DISCOURSES, MODES, MEDIA AND MEANING IN AN ERA OF PANDEMIC

A MULTIMODAL DISCOURSE ANALYSIS APPROACH

Edited by
Sabine Tan and Marissa K. L. E

Discourses, Modes, Media and Meaning in an Era of Pandemic

The COVID-19 pandemic has affected all aspects of our everyday lives – from the political to the economic to the social. Using a multimodal discourse analysis approach, this dynamic collection examines various discourses, modes and media in circulation during the early stages of the pandemic, and how these have impacted our daily lives in terms of the various meanings they express.

Examples include how national and international news organisations communicate important information about the virus and the crisis, the public's reactions to such communications, the resultant (counter-) discourses as manifested in social media posts and memes, as well as the impact social distancing policies and mobility restrictions have had on people's communication and interaction practices. The book offers a synoptic view of how the pandemic was communicated, represented and (re-)contextualised across different spheres, and ultimately hopes to help account for the significant changes we are continuing to witness in our everyday lives as the pandemic unfolds.

This volume will appeal primarily to scholars in the field of (multimodal) discourse analysis. It will also be of interest to researchers and graduate students in other fields whose work focuses on the use of multimodal artefacts for communication and meaning making.

Sabine Tan was until recently Senior Research Fellow at Curtin University, Australia. She has a background in critical multimodal discourse analysis, social semiotics and visual communication. She has applied multidisciplinary perspectives for the analysis of institutional discourses involving traditional and new media, and worked on interdisciplinary projects involving the development of interactive software for the multimodal analysis of images, videos and 360-degree videos for research and educational purposes.

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Introduction

1 Discourses, modes, media and meaning in an era of pandemic

A multimodal discourse analysis approach

Sabine Tan and Marissa K. L. E

Introduction

Late in December 2019, the world first learnt about the outbreak of a cluster of viral pneumonia cases in Wuhan Province, China. Soon after, on 9 January 2020, the World Health Organization (WHO) reported that the Chinese authorities had identified a novel coronavirus as the cause of these cases. The virus spread rapidly across the globe, and the outbreak of the initially unnamed disease, which eventually became known as COVID-19, was upgraded to a pandemic on 11 March 2020 (World Health Organization, 2020). No country was spared, and all aspects of everyday life have been upended by the unfolding of the pandemic.

To stem the rise of infections, governments introduced lockdowns and border closures, and international travel came to halt. People were compelled to stay at home and work and learn using online video conferencing platforms, wear masks and practice social distancing. To protect themselves and others against the COVID-19 virus, the public needed to stay informed, following advice given by official healthcare providers and government authorities amidst the proliferation of 'fake' news and misinformation circulating on social media channels. In short, the ways we think of and experience the world, behave in it and express our varied realities have had to change rapidly in tandem with the ever-evolving crisis.

This book examines various discourses, modes and media in circulation during this early period of the COVID-19 pandemic, and how these have significantly impacted our daily lives in terms of the various meanings they express that have come to form the (new) realities we experience and interact with daily. Examples include how national and international news organisations communicate important information about the virus and the crisis, the public's reactions to such communications, the resultant social media (counter-)discourses as reflected in social media posts and memes, as well as the impact of social distancing measures on learning and education.

While the book offers a synoptic view of communication during the early phases of the COVID-19 pandemic, an examination of varied discourses, modes, media and meaning during the early days of the pandemic is necessary since it has led to new developments in the ways we came to experience and adapt to a 'new normal'. More than two years after the idea for this book was conceived, the COVID-19 pandemic continues to have a widespread impact on every sphere of our lives (e.g. Nyland & Davies, 2022; Rogers, 2020; Timotijevic, 2020; Vyas, 2022).

Theoretical approach

To explore the varied meanings and realities engendered by COVID-19 discourses, this book adopts a multimodal discourse analysis (MDA) approach. This approach, with its established theoretical and analytical frameworks – for example, Hodge's (2016), Kress' (2009) and van Leeuwen's (2005) social semiotics; Kress and van Leeuwen's (2001) perspectives on the modes and media of contemporary communication, and their seminal grammar of visual design (2006); Baldry and Thibault's (2006) and Norris' (2011, 2014) conventions for transcription of multimodal videos; Machin's (2007, 2013), Machin and Mayr's (2012) and van Leeuwen's (2008) multimodal approaches and tools for critical discourse analysis; and many others – is ideally positioned to make use of the vast trove of data available as entire nations, societies and individuals across the globe work to reframe, reorientate and recalibrate a world that is forever changed by a pandemic of proportions that many have never ever seen before in their lifetimes.

The utility of the MDA approach stems from how it can be used to investigate different forms of varied meanings that emerge from the many different discourses, modes and media interacting with one another. The MDA approach is useful in that it also considers the interaction between text, image, video and sound typical of the digital era, and is thus an apt tool for examining how discourses about the pandemic were represented across different spheres of professional and private lives.

While discourses on multimodality have developed distinct and idiosyncratic – and sometimes contested – interpretations of the terms 'discourses', 'modes', 'media' and 'semiotic resources' (e.g. Bateman et al., 2017; Jewitt, 2016; Kress, 2009; Kress & van Leeuwen, 2001; van Leeuwen, 2005), in this book these terms are approached from a more general perspective with a view to how these are employed in COVID-19 discourses as resources for communication and meaning making.

Organisation of the book

The book comprises a total of 12 chapters including this introductory chapter. The various themes and topics that are explored in these chapters are arranged in four parts. Part I focuses on the use of semiotic

resources and discursive strategies for expressing meaning in static multi-modal media about the COVID-19 pandemic, such as political cartoons and 'graphic medicine' comics. Part II focuses on the affordances and appropriation of new media technologies in educational contexts and the communicative effectiveness of public health information tweets. Part III focuses on the varied communicative functions and strategies employed in dynamic media discourses about and during the pandemic to inform and engage audiences on both a national and international level. Finally, Part IV focuses on the wider communicative meanings and purposes of COVID-19 discourses, namely, how they were reappropriated by the public as a means for delegitimising authoritative messages through use of humour, and for co-creating semiotic knowledge through citizen participation.

Ultimately, the collection of chapters in this edited volume provides a snapshot of multimodal communication during the early phases of the COVID-19 pandemic around the world, documenting the effects the pandemic had on many aspects of our daily lives, and which we are continuing to endure as the pandemic takes its course.

Part I. Use of semiotic modes/resources in COVID-19 discourses

In Chapter 2, **'Stay at home': Speech acts in Arab political cartoons on COVID-19 pandemic**, **Ahmed Abdel-Raheem** considers whether speech act theory and metaphor can be usefully combined and extended to the study of multimodal artefacts and behaviours to arrive at a better understanding of the evaluative meanings cartoonists express in their drawings. Using examples from a corpus of 250 coronavirus-related political cartoons extracted from the digital archive of the Arab satirical magazine *Tomato Cartoon*, Abdel-Raheem explores ways in which multimodal metaphors were employed in the cartoons in the corpus, and how these could be meaningfully interpreted as speech acts. Highlighting the need to move beyond the traditional practice of perceiving political cartoons largely in terms of negative comments or criticisms, the author draws on the principles of sociopragmatics and multimodal metaphor (e.g. Bounegru & Forceville, 2011) to identify how speech acts pertaining to the COVID-19 pandemic were deployed multimodally in the cartoons. The findings reveal that these extend beyond acts of judging and include many positive reactions and behaviours such as thanking healthcare workers for their efforts and sacrifices in fighting the coronavirus.

Chapter 3, **COVID-19 communication as 'graphic medicine': A multimodal social semiotic approach**, by **Marissa K. L. E** and **Sabine Tan**, explores the interactive meaning-making potential of comics as graphic medicine (e.g. de Rothewelle, 2019; Green & Myers, 2010) by analysing a selection of short comics from "The COVID-19 Chronicles" published by the National University of Singapore (NUS). Adopting a multimodal social semiotic approach based on metafunctionally organised frameworks

as developed by Kress and van Leeuwen (2006, 2021) and van Leeuwen (2005) for the analysis of images and other multimodal resources, the study investigates what makes comics containing public health information about COVID-19 a potentially effective medium of communication. The findings show how the strategic co-deployment of text and image in these comics, together with the utilisation of the narrative form, helps to (a) construct visual stories that simplify and gradually develop complex concepts for the general public's consumption, (b) engage audiences using affective appeal via humour and positive appraisal, and (c) represent particular actions taken by the Singapore government positively, particularly with a view to the roles played by healthcare workers in managing a healthcare crisis caused by the outbreak of COVID-19 in migrant worker dormitories.

Part II. Use of media/media technologies in COVID-19 discourses

In Chapter 4, **Design considerations for digital learning during the COVID-19 pandemic: Losses and gains**, **Fei Victor Lim** and **Weimin Toh** consider how the COVID-19 pandemic has highlighted the value of digital technology in educational contexts at a time when physical interactions are constrained. Taking into account the considerable challenges involved in the sudden conscription towards digital teaching and learning during the pandemic, the authors discuss how the use of semiotic technologies, such as video lectures, digital games for learning and social media platforms such as Facebook in its appropriation as a learning platform, can be utilised to design positive learning experiences for students. From the perspective of design considerations, the authors explore the different ways of meaning making in digital learning – in particular, how knowledge can be represented, pedagogic relations expressed and learning organised through the affordances of semiotic technologies.

The authors then reflect on the losses and gains in digital learning that arise from the use of these semiotic technologies, arguing that teachers in today's digital era need to expand their pedagogical repertoire beyond designing learning in the classroom to designing learning in the online environment. The considerations offered by the authors in this chapter are a step towards supporting teachers in designing effective blended learning experiences in the post-pandemic education normal.

Chapter 5, **Phraseology and imagery in UK public health agency COVID-19 tweets**, by **David Oakey, Christian Jones** and **Kay L. O'Halloran**, focuses on the linguistic and visual resources used in UK public health agency tweets for effective communication relating to the COVID-19 pandemic. Combining multimodal social semiotic analysis (e.g. O'Halloran et al., 2019; van Leeuwen, 2005) with corpus linguistics, the authors examine the phraseology and imagery in a corpus of UK public health agency tweets to understand how linguistic and visual resources combine to shape these public health information messages. Focusing on

the n-gram as the principal textual unit of analysis, the authors aimed to (a) identify the most common phrases used by UK public health agencies to provide public health information about COVID-19 on Twitter; (b) identify the common images used with these phrases; and (c) understand how both phrases and images function in these public health discourses. The analysis showed that the most frequently used n-grams in these tweets often served to give advice or instructions while presenting this more neutrally as information. The images that were combined with these frequent n-grams tended to be photographs representing members of the public and authority figures, procedural infographics, and posters with cartoon images. The authors observe that the text in the tweets sometimes appeared to be misaligned with the intended functions of the visual representations (e.g. see also Chapter 11, this volume), thus affecting the overall effectiveness of the public health communications.

Part III. Communicative functions/strategies of COVID-19 discourses

Chapter 6, **Australian universities engaging international students during the COVID-19 pandemic: A study of multimodal public communications with students,** by **Zuocheng Zhang, Toni Dobinson** and **Wei Wang,** examines how Australian universities engaged international students during the COVID-19 pandemic on their websites, videos and text messages. Considering that universities have stepped up their engagement practices to showcase their understandings of, and responsiveness to, international students' needs amidst the ongoing COVID-19 pandemic, the authors investigate how three Australian universities, namely, the University of Sydney, Curtin University and the University of New England, used internet-based public communication channels as platforms for engaging international students. The data included COVID-19 information webpages, international student webpages, news/events webpages, and/or Vice Chancellor's video and text messages. Adapting and building on Hyde's (2017) definitions of student engagement by adding the element of communicative acts, the authors used a multimodal discourse analysis approach (e.g. Kress & van Leeuwen, 2006) for examining the roles the three universities constructed for themselves in their public communications, and the dimensions of engagement this provoked in international students. The findings indicate that all three universities displayed high levels of pastoral care for their international students, as attested in the large number of Informing and Supporting communicative acts at critical stages during the pandemic. At the same time, the study found that other roles included in cognitive engagement, such as promoting thinking, critiquing and reflecting, were downplayed by all three universities.

