (Krishnan 2009, 23–24). This may be motivated by the tribe's eagerness to protect their knowledge

Figure 1.5: Highlighting differences, I return to the referendum result. (Image from iStock/altimira83)

and methods. Krishnan also cites Strathern's summary of crossing boundaries: "one knows one is in an interdisciplinary context if there is resistance to what one is doing" (Strathern 2005, 130).

Cognitive styles

Another source of alienation could be the different modes of information processing attached to different professions (Kozhevnikov, Evans and Kosslyn 2014, 19):

- visual and performing arts: visual-object information processing
- natural science and technology: visual-spatial information processing
- humanities and social sciences: verbal information processing.

These authors synthesise literature from education, business, and management and discuss differences between members of various professions in terms of different perceptual approaches. Of particular relevance to visual communication and my own predicament is visual artists' tendencies to "seek intuitive understanding through direct perception" and scientists' use of "a more analytical, rule-based approach" (Kozhevnikov, Evans and Kosslyn 2014, 21). The latter appears to be describing my mechanistic approach.

In a study where scholars judged the similarities of subject matter across

thirty-six academic areas, one dimension which emerged differentiated between creative and empirical approaches (Biglan 1973, 201). The analysis was regarded as relevant to the cognitive and perceptual processes of the members of different disciplines. This comment resonates with my own research interests in characterising the perceptual abilities of designers (as outlined above) and contrasting these with non-designers (Dyson and Stott 2012).

Perceptual attitudes

Given my interest in perceptual judgements, I was excited to find a link between perceptual attitudes and cognitive style (Klein 1951, also cited in Kozhevnikov et al. 2014, 5). This led me to some early research, stemming from Gestalt psychology. The study described in Klein (1951, 335–336) involved showing participants squares, one at a time, and asking them to judge their size, e.g. a square of 4 inches. These were shown in series of five squares increasing in size and after three repetitions the smallest was removed and a larger size placed on the end of the series. Participants made a total of 150 judgements. The study was designed to test whether participants would notice the increase in size of the fifth square and the removal of the smallest, i.e. whether they responded to change. Figure 1.6 illustrates part of a progression of this nature.

The outcomes of the study claimed to distinguish between two types of people:

- sharpeners who keep pace with the rate of change and notice the contrasts when the smallest is removed and a larger one added
- levelers who perceive a rate of change that is slower than the actual rate of change.

Sharpeners are therefore looking for differences, whereas levellers are noticing similarities and ignoring (to some extent) the differences. Klein links this to personality theory proposing that levelers have the trait of "self-inwardness" which includes avoiding competition, exaggerated needs for nurture, self-abasement, and so on. In contrast, sharpeners have the trait of "self-outwardness" which translates into manipulative behaviour, enjoying competition, high needs for attainment and so on (Klein 1951, 339).

I am not keen to pursue the link with personality traits[11] but recognise that typographers tend to look for differences, attending to detail, focusing on specific elements of letters when discriminating among typefaces, even when a more global strategy might be more efficient (Dyson 2011). Design

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[11] Using Klein's diagnosis, this would lead to the suggestion that typographers are highly competitive, enjoy exhibitionism, and frequently push themselves forward.
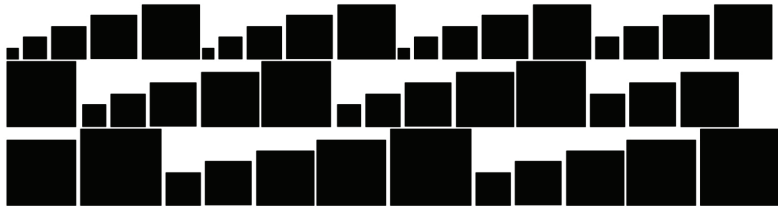
Figure 1.6: Simulation of part of a sequence of squares which were projected one at a time to participants in the study described in Klein (1951). Participants were asked to respond with a size (in inches) for each individual square.

training can promote this sharpening, just as musical training affects perceptual abilities (Burns and Ward 1978).

Whether you are a sharpener or a leveler, you were not born that way. Recognising these differences can be useful, if we then value other approaches or perspectives. This seems to be a route to interdisciplinary work. Above I have introduced some of the problems of diversity. However, I believe in combining different disciplines, a sentiment that is probably shared by many other people who have an interest in visual communication.

Recapitulation: identity crisis or identity achievement?

To return to my title, and to relate this to my own experiences and reflections on the conferences, I do not believe we have a coherent, stable discipline of visual communication. Although I feel I was doing interdisciplinary research, I may have fallen short of this ideal. A report on *Facilitating Interdisciplinary Research* (2005) distinguishes between true interdisciplinarity, borrowing and multidisciplinarity:

- interdisciplinary: integration and synthesis of ideas and methods
- borrowing: use of one discipline's skills in another discipline
- multidisciplinary: separate contribution from each discipline.

For quite a while I may have been a borrower, using skills from psychology within typography and visual communication. I think there are groups in our field involved in truly interdisciplinary work, despite interdisciplinarity being notoriously fraught with difficulties. Examples include funded research projects such as:

- A project to "improve the knowledge and understanding of Anti-Microbial Resistance (AMR)" funded by the Arts and Humanities Research Council (AHRC) combining typography, architecture and pharmacy at Reading, human factors at Loughborough, together with a science

communication agency, Design Science and the Day Lewis pharmacy chain.[12]
- "The Eye's Mind–a study of the neural basis of visual imagination and its role in culture", also funded by AHRC with a team spanning neuroscience, philosophy, history of art and including a visual artist.[13]
- "Preserving Antibiotics through Safe Stewardship: PASS" funded by the Economic and Social Research Council (ESRC) which combines a variety of science disciplines with design.[14]

Where disciplines are stable, interactions may be more easily defined than where disciplines are themselves "fragmented and heterogeneous". This makes interactions with other disciplines more complex (Krishnan 2009, 5). However, the more negative aspects of loosely knit disciplinary groups, and geography is an example, does mean that techniques can be easily absorbed from neighbouring territories (Becher and Trowler 2001, 59). The subject area of visual communication seems to be multidisciplinary and consequently heterogeneous. This may therefore be one reason why interdisciplinary work is problematic. The tendencies to look out from the inside or look in from the outside may also deter integration. Perhaps the best place for us all is on the fence, if it can take the weight. From there, the boundaries with other disciplines may seem more penetrable.

Finale

It took me years to progress from pointing out differences (sharpener) to seeking overlaps and similarities. Klein would say this was a change from self-outwardness (sharpeners) to self-inwardness (levelers). I don't believe that. I would like to think it was flexibility and openness to other ways of thinking, accepting different cognitive styles, and appreciating the different aims and motivations underlying others' work.

The UK has chosen to see Europe as "them" and not "us"; let's not create the same divisions within visual communication. Can we find our identity through welcoming collaboration?

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[12] https://amrpharmacy.org/ Accessed October 1, 2018.

[13] http://medicine.exeter.ac.uk/research/healthresearch/cognitive-neurology/theeyesmind/people/ Accessed October 1, 2018.

[14] https://www.ukri.org/files/legacy/amr/shallcross-preserving-antibiotics-through-safe-stewardship-pass-pdf/ Accessed October 1, 2018.

Acknowledgements

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