In Chapter 7, **"We are in this together": Cultural branding and affective activations in a pandemic context, Carl Jon Way Ng** explores how leading airline companies such as Singapore Airlines (SIA) and Cathay

Pacific Airways (CPA) leveraged the themes of togetherness and solidarity in their social media brand communications. Taking a social semiotics-informed approach (e.g. Kress & van Leeuwen, 2006; Machin, 2007), he examines the multimodal strategies these two airline brands employed to enact brand identities that index responsible social and corporate citizenship, and at the same time place importance on attending to and ameliorating the distress of fellow citizens. By analysing two Facebook posts produced by these two carriers, namely, "We are in This Together" (SIA) and "Your heroes, our heroes" (CPA), the author highlights the affective-semiotic work of these brand artefacts in instantiating the broad contours of branding in a pandemic context. The findings affirm trends and developments in branding, particularly the observation that much of contemporary branding is premised on affective messaging and management, while mentions of products and services offered are downplayed, giving way to enactments of symbolic-affective meanings and relations. In line with the social-semiotic perspective (e.g. Kress, 1985; Machin & Mayr, 2012), he further considers the effects of such brand communications not merely as strategic rhetorical work, but as enactments that help to perform socially conscious brand personalities, with brands not only presenting themselves as responsible corporate actors, but also as social citizens attending to the distress of fellow citizens.

Chapter 8, **Defamiliarise to engage the public: A multimodal study of a science video about COVID-19 on Chinese social media**, by **Yiqiong Zhang, Rongle Tan, Marissa K. L. E** and **Sabine Tan**, focuses on the ways the rhetorical strategy of defamiliarisation (Shklovsky, 1917/2017) was employed as an engagement strategy in a popular science video about the COVID-19 pandemic on Chinese social media. Drawing on analytical perspectives from multimodal discourse analysis and social semiotics (e.g., Kress & van Leeuwen, 2001, 2006), the authors examine how the strategy of defamiliarisation is realised semiotically in the video to frame and position subjects and events in particular ways. By examining the multimodal construction of meaning at different levels of discourse in the video, the analysis revealed that defamiliarisation operated on all three levels of meaning – textual, interpersonal and ideational, as realised, for example, through juxtapositions of meaning in the video's structural organisation, different types of visual display in terms of their modality value, the use of voice of authority and nostalgia, and elements of unexpectedness in the representations of social actors. The approach allowed the authors to demonstrate how the strategy of defamiliarisation can potentially facilitate audience attention and affective engagement, while at the same time enabling the communication of scientifically accurate and timely information. The chapter highlights how a multimodal conceptualisation of defamiliarisation can offer a new perspective for analysts and practitioners in science communication who are interested in how to engage the public in novel and unfamiliar ways amidst the 'infodemic' of science news about the coronavirus and the pandemic.

In Chapter 9, **Beyond reporting: The communicative functions of social media news during the COVID-19 pandemic, Yuanzheng Wu** and **Dezheng (William) Feng** present findings from an analysis of 232 news video clips posted by CCTV (China Central Television) News on TikTok to highlight the multiple functions social media news perform in engaging the public with news about the COVID-19 pandemic in China. Drawing on Matthiessen's (2009) register typology of social semiotic activities and Martin and White's (2005) system of Appraisal, the authors demonstrate that, apart from reporting the news, social media news performs a wide range of communicative functions, such as sharing positive attitudes and emotions about the reported content, expounding pandemic-related knowledge and recommending appropriate protective measures. The findings show that, in their corpus, sharing was the most prominent activity, which serves to distinguish social media news from traditional news. In terms of the realisation of social semiotic activities, the findings also showed that the news posts were characterised by a prevalence of personalised and emotional content in both language and images. As such, the study presents new insights into the multiple activities and discursive features that served the social, political and educational functions in managing the COVID-19 pandemic in China as shaped by the affordances of the social media platform TikTok.

Chapter 10, **Exploring strategies of multimodal crisis and risk communication in the business and economic discourses of global pandemic news**, by **Carmen Daniela Maier** and **Silvia Ravazzani**, endeavours to broaden the range of methodological approaches to multimodal communication by proposing an interdisciplinary approach for investigating multimodal crisis and risk communication in business and economic discourses that have appeared in the news media during the first months of the COVID-19 pandemic. Combining the social semiotic approach to multimodal discourse (van Leeuwen, 2008, 2018a, 2018b) with approaches to crisis and risk communication (e.g. Coombs, 2012; Heath & Palenchar, 2016; Raupp, 2018), the authors develop an analytical model for revealing the ways in which multimodal business and economic discourses in global news media function to legitimate and evaluate various versions of the unpredictable reality across blurred national borders. They then apply this model to a selection of global news videos released during spring 2020 by three international news channels, namely, *CNN*, *The Economist* and *Financial Times*, to examine and reveal the fundamental role played by social actors as risk informers (e.g. journalists), risk bearers (e.g. consumers), risk researchers (e.g. economists) and risk regulators (e.g. politicians) as they enter the arena of global news with multiple discursive agendas in the context of the COVID-19 pandemic. By employing this taxonomy of risk-related roles, the authors demonstrate the approach's utility in enabling them to explain how the news media's discursive selection of specific social actors with specific expertise and experiences contributes to making sense of the pandemic's risks and their impacts

from multiple perspectives. The findings also affirm the value of integrating insights from risk communication research with a multimodal discourse analysis approach.

Part IV. Wider communicative meanings/ purposes of COVID-19 discourses

In Chapter 11, **"Stay Alert, Control the Virus, Make Memes": A multimodal discourse analysis of UK internet memes during the COVID-19 pandemic**, **Avery Anapol** illustrates how, during the early phases of the pandemic, internet memes in the UK were a popular means for the public to express dissatisfaction and confusion about the government's public health guidance to "Stay Alert, Control the Virus, Save Lives". Drawing on critical discourse analysis and multimodal social semiotics (e.g. Machin, 2013), and informed by Jenkins' (2006) concept of participatory culture and spreadable media, the author examines the design of a selection of "Stay Alert" internet memes from a multimodal perspective. The analysis surfaces the strategies meme-creators adopt to cope with stress and uncertainty in times of the pandemic, and for expressing dissatisfaction with the government's strategy for combating it. The results show that the analysed memes used humour to frame the UK government's approach to the pandemic as meaningless, confusing or insufficient. While the memes highlighted the government's public safety discourse of "Stay Alert", on the one hand, they simultaneously represented a counter-discourse of a confusing and irrational campaign, on the other. In this way, the analysed memes exemplify how humour can be used effectively to trivialise, and consequently delegitimise and subvert the government's official narrative.

Lastly, considering how distancing policies and mobility restrictions put in place during the COVID-19 pandemic have impacted people's communication and interaction practices and behaviours worldwide, Chapter 12, **Everyday acts of social-semiotic inquiry: Insights into emerging practices from the research collective PanMeMic**, by **Elisabetta Adami** and **Emilia Djonov**, presents the results of a participatory analysis conducted in the collaborative research initiative PanMeMic: Communication and Interaction in the Pandemic and beyond. Drawing on an analytical framework that integrates social semiotics with key principles of citizen sociolinguistics (Rymes, 2021), ethnography and van Leeuwen's (2008) framework for analysing legitimation in discourse, the authors analyse a sample of exchanges that took place on PanMeMic's social media spaces on Facebook, with a view to gaining a better understanding of the dynamics of semiotic practices that are being co-constructed, shared and legitimated. The findings reveal how ordinary laypersons can act as socio-semioticians themselves in not only creating, but also observing, describing, labelling, supporting or opposing, and legitimating and negotiating semiotic practices, thereby co-creating semiotic knowledge.

They also reveal the potential of an engaged, participatory approach to conducting research on multimodality in opening spaces for forms of collective inquiry towards social change.

In summary, the themes and topics around which this book is organised encapsulate the pandemic's effects across different dimensions of society, from the political, to the economic and the social. As can be seen from these chapters, the pandemic has influenced communication patterns via the use of semiotic modes and resources, and media technologies, consequently impacting communicative functions and strategies, and leading to the construction of wider communicative meanings and purposes. Such an influence, we argue, will have long-lasting effects as a result of the continuation of the pandemic, with the disease likely becoming endemic. The phenomena examined in these chapters, such as online learning, citizen sociolinguistics and de-legitimisation through the use of humour, will thus continue to remain relevant in the foreseeable future. With the possibility of future pandemics on the horizon, presenting this collection of COVID-19 discourses for examination to our readers provides us with an opportunity to consider and prepare for issues involving multimodal communication that will likely arise in similar situations to come.

References

Baldry, A., & Thibault, P. (2006). *Multimodal transcription and text analysis*. Equinox.

Bateman, J., Wildfeuer, J., & Hiippala, T. (2017). *Multimodality: Foundations, research and analysis – A problem-oriented introduction*. De Gruyter Mouton. https://doi.org/10.1515/9783110479898

Bounegru, L., & Forceville, C. (2011). Metaphors in editorial cartoons representing the global financial crisis. *Visual Communication*, *10*(2), 209–229.

Coombs, W. T. (2012). Parameters for crisis communication. In W. T. Coombs & S. J. Holladay (Eds.), *The handbook of crisis communication* (pp. 17–53). Wiley-Blackwell.

de Rothewelle, J. C. (2019). Comics and medical narrative: A visual semiotic dissection of graphic medicine. *Journal of Graphic Novels and Comics*, *10*(5–6), 562–588. https://doi.org/10.1080/21504857.2018.1530271

Green, M. J., & Myers, K. R. (2010). Graphic medicine: Use of comics in medical education and patient care. *BMJ*, *340*, c863. https://doi.org/10.1136/bmj.c863

Heath, R. L., & Palenchar, M. J. (2016). Paradigms of risk and crisis communication in the 21st century. In A. Schwarz, M. Seeger, & E. C. Auer (Eds.), *The handbook of international crisis communication research* (pp. 437–446). Wiley-Blackwell.

Hodge, B. (2016). *Social Semiotics for a Complex World: Analysing Language and Social Meaning*. Polity Press.

Hyde, M. (2017). Creating inclusive schools. In M. Hyde, L. Carpenter, & S. Dole (Eds.), *Diversity, inclusion and engagement* (3rd ed., pp. 395–409). Oxford University Press.

Jenkins, H. (2006). *Convergence culture where old and new media collide*. New York University Press.

Jewitt, C. (2016). *The Routledge handbook of multimodal discourse analysis* (2nd ed.). Routledge.

Kress, G. (1985). Ideological structures in discourse. In T. van Dijk (Ed.), *Handbook of discourse analysis* (pp. 27–42). Academic Press.

Kress, G. (2009). *Multimodality: A social semiotic approach to contemporary communication*. Routledge.

Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. Arnold.

Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design* (2nd ed.). Routledge.

Kress, G., & van Leeuwen, T. (2021). *Reading images: The grammar of visual design* (3rd ed.). Routledge.

Machin, D. (2007). *Introduction to multimodal analysis*. Bloomsbury.

Machin, D. (2013). What is multimodal critical discourse studies? *Critical Discourse Studies*, *10*(4), 347–355. https://doi.org/10.1080/17405 904.2013.813770

Machin, D., & Mayr, A. (2012). *How to do critical discourse analysis: A multimodal introduction*. Sage.

Martin, J. R., & White, P. R. (2005). *The Language of evaluation*. Palgrave Macmillan.

Matthiessen, C. M. I. M. (2009). Multisemiosis and context-based register typology: Registerial variation in the complementarity of semiotic systems. In E. Ventola & A. J. Moya Guijjaro (Eds.), *The world told and the world shown: Multisemiotic issues* (pp. 11–38). Palgrave Macmillan.

Norris, S. (2011). *Identity in (inter)action: Introducing multimodal (inter)action analysis*. De Gruyter.

Norris, S. (2014). Modal density and modal configurations: Multimodal actions. In C. Jewitt (Ed.), *Routledge handbook for multimodal discourse analysis* (pp. 86–100). Routledge.

Nyland, J., & Davies, D. (2022). The new normal after coronavirus: Is there anyone here from Education?. In J. Nyland and D. Davies (Eds.), *Curriculum challenges for universities* (pp. 171–188). Springer.

O'Halloran, K. L., Tan, S., & Wignell, P. (2019). SFL and multimodal discourse analysis. In G. Thompson, W. L. Bowcher, L. Fontaine, & D. Schönthal (Eds.), *The Cambridge handbook of systemic functional linguistics* (pp. 433–461). Cambridge University Press.

Raupp, J. J. (2018). Risk Society. In R. L. Heath & W. Johansen (Eds.), *The international encyclopedia of strategic communication*. Wiley-Blackwell.

Rogers, Y. (2020). Is remote the new normal? Reflections on Covid-19, technology, and humankind. *Interactions*, *27*(4), 42–146.

Rymes, B. (2021). *How we talk about language. Exploring citizen sociolinguistics*. Cambridge University Press. https://doi.org/10.1017/9781108770194

Shklovsky, V. (1917/2017). Art as technique. In J. Rivkin & M. Ryan (Eds.), *Literary theory: An anthology* (3rd ed., Vol. 3, pp. 8–14). John Wiley & Sons.

Timotijevic, J. (2020). Society's 'new normal'? The role of discourse in surveillance and silencing of dissent during and post Covid-19. *Social Sciences & Humanities Open*. http://dx.doi.org/10.2139/ssrn.3608576

van Leeuwen, T. (2005). *Introducing social semiotics*. Routledge.

van Leeuwen, T. (2008). *Discourse and practice: New tools for critical analysis*. Oxford University Press.

van Leeuwen, T. (2018a). Legitimation and multimodality. In R. Wodak & B. Forchtner (Eds.), *The Routledge handbook of language and politics* (pp. 218–233). Routledge.

van Leeuwen, T. (2018b). Moral evaluation in critical discourse analysis. *Critical Discourse Studies*, *15*(2), 140–153.

Vyas, L. (2022). "New normal" at work in a post-COVID world: Work–life balance and labor markets. *Policy and Society*, *41*(1), 155–167. https://doi.org/10.1093/polsoc/puab011

World Health Organization. (2020, 29 June). *Listings of WHO's response to COVID-19*. www.who.int/news/item/29-06-2020-covidtimeline

Part I

Use of semiotic modes/ resources in COVID-19 discourses

2 'Stay at home'

Speech acts in Arab political cartoons on the COVID-19 pandemic

Ahmed Abdel-Raheem

Introduction

Since the onset of the coronavirus pandemic, there have been rules and guidelines on mask wearing, social distancing, and working from home. The phrase "Stay home" may be variously performing the giving of advice or a command, according to context. Yet, language is just one semiotic mode of expression alongside many others, including drawings. Is it possible to perform actions by nonverbal means? Across the globe, millions of people have, for instance, clapped and performed music from their windows in support of medical staff fighting the pandemic as part of a worldwide initiative to show unity and support. Is that an example of what John Searle calls *expressive*s, expressing feelings and attitudes, in this case *thanks* or public acts of *acknowledgment*? Most of the examples that speech act theorists use pertain to verbal exchanges between two people. In other words, the prototype form of communication in speech act theory is face-to-face verbal communication. This chapter therefore addresses the question of how speech act theory can be applied to visual and multimodal mass communication. Unfortunately, work in the speech act domain has been largely off the linguistics agenda since the 1970s and 1980s (Levinson, 2017). At this point, it is worth revisiting speech act theory to see how well it applies to multimodal communication.

This study investigates nonverbal and multimodal acts during the coronavirus pandemic. It has a sociocognitive thrust and uses a large-scale corpus of political cartoons. There are at least three good reasons for focusing on the political cartoon genre. First, political cartoons are typically self-contained, stand-alone images where the cartoonist comments on a topical event (Cartoon by Doaa Eladl, 13 June 2020. Beds in hospital). As expressions of opinions, they are thus ideal for the study of pictorial acts of judging. Second, the literature on political cartoons has paid little attention (if any) to the type of opinions a cartoonist wants to express or communicate, reducing moral-political judgements to criticisms. This gap in the literature (i.e. cartoonists' broader evaluative expressions through their drawings) needs to be filled if we want to understand how multi-modal texts (in particular, political cartoons) are produced and interpreted

by human individuals. Third, political cartoonists generally transform a real-life situation or event into an imaginary scenario (Edwards, 1997; El Refaie, 2009). This transformation in itself is a metaphorical process, and therefore it is interesting to examine the relationship between metaphor and action.

The chapter's structure is as follows. First, the terminology and method of analysis are explained, with specific reference to political cartoons. Next, an analysis of the cartoons is provided. All the 250 cartoons were analysed in depth, but only seven examples are presented in this chapter. These were selected as they were particularly striking and illustrative or explicit in terms of their use of speech acts. What is key in all the examples given is the use of humour as a face-saving tactic that mediates the potential offence. The chapter ends with some concluding remarks.

Theoretical framework

Speech acts

In the set of lectures that were reproduced in print as *How To Do Things With Words*, Austin (1962) distinguished what he termed "constatives" from what he called performative sentences or performative utterances or, simply, "performatives". The peculiar thing about the latter is that they are not used just to *say* something, namely, to describe or report or constate something, but rather to *do* an action. For instance, uttering the words "ṭāliq, ṭāliq, ṭāliq" (literally, "divorced, divorced, divorced") is to accomplish the act of divorce in a nation where Islamic law is in force, provided given felicity conditions are met (such as, e.g. being wilfully pronounced by a husband who is not deliberately drunk to his wife, rather than the reverse) (see Langton, 1993). However, this is not so if it is pronounced by a Christian to his wife. This implies that an illocutionary act can be a failure (also known as *"illocutionary disablement"* (Langton, 1993, p. 315)) – or "infelicity" as Austin put it (for a critique, see Levinson, 1983). In this respect, "speech acts may have culturally variable appropriateness conditions" (van Dijk, 2014, p. 202). Indeed, the "freedom from imposition", which has been claimed to be one of the most crucial guiding principles of human interaction (Brown & Levinson, 1987, p. 66), is in fact a value of Anglo-Saxon culture (Wierzbicka, 1985). Interestingly, in Arab-Islamic culture, if a father condemns his daughter's fiancé for kissing his daughter or for holding her hand, we would have no whys, as premarital physical affection is normally associated with badness or haram (cf. Markova, 1978). Finally, in sexual contexts, a woman (in many cultures) sometimes shows a vertical palm for "Stop!" to refuse sex, but it often does not work. Her refusal is either frustrated (i.e. the woman simply fails to achieve the perlocutionary effect she aims at) or disabled (i.e. she fails to perform the very action she intends) (see Langton, 1993).

Austin (1962) acknowledged the possibility of performing illocutionary acts (including warning, ordering, appointing, giving, protesting, apologising, betting or conveyance of property) by nonverbal means. For example, people may protest by cocking a snook, or by hurling a tomato (but compare this latter to revellers at La Tomatina, the world's biggest tomato fight), or (one would say) by burning a flag, or by getting naked. As noted by Novitz (1977), Austin's claim that there are nonverbal, perhaps pictorial, speech acts is a remark about communication in general (see also Pateman, 1980). After all, every culture again seems to have its own "catalogue" of salient kinds of (non-)verbal interactions – or repertoire of characteristic illocutionary acts (see Abdel-Raheem, 2020; Forceville, 2019; Forceville & Kjeldsen, 2018; Goddard & Wierzbicka, 2014; Wierzbicka, 1985).

For scholars such as Nöth (2011), however, pictures lack explicit metasigns, and therefore pictorial acts such as asking a question or warning against a danger can only be "indirect" acts – namely, acts not expressed by means of symbols. Though decidedly nonverbal, markers such as a red crossbar over a picture (expressing forbidden) are at the same time taken to be "extra-diagetic" – they do not represent an integral part of the semantics of the visual mode (Giora et al., 2009; Worth, 1981). In short, "only metasymbols, which are verbal signs, evince explicit metareference, whereas nonverbal signs are essentially implicitly metareferential icons or indices" (Nöth, 2009, p. 108; see also Benveniste, 1974; Hockett & Altmann, 1968). As elementary and explicit metasigns, performative verbs are therefore claimed to be without counterparts in visual or musical signs (p. 114). Nöth goes further, claiming that metaphors (verbal and nonverbal) never say explicitly that they are metaphors and hence can also only be regarded as "implicit" metasigns (see also Mitchell, 1994 on "talking metapictures"; Nöth, 2003; Santaella & Nöth, 1998). This argument fits Searle's (1979) view of metaphors, ironies and indirect speech acts as cases where speaker's meaning or utterance meaning departs from sentence or word meaning in various ways. Since this applies to visual acts no less than to metaphors, one will have ample occasion to come back to it later. Importantly, Searle (1979) devoted a chapter of his book to metaphorical meaning, which he described as "speaker's utterance meaning" (p. 77), illustrating the differences and similarities between literal utterances, metaphorical utterances, ironical utterances and indirect speech acts. For him, the difference between metaphors and indirect speech acts is that in indirect speech acts both the sentence meaning and the indirect meaning are intended to be conveyed, whereas in metaphors the speaker can only intend to convey the latter (cf. Ortony, 1993). In any case, the felicity conditions of performatives (verbal and nonverbal) can more adequately be accounted for in terms of a specific type of embodied (sensorial, emotional) experience models, *dynamic context models*, controlling the production and understanding of discourse (van Dijk, 2014), although van Dijk's position here was not

intended to cover all that I am trying to cover in the present study. I will assume a general acquaintance with van Dijk's basic division of cognitive models into two kinds, as summarised here: (1) 'Semantic' situation models, construed from discourse and observation or experience, and (2) 'pragmatic' context models, representing the communicative situation itself and featuring schematic categories such as Spatiotemporal Settings, Participants (and their identities, roles and relations), Intentions and Goals, Knowledge and so on. Crucially, context models are conditions of discourse (also temporally they mentally precede the actual discourse/ utterance). For instance, to issue an appropriate command, one possible or probable condition of the communicative situation is that the speaker has a power relationship over the recipient. In short, power is relevant for commanding. In the same way, a lack of knowledge of the recipients is relevant for making an assertion (van Dijk, 2014). But power does not have commanding as an effect or consequence (cf. Sperber & Wilson, 1995). Indeed, powerful people may well make a request or suggestion in a given situation. And people may make an appropriate assertion if they think (and that is part of the mental context model they have) their recipients do not have specific knowledge – the fundamental appropriate condition of assertive speech acts. But assertions of new information may also be interactionally or morally inadequate, if the communication of this new information "would hurt or otherwise be against the best interests (face, reputation, health, feelings, etc.) of the speaker and/or the recipients" (van Dijk, 2014, p. 232) – higher-order social norms (or a judge, a professor, a police officer, etc.) demand that speakers tell what they know anyway, however. After all, intentions and intentionality are a topic of hot debate. In this respect, politeness is seen as a 'perlocutionary effect' because it may, but need not, rely on knowing the speaker's intention (Terkourafi, 2001, p. 122). The issue of intention vis-à-vis politeness is particularly complicated because different *usages* of intention (as well as multiple possible understandings of intentions vis-à-vis politeness) are prevalent in the field (Kádár & Haugh, 2013).

Metaphor

Metaphor is a mental process where frame elements (FEs) and inferential structures (Fillmore, 1985) are mapped from one domain of reasoning, the source domain, onto another domain of reasoning, the target domain (e.g. Lakoff & Johnson, 1980; Sweetser, 1987, 1992; Turner, 1987). For example, the conceptual metaphor PANDEMIC AS WAR uses 'war' as a source and 'pandemic' as a target domain (Lakoff & Johnson, 1980). Through a cross-frame mapping, people draw on their understanding of the source domain WAR to reason and talk about the target domain PANDEMIC, using linguistic expressions such as "Lost on the frontline: Thousands of US healthcare workers died fighting COVID-19 in the first year of the pandemic." We have several potential

correspondences between the two conceptual domains, such as between the coronavirus and an enemy, medical personnel and an army, etc. (Semino, 2021).

Because metaphor is a matter of cognition, it structures not only language (e.g. Lakoff & Johnson, 1980; Sweetser, 1987) but also drawing (e.g. Abdel-Raheem, 2019; Forceville, 1996), ritual (Shore 1996; Strauss & Quinn, 1997), gesture (e.g. Cienki & Müller, 2008a) and everyday reasoning (e.g. Casasanto & Jasmin, 2010), including sociopolitical cognition (e.g. Oppenheimer & Trail, 2010). Metaphors also appear in combinations: There are verbo-pictorial metaphors (e.g. Forceville, 1996, 2006; Forceville & Urios-Aparisi, 2009), verbo-gestural metaphors (Müller, 2004) and combinations of differing verbal and gestural metaphors (Cienki, 1998). Metaphoricity is thus "to be conceived of as a general cognitive principle resulting in metaphoric expressions of various modalities as well as in the creation of new conceptual metaphors" (Cienki & Müller, 2008b, p. 493).

The usual and traditional answer to the question of where metaphors come from is that there are either analogical relationships or bodily correlations in experience between the conceptual domains. However, some metaphors emerge neither from resemblance nor from bodily correlations (Kövecses, 2015). For example, some metaphors derive from the world of cinema and entertainment, Greek mythology, literature or from other cultures. This has implications for conceptual metaphor theory. Abdel-Raheem (2021) thus distinguishes between *direct* and *indirect* sources of metaphor, where embodied experience is classified as direct, and discourse or communication (watching TV, reading books and newspapers, etc.) as indirect.

Finally, there is growing evidence that metaphor comprehension is neurally grounded (Feldman, 2006; Gallese & Lakoff, 2005; Narayanan, 1997): Brain areas linked to metaphoric source domains appear to be active during metaphor understanding (e.g. Boulenger et al., 2009; Lacey et al., 2012; although see Raposo et al., 2009). This can be associated mainly with mental models as representations of modal, embodied experiences (van Dijk, 2014).

Metaphor and speech acts

Searle (1979) distinguishes between cases in which literal sentence meaning and speaker's utterance meaning are different and cases where they are the same. Examples of the former kind are metaphorical utterances, ironical utterances and indirect speech acts (cf. Sadock, 1974), as mentioned above. The details of Searle's pragmatic account (in particular, the power of his notion of "calling to mind") are questioned by Morgan (1993), who claims that Searle fails to make a distinction between metaphorical utterances, mistakes, ironic utterances, and a host of other indirect speech acts. For Huttar (1980), metaphors and indirect speech acts are similar in

that their recognition relies first of all on recognising the speaker's intention, a similarity that follows from the idea that metaphor and directness of speech acts are pragmatic notions. A semantic view of metaphor, where metaphors are located primarily at the level of word meanings, is advocated by Cohen (1993). These semantic and pragmatic accounts of metaphor are, however, rejected by some authors, although for different reasons. For instance, the kind of pragmatic approach advocated by Searle is flatly rejected by Glucksberg and Keysar (1993), who describe metaphors as class inclusion statements. Still, this view is at odds with Lakoff and Johnson's (for a debate, see Ortony, 1993).

Similar questions can then also be raised concerning people's understanding of metaphor (Chilton, 1987; Gibbs, 2015): Do listeners really infer greater deliberation and cross-domain mappings when so-called pragmatic signals of metaphor are present? The attention given to the different signals, or turning devices, that sometimes accompany ironic acts or verbal metaphors can then be extended to ask whether non-linguistic or multimodal tropes in general have markers – a question that has not yet attracted enough attention. Raymond Gibbs raises serious doubts about the psychological validity of the notion that some metaphors or ironic acts are created and interpreted as arising from entirely conscious states of mind. For Gibbs (2015), discourse markers (e.g. "well"), comparatives (e.g. "like"), intensifiers (e.g. "actually"), words indicating specific types of meaning (e.g. "literally", "metaphorically") and semantic metalanguage (e.g. "a figure of speech") are not restricted to use with metaphor – as also made clear by Goatly (1997) and Pasma (2011), among others – and therefore cannot give evidence of Steen's (2011, 2013, 2017) "deliberate metaphor" proposal (but see Musolff, 2016, for supporting evidence for deliberate metaphor theory; for further debate on the issue, see Deignan, 2010, 2011; Müller, 2011; for a reply, see Steen, 2017). The relationship between metaphor and deliberateness remains an important, unresolved issue that could benefit from additional experimental research.

Especially relevant for this study are the evaluative qualities of metaphors. Within critical discourse studies, the relationship between metaphor and persuasion has been extensively studied (e.g. Musolff, 2016). For Brown and Levinson (1987), linguistic activity in social life is a series of speech acts that are likely to threaten interactants' 'face' (Goffman, 1967), and metaphor is an important device for mitigating 'face-threatening acts' (FTAs). In his studies of the discourse of unequal encounters, Christopher Candlin at the University of Lancaster took one further step and interpreted Brown and Levinson's model in relation to ideology. Chilton (1987) went another step further and related FTAs to the wider political arena, speaking of critical discourse moments (CDMs) instead – these latter are defined as those acts in discourse that are not aligned with the rights, beliefs or values of either one of the participants or both. Chilton then easily transposed the notion of face and its two

aspects (positive face and negative face) to the political context. Positive and negative politeness techniques are usable for FTA redress: Claiming common ground or sharing of wants and avoiding, hedging or modalising a reference to people involved in FTAs, respectively. Similarly, ideological strategies for negotiating CDMs include legitimation and reification (which can be accomplished by claiming common ground) and dissimulation (which is accomplished by means of verbal avoidance tactics). Many linguistic devices, including metaphor and euphemism, may be employed. In terms of the modi operandi of ideological discourse, metaphor (a cross-frame mapping) is used to legitimise but also to reify, and to a lesser extent to dissimulate (Chilton, 1987). The argument is summarised in Figure 2.1.

Metaphor's evaluative, persuasive and potentially ideological properties have been discussed by researchers in cognitive metaphor theory (e.g. Charteris-Black, 2004; Lakoff & Johnson, 1980; Maalej, 2007). Deignan (2010) proposes four different mechanisms through which metaphor can evaluate: The creation of metaphorical entailments, the employment of metaphorical scenarios, the choice of source domains that suggest shared values between the participants and the mapping of connotations from the source to target domains. For example, a particular negative opinion may be stressed by a catchy metaphor from a defamatory frame (for instance, depicting outgroup members as rats, pigs, snakes, etc.) (see also Edwards, 1997; Sadler, 1980/1981; van Dijk, 1998). Though not all metaphors perform actions, metaphors engaging in political labelling and naming are in general likely to be performatives (Mottier, 2008; but cf. Cohen, 1975; Kittay, 1989; Searle, 1993). Despite the word 'discourse' in the titles of books that deal with conceptual metaphor, cognitive linguistics is clearly concerned with metaphorical sentences, not with larger

Summary of Argument Relating Ideological Discourse to 'Politeness Phenomena', and CDMs to FTAs
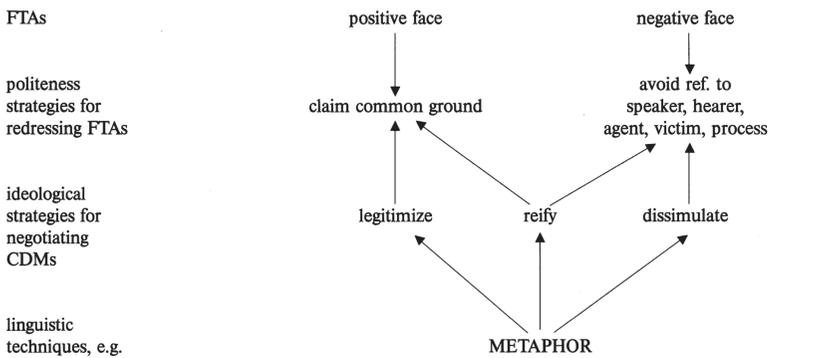
Figure 2.1 Metaphor and speech acts in political discourse.

Source: Chilton (1987, p. 10).

units. Further research into the evaluative and performative qualities of metaphor should also consider visual and multimodal communication. Particularly interesting are also the ways in which metaphor interacts with metonymy in expressions for linguistic action ('metaphtonymy') (Goossens, 1990).

In previous work (2020), I have noted in passing that symbols and metonymies, like performative verbs, are the best way into a systematic investigation of all different types of nonverbal performatives. For example, watches, clocks, hourglasses and other time-telling devices stand metonymically for time and, for the classic metaphor TIME AS SPACE, are material anchors for *timepiece* blends (Fauconnier & Turner, 2002). These devices can be used performatively – namely, to accomplish the action of warning or to issue a prediction that can be assessed as true or false. Consider a cartoon by Dutch cartoonist Tjeerd Royaards originally tweeted on 18 March 2020. The cartoon depicts a healthcare professional wearing a protective suit and presenting a seven-day weather forecast (HEALTH WORKER AS METEOROLOGIST; THE CORONAVIRUS AS THE SUN), with the sun in the shape of a coronavirus particle. The weather is surprisingly warm and sunny. The picture has to do with the fact that you can forecast weather, like cartoons forecast in this case the coronavirus pandemic, but in a more general sense, the future. And like the future, the weather can be bad or good (in cartoons, mostly bad). One creative aspect of the metaphor is that in most other contexts the notion of the sun disappearing behind heavy clouds (or of a cloud passing over the sun) would have negative rather than positive connotations, typically signifying a cloudy future, or gloom and depression. Yet here the sun clearly stands for something undesirable, suggesting the spread of the pandemic. Concerning the illocutionary purpose of predictions, Wierzbicka (1987) notes that they are aimed neither at a specific recipient, as *informing* or *warning* is, nor "at a large and anonymous audience, as *forecasting* is" (p. 514). Importantly, in *predicting*, the speaker seems to be "doing something similar to showing off" (pp. 514–515). Furthermore, *predicting*, unlike *forecasting*, concerns the distant rather than near or immediate future, and, unlike *prophesying*, is based on (methodical) thinking (e.g. inference from general laws). As intriguing pieces of "individual cleverness", *predictions* also differ from *forecasts*, "which are seldom intriguing" (p. 514). Moreover, despite their greater confidence, they lack the credibility that the assumption of expertise, combined with the reference to the knowledge about the present, gives to *forecasting* (p. 520). In this chapter's sociocognitive framework, speech acts are again performed under the control of "cognitive" context categories such as *aims* or *goals*.

In this sense, the distinction between explicit and implicit performatives can be beneficially extended to visual and multimodal artefacts. The former are cases where there are illocutionary force indicating devices (IFIDs), and the latter include all other kinds of images. IFIDs (hence also metonymies) arguably provide a "catalogue" of salient kinds of nonverbal

interactions recognised in a given culture (Abdel-Raheem, 2020). This is an important avenue for further research.

Corpus and methodology

For the compilation of the corpus, 250 coronavirus-related political cartoons were randomly selected from the digital archive of the first Arab satirical magazine *Tomato Cartoon*, which also brings the cream of foreign cartoonists to the Arab world (www.tomatocartoon.com/, accessed 11 March 2021). For ease of interpretation, cartoons from non-Arab countries were excluded.

There were two phases to the analysis: A qualitative stage to identify metaphor and action in context and a quantitative stage to identify the most frequent metaphors and speech acts. Both were done manually.

Multimodal metaphor identification

How may (verbo-)pictorial metaphors be identified in the wild by means of an explicit protocol? The answer to this question is not simple or easy. As indicated by Pérez-Hernández (2019), one cannot retrieve metaphors by means of automatised corpus searches, and hence the analyst still needs to perform metaphor identification manually "despite the inherent risk of subjectivity involved" (p. 539; see also Ahrens, 2019). Although the literature has different methods for identifying and analysing non-verbal and multimodal metaphor (Andriessen et al., 2009; Kaplan 2005; Šorm & Steen, 2018), such procedures are not infallible (for a critical review, see Abdel-Raheem, 2021).

To identify something as a metaphor, I used the following two procedural steps:

Assessment of relevance

Semantic and pragmatic models were identified. The former denote what the image is about, while the latter include contextual parameters such as Settings, Participants, Goals, etc.

Fine-tuning the analysis

a. All core semantic roles, characters, or verbal and pictorial elements (as well as actions and settings) one saw were identified. The targets of a political cartoon may typically include **public figures** coming from real life (such as politicians and footballers), **advocates** for a specific issue or ideology (such as televangelists and feminists) and/or "**John and Jane Q**. Public who are often cast as implied or actual victims of officialdom and its transgressions [e.g. apathetic voters]" (Edwards, 1997, p. 25; emphasis added) – although some

satirical cartoons represent no politicians at all (Charteris-Black, 2019). Similarly, a large number of advertisements portray the use of the **product** promoted, describing "the enviable happiness the product's **user** will experience thanks to it" (Forceville, 2020, p. 91; emphasis added). One's analysis was refined using your generic world knowledge about the standard dress or colour code for these elements if possible; or it was asked whether some of the elements symbolised other elements. For example, someone who wore full PPE – double gloves, a surgical gown, FFP3 face mask and visor or goggles – was typically a **doctor**, and a rider with a spear was usually a **warrior**.

b. The elements or characters that belonged together were clustered and the ones that did not belong were picked out. That is, one asked oneself what was in and out of a semantic field. Then, a disintegrated space was created. If there was only one element that did not belong with the others, it was defined relative to the conceptual frame it activated and it was checked whether it stood for another element. For instance, a syringe dropped by a jet would, in the given context, stand for a vaccine.

c. It was determined whether some elements were distorted or out of place using scientific and historical or cultural knowledge. There could be distortions in size (e.g. a massive COVID-19 with sharp teeth; a larger-than-life syringe), posture or location (e.g. a shoe in a place where a tie would ordinarily be expected; or a politician in a director's chair), etc. This also meant that one must have examined the ways in which the elements interacted and modulated each other. This also included the relative size of and physical distance between characters and their placement or orientation on the page. Following El Refaie, Payson, de Guevara, and Gameiro (2020), should we have a number of visual elements in a design or artwork, "they inevitably enter into spatial relationships with each other" (p. 258) and hence "carry metaphorical meanings that are motivated by embodied spatial experience" (pp. 258–259; see also El Refaie, 2019). Having said that, if two or more characters were blended (based on configurational or physiognomic resemblance or whatever), they also needed to be disintegrated. Finally, a violation was distinguished from a variation. For example, COVID-19 was often shown as being red rather than green in colour, either wholly or in part. This was a variation rather than a violation because there seemed to be little consensus about the virus' colour.

d. It was asked whether one of the identified scenes or parts of it alluded to a famous artwork, historical event, etc. If this was indeed the case, one's analysis of that frame or the level of precision and detail at which the situation was characterised would be updated. In other words, a generic character or element, albeit unnamed or unlabelled in the image, could be gradually 'specified'.

e. Potential correspondences or mappings between elements of the conceptual frames (such as between health professionals and Saint George, between the virus and the dragon, etc.) were identified.

f. If the identified, integrated elements or frames were qualitatively or conceptually different, then that visual unit was marked for metaphor. If the relationship between the two was one of association, often within one conceptual domain (Littlemore, 2015), that visual unit was marked for metonymy.

Identification of nonverbal performatives

The following method of identifying and analysing nonverbal speech acts was used:

Assessing relevance

Semantic and pragmatic relevance were assessed. The former has to do with the knowledge necessary for discourses to be meaningful and relevant for the participants, and the latter with the conditions that affect the situational appropriateness of discourse (van Dijk, 2008), as mentioned earlier.

Fine-tuning the analysis

a. Building on ideas put forward by Leech (2014), it was decided whether the cartoon was *Cartoonist-*, *Viewer-* or *Other*-oriented. Put simply, the target of the political cartoon was identified.

b. One traced what connotations have been mapped from source to target. In our example, the mapped connotations inferred through the cultural reference might be "standing up to aggressors", "sacrifice" and "sanctity".

c. It was determined whether the metaphor or event would be evaluated positively or negatively by the target or addressee (medical personnel). In other words, it was decided whether the picture was face-enhancing or face-attacking. The way to decide about explicit performatives is to check whether there is a performative symbol or metonymy, as laid out earlier. This step was thus also a test for our **performative hypothesis**.

d. The goals of the cartoonist were decided.

Application

One's take on the cartoon in Figure 2.2, where a medic wearing a face visor or shield, in addition to a mask, is depicted as a horseman stabbing COVID-19 with a spear, would be: The cartoon is about the novel coronavirus rather than dragons, and the pragmatic module and its current

Figure 2.2 Metaphor and intertextuality. a. *Tomato Cartoon*, 2 June 2020. Doing medical staff credit. Cartoon by Doaa Eladl. b. A painting of George battling the dragon.

context model contain schematic categories such as a spatio-temporal Setting (e.g. *the Al-Masry Al-Youm* newspaper, 2 June 2020), Participants (cartoonist Doaa Eladl and Egyptian citizens), current Purposes (e.g. applauding or supporting medical staff working on the frontline against the coronavirus), Intentions (e.g. crediting the saving of COVID patients to doctors and nurses) and Knowledge (about the COVID-19 crisis; healthcare professionals; stories about St George, bravery and dragons, etc.). The core pictorial elements of the cartoon include **a man** wearing a medical-grade mask, a surgical gown and other protective equipment, **riding** a dark-green **horse**, brandishing a **spear** and **slaying** the novel **coronavirus**, COVID-19, shown as being green in colour. The caption reads: "All credit to **medical staff**". Clusters of related elements are {medical staff, coronavirus, …} and {warrior, horse, spear, …}. The scene of a rider with a spear alludes to a sixteenth-century polychrome statue of Saint George and the dragon. In this case, {warrior, horse, spear, …} has been updated to {Saint George, horse, spear, the dragon}. The target of the cartoon is a healthcare professional. Obviously, the cartoon carries a positive semantic loading in favour of *O*. It appears to give credit to healthcare professionals for rescuing people from COVID-19.

Performative metaphors in the time of pandemic

In this section, I will show that the drawing of a political cartoon is, or is a part of, the doing of an action, which would not *normally* be described as a criticism, ridicule or as an argument. That is, not only verbal but also visual and multimodal modes of expression can be used to *do* things. The interaction between visual and multimodal metaphor and action will also be analysed. With this in mind, this section presents a quantitative and qualitative analysis of the ways in which metaphors are used by the political cartoonists in my corpus, and how these different uses can be

Metaphor and action during the pandemic
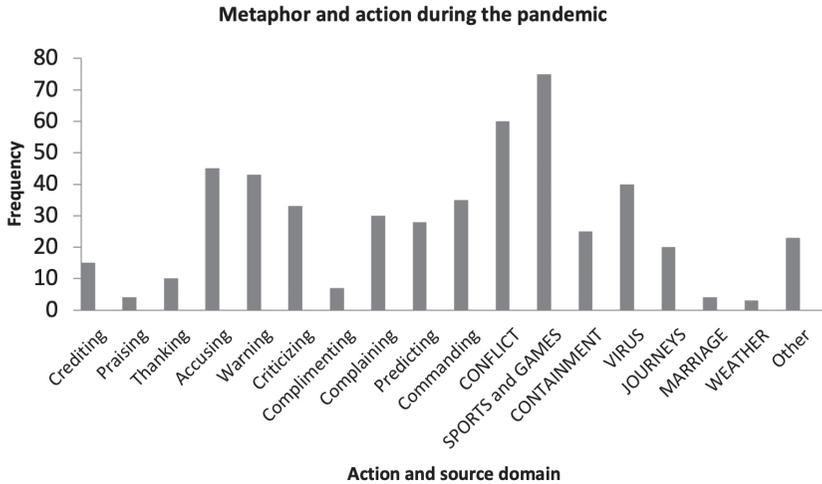
Figure 2.3 Frequency of metaphor and action in my data.

variously interpreted as speech acts. Figure 2.3 summarises the findings for the frequency of speech acts and metaphorical source domains in my corpus.

Accusing

Scientists around the world are working to determine the likely cause and origin of COVID-19 or the truth of claims that the novel coronavirus was man-made. For some, suggestions that the pandemic is a hoax or was started deliberately are the latest chapter in a tale of blame, disinformation, fake news and finger-pointing. Information linking the coronavirus to 5G telecoms or Chinese labs, even if false, is widely shared on social networks. Interestingly, a survey of about 26,000 people in 25 countries designed in collaboration with the *Guardian* found that significant numbers in Turkey, Egypt and Saudi Arabia believed that the virus had not emerged naturally, but had been engineered by the Chinese or US government (Henley & McIntyre, 2020). The survey also showed widespread and significant anti-vaccination sentiment, a matter of serious concern to governments that are roaring ahead with ambitious inoculation drives. This all makes social psychologists wonder why the global pandemic is such fertile ground for conspiracy theories – not only about the origin, but also the severity and prevention of COVID-19.

"Conspiracy theory" **accusations** that COVID-19 is a man-made virus and that it is a scam or new business account for 12 and 33 occurrences respectively, out of a total of 250 cartoons (Figure 2.3). Figure 2.4a, for example, shows the coronavirus sitting at the map table,

flanked by then-Israeli Prime Minister Benjamin Netanyahu and then-US President Donald Trump, echoing wartime photographs of many world leaders and their generals. Although the virus takes its seat at the head of the table, it is Israel and America that seem to decide where the next pandemic will likely emerge. To represent the concepts conveyed by the cartoon, we need a conceptual network in which the elements (Trump and Netanyahu) or the military and political conflict comes from one frame, but the topic (in this case the COVID-19 pandemic) comes from another. Trump and Netanyahu stand metonymically for their countries. The map table stands for war plans. In the metaphorical blend, Israel, the United States and the novel coronavirus (the target or butt of the joke) are wartime leaders sitting at the map table. In other words, Israel, the United States and the virus are personified as a malevolent opponent that creates excessive anxiety. There are further correspondences, such as between the world and potential victims. The cartoonist thus counsels the viewer to mistrust America and Israel. For someone who is familiar with the situation in the Middle East, they also know very well that the United States of America, when it comes to Middle Eastern policies, is not exactly innocent. We need not make the list: The illegal invasion of Iraq in 2003, unwavering support for Israel, whatever it does, and so on. So, if Israel is the arch enemy of the Arab world and America its principal supporter, it is no wonder that much of the Arab world sees the United States as a major responsible actor for the current situation.

   It is worth noting that the acts of *accusing* and *criticising* seem to involve two different kinds of responsibility. As Markova (1978) observes, if proved guilty, the accused, in contrast to the one who is criticised, must be punished. For Fillmore (1971), *accusing* presupposes the badness of the Situation, and *criticising* the factuality of the Situation. Moreover, *accuse*, in contrast to *criticise*, is a performative verb (but cf. Austin, 1962; Searle, 1979; Verschueren, 1980). In *criticising* someone for their behaviour, their acts and so on, the speaker "is expressing a personal opinion" (Wierzbicka, 1987, p. 156). Obviously, however, the opinions of editors or cartoonists are "seldom personal opinions, but opinions that tend to be based on attitudes that are probably widely shared among the readers" (van Dijk, 2014, p. 91). Fillmore (1971) also states that *credit* has the same semantic structure as *accuse* except for having 'GOOD' where *accuse* has 'BAD' (for critiques of this kind of analysis, see Kempson, 1975; Markova, 1978; McCawley, 1975; Wierzbicka, 1987). These categories seem to be necessary but not sufficient dimensions of the meaning potential of *credit* and *accuse*, however (Markova, 1978). More adequately, the appropriateness of the speech act of *accusing* is controlled by the pragmatic module, featuring Setting (*Tomato Cartoon*; 27 February 2020), Participants (Libyan cartoonist Alajili Elabidi, Arab readers), Goals (identifying the origins of the global COVID-19 pandemic) and so on. For Leech (1983), *accusing* belongs to

Figure 2.4 Accusations; WAR and MILKING. a. Cartoon by Alajili Elabidi, 27
February 2020. b. Cartoon by Osama Hajaaj, 22 December 2020.

'conflictive' speech events, where the goal is to cause deliberate offense. The cartoon would, however, be an example of *reasonable hostility* or *appropriate face-attack* (Tracy, 2008).

Similarly, Figure 2.4b (by Jordanian cartoonist Osama Hajaaj, 22 December 2020) depicts the giant pharma company Pfizer as a man squeezing money from a black-and-white cow's udder. The cow is painted to look like the globe. COVID-19's spikes, of course, resemble the cow's teats. This means that physical resemblance plays a rather important role in the creation of the metaphor. There are thus potential correspondences between MILKING A COW BY HAND and PFIZER, such as between the vaccine and the cow's udder, the world and the cow, and exorbitant profits and the milk. That is, the cartoon accuses Pfizer of cashing in on the coronavirus crisis. Another cartoon, by Naji ben Naji (*Tomato Cartoon*, 24 January 2021), depicts a vaccine bottle as a cow reading "Covid-19 vaccine", with automatic suction teats attached to the udder. Both cartoons suggest that pharmaceutical companies such as Pfizer should not profit from the world's most severe crisis since the Second World War. Pfizer's CEO, however, dismissed such suggestions in July 2020 as "radical". But, as put by *Guardian* columnist Owen Jones, a pharmaceutical industry that is as dysfunctional as it is morally bankrupt should not be given kudos (Jones, 2020). The context model of Arab readers may also feature emotions such as anger or fear.

Ordering and warning

People have been officially advised or ordered to stay indoors as much as possible, to wear face masks and to practice social distancing. The stay-at-home orders were particularly frequent at the beginning of the pandemic. They account for 35 occurrences across the overall cartoon corpus. For Leech (1983), the illocutionary act of *advising*, just like *commanding*, tends to be *impositive* or *competitive*. But *advising* is more like telling the addressee what is best for him, rather than trying to get

him to *do* something in the sense that *requesting* or *commanding* is (see also Searle, 1969; van Poppel, 2019). In Leech's (2014) own words, "the action proposed is supposed to be for the benefit of O [i.e. Other], rather than at a cost to O" (p. 204). It thus has both a polite and impolite aspect. The former resides in the promotion of O's interest (*[S]peaker* intends to help O (Generosity Maxim)) and the latter in "the implicit superiority S claims over O, through S's readiness to impose her judgment or opinion on O" (p. 205). As such, says Leech, "on the one hand the Generosity Maxim is upheld, and on the other hand the Opinion-reticence Maxim […] is threatened" (p. 205). Figure 2.5a depicts the coronavirus and 'horror' as a bride and groom respectively (THE CORONAVIRUS AND HORROR AS A MARRIED COUPLE). Addressing the coronavirus from the right-hand side of the cartoon, 'horror' says, "I'm more harmful to health than you". "No, it is me [who is more harmful]", the coronavirus replies. The caption reads: "Stay at home". This is an order that is beneficial to the viewer. The conceptual elements from the MARRIAGE frame thus include wedding and couple. Obviously, the horror of COVID-19 is all too real. The metaphor causes the viewer anxiety, and hence is a warning to the public to stay at home. The parameters of the probable context models of the Participants (*Al-Masry Al-Youm*, Egyptian citizens) of the cartoon are Setting (21 March 2020), speech acts (commands and advice: Stay at home), Aims of the communicative situation (slowing coronavirus spread), etc.

On the other hand, Figure 2.5b features someone holding an umbrella to protect themselves from the COVID-19 rain. The caption reads: "Winter 2020–2021". Hence, there is an analogy mapping between carrying or deploying an umbrella to keep oneself dry and taking or preparing for possible tighter coronavirus measures to keep people safe. It is known that temperatures can affect the virus directly. The cartoon (by female Egyptian cartoonist Samah Farouk) thus warns of an "even more difficult" wave of coronavirus next winter or is a warning that the "worst is

Figure 2.5 Order and warning; MARRIAGE and FORCAST metaphors.
a. Cartoon by Doaa Eladl, 21 March 2020. b. Cartoon by Samah Farouk, 17 November 2020.

yet to come" with COVID-19. As such, the situational category of time in particular serves as a pragmatics-semantics interface, as a device that links current drawing time or time period (expressed by 17 November 2020) with the time of events or actions described (winter 2020–2021). Put another way, "pragmatic" context models and "semantic" event models overlap in the cartoon expression of their contents (see also van Dijk, 2009). This means that "time (Past, Present and Future) is also a contextual condition for certain speech acts" (p. 62). Some might say that the cartoon simultaneously performs the action of *warning* and of issuing a *prediction* that can be assessed as true or false – akin to "I warn you the bull will charge" (Levinson, 1983, p. 234). Again, the appropriateness conditions of (verbo) visual speech acts (and of discourse generally) depend on the context models of the participants (cartoonists/readers).

Thanking and complaining

Figure 2.6a features a female nurse or doctor with an angel's wings (NURSE AS ANGEL) and having a gold crown on top of her head (NURSE AS QUEEN) (for metaphor and nursing, see Rolfe, 2019). The health professional is illustrated against a background of Egypt's flag. The caption reads: "Thank you nurses and doctors of egypt [*sic*]". For Leech (1983, 2014), *thanking* tends to be *convivial*, hence intrinsically *courteous* or polite. Specifically, it exemplifies pos-politeness and is (O)*ther-oriented* – "a move to restore the equilibrium, the balance of comity between people, when one is indebted to the other" (Leech, 2014, p. 197). The normative appropriateness conditions of *thanking* as classically formulated (Searle, 1969) are: (1) Hearer (H) has done something beneficial to Speaker (S), (2) S believes that this past act (A) benefits him or her, and (3) S feels grateful or appreciative for A. Brown and Levinson (1987) list *thanking* among acts that primarily offend S's negative face

Figure 2.6 Thanking vs. *complaining*. a. Cartoon by Samah Farouk, 15 April 2020. b. Cartoon by Doaa Eladl, 13 June 2020. Beds in hospital.

(a Speaker accepts debts, humbling his/her own face). However, speech acts can again be more adequately defined in terms of cognitive context models of the ongoing discourse. This is to say that although signs such as "Thank you" urge positive verbal behaviour, the icon of English and Arabic politeness "Thank you" can be used ironically to assign blame or responsibility for something (see also Culpeper, 2011; Rockwell, 2004). In our example, the cartoonist believes we are in fact indebted to Egyptian healthcare workers (the target of the cartoon) and shows or expresses her gratitude for those working on the frontline of the fight against coronavirus (illocutionary act). The visual compliments or metaphors (HEALTHCARE PROFESSIONAL AS ANGEL-QUEEN) also emphasise the sincerity of the thanks. *By* depicting healthcare professionals as such, the cartoonist has, for example, pleased them (perlocutionary effect).

In contrast, Figure 2.6b features a man in bed, flanked by odalisques, and a genie pulled out of an oil lamp. Addressing the genie, the man says, "I wish I could have a bed in hospital rather than in a royal palace". The genie could not grant him this wish. The man appears to be a COVID-19 patient. As reported by the *Guardian*, hospitals in some countries have run out of beds for the sick (Campbell & Davis, 2020). The cartoon is implicitly a request for more beds. In particular, the cartoonist indirectly complains of neglect (illocutionary act) as hospitals ask patients to self-isolate at home due to a lack of space and beds in intensive care units (ICUs). For Leech (2014), a complaint or criticism of *O*'s behaviour violates the Approbation Maxim. In his words, the verb complain is often employed "to indicate the speaker's annoyance or dissatisfaction with a 'target' who is considered to be guilty of some offense affecting *S* [i.e. Speaker], but who is not *H* [i.e. Hearer] but rather some third party" (pp. 191–192; emphasis in the original). By definition, *complaining* is thus a face-threatening speech act – hence the use of indirectness in this potentially negative act sometimes (Shuy 1998). In their study of the realisation of complaints in Hebrew, Olshtain and Weinbach (1993) found that people tend to use more severe realisations such as warning when the speaker is of higher status than the hearer and when they are equals, however (but cf. Fraser 1998). This only goes to show that a dynamic account of warnings or complaints requires not only more detail in their appropriateness conditions, but also specific cognitive conditions on the type of information that can be expressed and communicated (for an analysis of product liability and warnings, see Shuy (1990, 2008)), as well as social conditions – as represented in context models about the normative and moral dimensions of such illocutionary acts, and the social positions and relations of the actors or participants. The cartoon has used a number of devices to mitigate the face-threatening impact of criticisms or complaints: For example, avoidance of personal reference

and commentary words (such as Egyptian government neglect), the inability of even a supernatural figure appearing from the lamp to ease the burden on hospitals and hospital beds.

Conclusion

Operating within a sociocognitive framework, this chapter considered whether the notion of "speech acts" can be usefully extended to non-linguistic artefacts and behaviours. Specifically, it presented the results of a sociocognitive study of cartoon acts of judging pertaining to the COVID-19 pandemic, including *crediting*, *thanking*, *accusing* and *warning*. The chapter has also examined the relationship between metaphor and action. The overall aim was thus twofold: To consider whether speech act theory can be extended to visual and multimodal mass communication and to show that current cartoon studies need to go beyond classical definitions of cartoons in terms of negative comments. There are several instances of performative metaphors in my data that urge positive behaviours. For example, many cartoons thank health workers for their efforts and sacrifices fighting the coronavirus outbreak.

In general, cartoon scholars and cognitivists in various disciplines should find the phenomenon of multimodal metaphor and action pertinent to their concerns. Future research into other (sub)categories of non-verbal speech acts will certainly yield new aspects of editorial cartooning and political actions that have hitherto been downplayed in verbal and verbo-pictorial contexts.

References

Abdel-Raheem, A. (2019). *Pictorial framing in moral politics: A corpus-based experimental study*. Routledge.

Abdel-Raheem, A. (2020). Mental model theory as a model for analysing visual and multimodal discourse. *Journal of Pragmatics*, *155*, 303–320.

Abdel-Raheem, A. (2021). Where Covid metaphors come from: Reconsidering context and modality in metaphor. *Social Semiotics*, https://doi.org/10.1080/10350330.2021.1971493

Ahrens, K. (2019). First Lady, Secretary of State and Presidential Candidate: A comparative study of the role-dependent use of metaphor in politics. In J. Perez, M. Reuchamps, & P. H. Thibodeau (Eds.), Variation in political metaphor (pp. 13–34). John Benjamins.

Andriessen, D., Kliphuis, E., McKenzie, J., and Van Winkelen, C. (2009). Pictures of knowledge management, developing a method for analysing knowledge metaphors in visuals. *Electronic Journal of Knowledge Management*, 7, 405–415.

Austin, J. L. (1962). *How to do things with words*. Harvard University Press.

Benveniste, E. (1974). Sémiologie de la langue [1969]. *Semiotica*, *1*(1–12), 127–135.

Boulenger, V., Hauk, O., & Pulvermüller, F. (2009). Grasping ideas with the motor system: Semantic somatotopy in idiom comprehension. *Cerebral Cortex*, *19*, 1905–1914.

Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage*. Cambridge University Press.

Campbell, D., & Davis, N. (2020, December 17). NHS hospitals running out of beds as Covid cases continue to surge. *The Guardian*. www.theguardian.com/world/2020/dec/17/nhs-hospitals-running-out-of-beds-as-covid-cases-continue-to-surge

Casasanto, D., & Jasmin, K. (2010). Good and bad in the hands of politicians: Spontaneous gestures during positive and negative speech. *PLoS ONE*, *5*(7), e11805. https://doi.org/10.1371/journal.pone.0225175

Charteris-Black, J. (2004). *Corpus approaches to critical metaphor analysis*. Palgrave Macmillan.

Charteris-Black, J. (2019). *Metaphors of Brexit: No cherries on the cake*. Palgrave.

Chilton, P. (1987). Metaphor, euphemism, and the militarization of language. *War, Peace, Culture*, *10*, 7–19.

Cienki, A. (1998). Metaphoric gestures and some of their relations to verbal metaphorical expressions. In J.-P. Koenig (Ed.), *Discourse and cognition: Bridging the gap* (pp. 189–204). CSLI Publications.

Cienki, A., & Müller, C. (2008a). *Metaphor and gesture*. John Benjamins.

Cienki, A., & Müller, C. (2008b). Metaphor, gesture, and thought. In R. W. Gibbs (Ed.), *The Cambridge handbook of metaphor and thought* (pp. 483–501). Cambridge University Press.

Cohen, L. J. (1993). The semantics of metaphor. In Ortony, A. (Ed.), *Metaphor and thought* (pp. 58–70). Cambridge University Press.

Cohen, T. (1975). Figurative speech and figurative acts. *Journal of Philosophy*, *72*(19), 669–684.

Culpeper, J. (2011). *Impoliteness: Using language to cause offence*. Cambridge University Press.

Deignan, A. (2010). The evaluative properties of metaphors. In Z. Todd, A. Deignan, & L. Cameron (Eds.). *Researching and applying metaphor in use* (pp. 357–373). John Benjamins, Amsterdam/Philadelphia.

Deignan, A. (2011). Deliberateness is not unique to metaphor. A response to Gibbs. *Metaphor and the Social World*, *1*, 57–60.

Edwards, J. L. (1997). *Political cartoons in the 1988 presidential campaign: Image, metaphor, and narrative*. Garland.

El Refaie, E. (2009). Metaphor in political cartoons: Exploring audience responses. In C. Forceville & E. Urios-Aparisi (Eds.), *Multimodal metaphor* (pp. 173–196). Mouton de Gruyter.

El Refaie, E. (2019). *Visual metaphor and embodiment in graphic illness narratives*. Oxford University Press.

El Refaie, E., Payson, A., Bliesemann de Guevara, B., & Gameiro, S. (2020). Pictorial and spatial metaphor in the drawings of a culturally diverse group of women with fertility problems. *Visual Communication*, *19*(2), 257–280.

Fauconnier, G., & Turner, M. (2002). *The way we think: Conceptual blending and the mind's hidden complexities*. Basic Books.

Feldman, J. (2006). *From molecule to metaphor: A neural theory of language*. MIT Press.

Fillmore, C. (1971). Verbs of judging: an exercise in semantic description. In C. Fillmore and D. T. Langendoen (Eds.), *Studies in linguistic semantics* (pp. 272–296). Holt, Rinehart and Winston.

Fillmore, C. J. (1985). Frames and the semantics of understanding. *Quaderni di Semantica*, 6, 222–254.

Forceville, C. (1996). *Pictorial metaphor in advertising*. Routledge.

Forceville, C. (2006). Non-verbal and multimodal metaphor in a cognitivist framework: Agendas for research. In G. Kristiansen, M. Achard, R. Dirven, & F. Ruiz de Mendoza Ibàñez (Eds.), *Cognitive linguistics: Current applications and future perspectives* (pp. 379–402). Mouton de Gruyter.

Forceville, C. (2019). *Reflections on the creative use of traffic signs*. In A. Benedek & K. Nyíri (Eds.), *Image and metaphor in the new century* (*Perspectives on Visual Learning Vol. 3*) (pp. 103–113). Budapest University of Technology and Economics, Hungarian Academy of Sciences.

Forceville, C. (2020). *Visual and multimodal communication: Applying the relevance principle*. Oxford University Press.

Forceville, C., & Kjeldsen, J. E. (2018). The affordances and constraints of situation and genre: Visual and multimodal rhetoric in unusual traffic signs. *International Review of Pragmatics*, *10*(2), 158–178. https://doi.org/10.1163/18773109-01002002

Forceville, C., & Urios-Aparisi, E. (Eds.). (2009). *Multimodal metaphor*. Mouton de Gruyter.

Fraser, B. (1998). Threatening revisited. *Forensic Linguistics*, *5*(2), 159–173.

Gallese, V., & Lakoff, G. (2005). The brain's concepts: The role of the sensory-motor system in conceptual knowledge. *Cognitive Neuropsychology*, *22*(3/4), 455–479.

Gibbs, R. (2015). Do pragmatic signals affect conventional metaphor understanding? A failed test of deliberate metaphor theory. *Journal of Pragmatics*, *90*, 77–87.

Giora, R., Heruti, V., Metuki, N., & Fein, O. (2009). "When we say no we mean no": Interpreting negation in vision and language. *Journal of Pragmatics*, *41*, 2222–2239.

Glucksberg, S., & Keysar, B. (1993). How metaphors work. In A. Ortony (Ed.), *Metaphor and thought* (pp. 401–424). Cambridge University Press.

Goatly, A. (1997). *The language of metaphors*. London.

Goddard, C., & Wierzbicka, A. (2014). *Words and meanings: Lexical semantics across domains, languages and cultures*. Oxford University Press.

Goffman, E. (1967). *Interactional ritual: Essays on face-to-face behavior*. Anchor Books.

Goossens, L. (1990). Metaphtonymy: The interaction of metaphor and metonymy in expressions for linguistic action. *Cognitive* Linguistics, *1*(3), 323–340.

Henley, J., & McIntyre, N. (2020, October 26). Survey uncovers widespread belief in "dangerous" Covid conspiracy theories. *The Guardian*. www.theguardian.com/world/2020/oct/26/survey-uncovers-widespread-belief-dangerous-covid-conspiracy-theories

Hockett, C., & Altmann, S. (1968). A note on design features. In T. A. Sebeok (Ed.), *Animal Communication* (pp. 290–322). Indiana University Press.

Huttar, L. G. (1980). Metaphorical speech acts. *Poetics*, 9, 383–401.

Jones, O. (2020, November 12). The Covid vaccine will benefit humanity – we should all own the patent. *The Guardian*. www.theguardian.com/commentisfree/2020/nov/12/covid-vaccine-patent-pharmaceutical-industry-profits-public-sector

Kádár, D. Z., & Haugh, M. (2013). *Understanding politeness*. Cambridge University Press.

Kaplan, S.J. (2005). Visual metaphors in print advertising for fashion products. In K. Smith, S. Moriarty, G. Barbatsis, & K. Kenney (Eds.), *Handbook of visual communication: Theory, methods, and media* (pp. 167–177). Lawrence Erlbaum Associates.

Kempson, R. M. (1975). *Presupposition and the delimitation of semantics*. Cambridge University Press.

Kittay, E. F. 1989. *Metaphor: Its cognitive force and linguistic structure*. Oxford University Press.

Kövecses, Z. (2015). *Where metaphors come from: Reconsidering context in metaphor*. Oxford University Press.

Lacey, S., Stilla, R., & Sathian, K. (2012). Metaphorically feeling: Comprehending textural metaphors activates somatosensory cortex. *Brain and Language*, *120*(3), 416–421.

Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. University of Chicago Press.

Langton, R. (1993). Speech acts and unspeakable acts. *Philosophy and Public Affairs*, *22*, 305–330.

Leech, G. (1983). *Principles of pragmatics*. Longman.

Leech, G. (2014). *The pragmatics of politeness*. Oxford University Press.

Levinson, S. C. (1983). *Pragmatics*. Cambridge University Press.

Levinson, S. C. (2017). Speech acts. In Y. Huang (Ed.), *Oxford handbook of pragmatics* (pp. 199–216). Oxford University Press.

Littlemore, J. (2015). Metonymy: Hidden shortcuts in language, thought, and communication. Cambridge University Press.

Maalej, Z. (2007). Doing critical discourse analysis with metaphor: Towards a discourse model of metaphor. In C. Hart & D. Lukes (Eds.), *Cognitive linguistics in critical discourse analysis* (pp. 132–158). Cambridge Scholars Publishers.

Markova, I. (1978). Verbs of judging and the acts of judging. In R. N. Campbell & P. Smith (Eds.), *Recent advances in the psychology of language* (pp. 163–170). Plenum Press.

McCawley, J. D. (1975). Verbs of bitching. In D. Hockney, W. Harper, & B. Freed (Eds.), *Contemporary research in philosophical logic and linguistic semantics* (pp. 313–332). D. Reidel.

Mitchell, W. J. T. (1994). *Picture theory*. Chicago University Press.

Morgan, J. L. (1993). Observations on the pragmatics of metaphor. In A. Ortony (Ed.), *Metaphor and thought* (pp. 124–134). Cambridge University Press.

Mottier, V. (2008). Metaphors, mini-narratives and Foucauldian discourse theory. In T. Carver & J. Pikalo (Eds.), *Political language and metaphor: Interpreting and changing the world* (pp. 182–194). Routledge.

Müller, C. (2004). The palm-up-open-hand: A case of a gesture family? In C. Müller & R. Posner (Eds.), *The semantics and pragmatics of everyday gestures* (pp. 233–256). Weidler Verlag.

Müller, C. (2011). Are "deliberate metaphors" really deliberate? A question of human consciousness and action. *Metaphor and the Social World*, *1*, 61–66.

Musolff, A. (2016). Cross-cultural variation in deliberate metaphor interpretation. *Metaphor and the Social World*, 6, 205–224.

Narayanan, S. (1997). *KARMA: Knowledge-based active representations for metaphor and aspect*. [Unpublished doctoral thesis]. University of California.

Nöth, W. (2003). Press photos and their captions. In H. Lönnroth (Ed.), *Från Närpesdialekt till EU-Svenska: Festskrift till Kristina Nikula* (pp. 169–188). Tampere University Press.

Nöth, W. (2009). Metareference from a semiotic perspective. In W. Wolf (Ed.), *Metareference across media: Theory and case studies* (pp. 89–134). Rodopi.

Nöth, W. (2011). Visual Semiotics: Key Features and an Application to Picture Ads. In E. Margolis, & L. Pauwels (Eds.), *The Sage Handbook of Visual Research Methods* (pp. 298–316). Sage.

Novitz, D. (1977). *Pictures and their use in communication*. Martinus Nijhoff.

Olshtain, E., and Weinbach, L. (1993). Interlanguage features of the speech act of complaining. In G. Kasper & S. Blum-Kulka (Eds.), *Interlanguage Pragmatics* (pp. 108–122). Oxford University Press.

Oppenheimer, D., & Trail, T. (2010). Why leaning to the left makes you lean to the left: Effect of spatial orientation on political attitudes. *Social Cognition*, *28*(5), 651–661.

Ortony, A. (Ed.). (1993). *Metaphor and thought*. Cambridge University Press.

Pasma, T. (2011). *Metaphor and register variation: The personalization of Dutch news discourse*. Box Press.

Pateman, T. (1980). How to do things with images: An essay on the pragmatics of advertising. *Theory and Society*, *9*(4), 603–622.

Pérez-Hernández, L. (2019). XL burgers, shiny pizzas, and ascending drinks: Primary metaphors and conceptual interaction in fast-food printed advertising. *Cognitive Linguistics*, *30*, 531–570.

Raposo, A., Moss, H., Stamatakis, E., & Tyler, L. (2009). Modulation of motor and premotor cortices by actions, action words and action sentences. *Neuropsychologia*, 47, 388–396.

Rockwell, P. (2004). The sarcastive: A linguistic and paralinguistic analysis. Language and Social Interaction Division, International Communication Association. *Annual Convention*, May 2004. New Orleans, Louisiana.

Rolfe, G. (2019). Big ideas: New metaphors for nursing (1): The nurse as musician. *Nurse Education Today*, 72, 97–99.

Sadler, J. D. (1980/1981). Metaphor and metonymy. *The Classical Journal*, 76, 157–160.

Sadock, J. (1974). *Toward a linguistic theory of speech acts*. Academic Press.

Santaella, L., & Nöth, W. (1998). Imagem: Cognição, semiótica, mídia. São Paulo: Iluminuras.

Searle, J. (1969). *Speech acts: An essay in the philosophy of language*. Cambridge University Press.

Searle, J. (1979). Expression and meanings. Cambridge University Press.

Searle, J. (1993). Metaphor. In A. Ortony (Ed.), *Metaphor and thought* (pp. 83–111). Cambridge University Press.

Semino, E. (2021). "Not soldiers but fire-fighters"– Metaphors and Covid-19. *Health Communication*, *36*(1), 50–58.

Shore, B. (1996). *Culture in mind: Cognition, culture, and the problem of meaning*. Oxford University Press.

Shuy, R. W. (1990). Warning labels: Language, law and comprehensibility. *Speech*, *65*, 291–303.

Shuy, R. W. (1998). *Bureaucratic language in government and business*. Georgetown University Press.

Shuy, R. W. (2008). *Fighting over words: Language and civil law cases*. Oxford University Press.

Sperber, D., & Wilson, D. (1995). *Relevance theory: Communication and cognition*. 2nd ed. Oxford: Blackwell.

Steen, G. (2011). What does "really deliberate" really mean? More thoughts on metaphor and consciousness. *Metaphor and the Social World*, *1*, 53–56.

Steen, G. (2013). Deliberate metaphor affords conscious metaphorical cognition. *Cognitive Semiotics*, *5*, 179–197.

Steen, G. (2017). Deliberate metaphor theory: basic assumptions, main tenets, urgent issues. *Intercultural Pragmatics*, *14*, 1–24.

Strauss, C., & Quinn, N. (1997). *A cognitive theory of cultural meaning*. Cambridge University Press.

Sweetser, E. (1987). Metaphorical models of thought and speech: A comparison of historical directions and metaphorical mappings in the two domains. In *Proceedings of the Thirteenth Annual Meeting of the Berkeley Linguistics Society* (pp. 446–459). Berkeley Linguistics Society.

Sweetser, E. (1992). English metaphors for language: Motivations, conventions, and creativity. *Poetics Today*, *13*(4), 705–724.

Šorm, E., & Steen, G. J. (2018). VISMIP: towards a method for visual metaphor identification. In G. J. Steen (Ed.), *Visual metaphor: Structure and process* (pp. 47–88). John Benjamins.

Terkourafi, M. (2001). Politeness in Cypriot Greek: A frame-based approach. [Unpublished PhD dissertation]. University of Cambridge.

Tracy, K. (2008). Reasonable hostility: Situation-appropriate face-attack. *Journal of Politeness Research*, *4*(2), 169–191.

Turner, M. (1987). *Death is the mother of beauty: Mind, metaphor, criticism*. University of Chicago Press.

van Dijk, T. (1998). *Ideology: A multidisciplinary approach*. Sage.

van Dijk, T. (2008). *Discourse and context: A socio-cognitive approach*. Cambridge University Press.

van Dijk, T. (2009). *Society and discourse: How social contexts influence text and talk*. Cambridge University Press.

van Dijk, T. (2014). *Discourse and knowledge: A sociocognitive approach*. Cambridge University Press.

van Poppel, L. (2019). Anticipating resistance to health advice: A speech act perspective. *Discourse Processes*, *56*(3), 256–269. https://doi.org/10.1080/01638 53X.2018.1470440

Verschueren, J. (1980). On speech act verbs. John Benjamins.

Wierzbicka, A. (1985). Different cultures, different languages, different speech acts: Polish vs. English. *Journal of Pragmatics*, *9*, 145–178.

Wierzbicka, A. (1987). *English speech act verbs: A semantic dictionary*. Academic Press.

Worth, S. (1981). *Studying visual communication*. University of Pennsylvania Press. http://astro.temple.edu/_ruby/wava/worth/svscom.html.

3 Communication as 'graphic medicine'

A multimodal social semiotic approach

Marissa K. L. E and Sabine Tan

Introduction

On 23 January 2020, Singapore announced its first confirmed case of COVID-19. Approximately two weeks later, the level of alert in the country was raised to Disease Outbreak Response System Condition (Dorscon) orange, indicating that the outbreak had been assessed by the state to have moderate to high public health impact (Chong, 2021). While Singapore had managed to contain the disease in the early months of the outbreak, tapping on its experience with severe acute respiratory syndrome (SARS) in 2003 and other smaller scale outbreaks of H1N1 in 2009 and Zika in 2016 (Tan et al., 2020), a significant increase in infections in early March 2020 led to the implementation of a "circuit breaker" on 7 April 2020 (Ministry of Health, 2020). A raft of measures was implemented during this "circuit breaker" period aimed at breaking the train of transmission of the disease. Schools and workplaces were closed, with only shops dealing in essential services, such as supermarkets, allowed to open.

Since the initiation of the "circuit breaker" and its gradual phased lifting from 1 June 2020, case numbers had started to come down. A small number of community cases were reported each day, which saw life in Singapore returning to some degree of normalcy, though with restrictions and measures meant to counter and prevent the spread of COVID-19 still in place, for instance a limit on group numbers to a maximum of eight and the legal enforcement of mask wearing in public. However, the numbers of imported cases[1] continued to cause concern (Ng & Woo, 2020).

At the point at which the chapter is being written, the COVID-19 pandemic remains ongoing without any clear indication of it ending. There have been further measures taken since the lifting of the "circuit breaker" in response to the ever-evolving pandemic situation. For example, the limit on group numbers has been reduced to five. Essentially, the Singapore government has continued to respond as it deems necessary to the ever-changing nature of the pandemic. However, since the data examined here is confined only to 2020, we will not provide further information

describing the pandemic situation in Singapore beyond 2020 since this would unlikely be relevant to the chapter.

As has been shown by the experiences of many countries, managing the COVID-19 pandemic situation is a challenging one. The complexity of interdependent factors from multiple domains in a variety of dynamic social contexts, including the unpredictability of virus mutations giving rise to possibly more virulent variants, means that countries would need to adopt a multipronged approach in their strategies for managing the pandemic. Overcoming the pandemic thus requires a variety of measures cutting across different social areas. For example, Yip et al. (2021) have argued that, despite Singapore's attempts to respond to the COVID-19 pandemic by shoring up its healthcare and surveillance systems, more needs to be done to build community resilience within Singapore society, with community resilience defined as "the sustained ability of a community to withstand and recover from adversity" (Chandra et al., 2011). Yip and her co-authors identified several factors involved in the building of community resilience, namely, physical and psychological health, communication, social connectedness, integration and involvement of organisations, civic-mindedness and social responsibility. We focus in this chapter on the factor of communication, examining how comics as educational illustrations work semiotically to educate and engage the public to increase awareness of important, up-to-date information about the virus, which can then empower individuals to make decisions and act in ways that enable not just their own health, safety and well-being, but of the community around them too (J. M. Lim et al., 2021). Specifically, this study seeks to investigate how public health information about the COVID-19 virus is communicated to the Singapore populace via the comic medium using a multimodal social semiotic theoretical approach.

Following from here, we describe how the Singapore government has communicated COVID-19-related information to the public, providing some indicators of its success in this area. The structural advantages benefiting the Singapore government in its management of the pandemic will also be discussed. The role of comics in public health communication is then described in general before focusing on the use of comics in the current COVID-19 pandemic. From there, we lay out the theoretical approach used in this chapter. We then describe the data to be used, present our analyses and discuss how the co-deployment of semiotic resources acts to achieve communicative aims that enable the effective utilisation of comics as graphic medicine in the fight against COVID-19.

Singapore public health communication of COVID-19-related information

The Singapore government has made public education and communication of accurate COVID-19-related information a key strategy in countering inaccurate information and motivating the public to adopt

practices and accept measures by the state that are meant to manage the pandemic in the country (Abdullah & Kim, 2020). This is in line with the Organisation for Economic Co-operation and Development's (OECD) policies encouraging effective COVID-19 public communication strategies that provide evidence-based, accurate and truthful information with transparency; address misleading or false information; focus on responsible consumption and dissemination of information to address public fears, concerns and expectations; and allow for citizen participation to help the state manage the pandemic (OECD, 2020). Besides traditional forms of media, the Singapore government has also utilised social media to transmit COVID-19-related information (Wong et al., 2020). In addition, the Singapore state can use the Protection from Online Falsehoods and Manipulation Act (POFMA) to act against persons or sources that provide inaccurate COVID-19-related information.

In general, Singaporeans appear to be less susceptible to inaccurate and misleading COVID-19-related information. Long et al.'s (2021) study on the vulnerability of Singaporeans to rumours about the COVID-19 pandemic showed that few participants shared or believed these rumours. However, the article did mention that, in some instances, participants admitted sharing such rumours even though they did not believe them. Another study by J. M. Lim and colleagues (2021) showed that Singaporeans felt well informed about COVID-19-related information such as the virus' symptoms and saw themselves as exhibiting high self-efficacy, for example, having sufficient information on what to do and how to protect their family members from infection, and adequate understanding of why the Singapore state has taken certain actions to prevent the spread of the disease. A study by V. W. Lim et al. (2021) also reported high levels of trust in official government sources of information, evidencing the effectiveness of the public health communication efforts implemented by the state.

The need for scientifically accurate COVID-19-related information is one that has been constantly and continually stressed since the start of the pandemic, and in the case of Singapore, there are structural advantages that influence the efficacy of the state's response to COVID-19. Firstly, the dominance of the Singapore state in many sectors of Singapore society facilitates, to a large degree, the implementation of COVID-19 measures. Secondly, the state-sanctioned practice of communitarianism as a means of maintaining the social unity needed to ensure the continued survival and success of the nation means that non-conforming individuals are more often than not taken to task for not following measures put in place to prevent the spread of the COVID-19 virus (Lee, 2020). Thirdly, the emphasis on technocratic, efficient policy-making in Singapore politics has the effect of imbuing policies with a scientific, rational basis (Jones & Brown, 1994), which quite likely makes them more palatable despite restrictions that may significantly impact personal freedoms. Finally, other structural considerations advantaging the state include the small

size of the country and the high rates of internet connectivity and high-speed internet access (Abdullah & Kim, 2020).

However, this is not to say that Singapore's experience with managing COVID-19 has been entirely smooth sailing. One of the more pressing challenges facing the country is how it can reopen, with a reopening seen as essential to the country's economic prospects (Gwee et al., 2021). Implementing border controls to manage the flows of people into the country has proven difficult, and Singaporeans have expressed their dissatisfaction with border control measures, especially during periods marked by surges in COVID-19 infection numbers in the country (Fong, 2021). Such sentiments are important, as Mathews et al. (2021) have argued, showing how the Singapore populace's expectations of low numbers of deaths and infections from COVID-19 infection potentially play a significant role in their assessment of the efficacy of the government's handling of the pandemic. Such expectations, Mathews and his co-authors conclude, require a "slower and calibrated opening" (pp. 75–76) of the country. With so much remaining unknown about the pandemic, it remains to be seen how such a "slower and calibrated opening" can be executed, and if it can be executed to meet the expectations of Singaporeans.

Nonetheless, in general, it can be argued that Singapore has coped well with the COVID-19 pandemic (Lai, 2021), though it remains to be seen how the current heightened state of alert would impact Singaporeans' perceptions of their safety and security and the role of the state in managing the ongoing pandemic. Public health communication strategies as enacted by the state and its institutions can thus be said to have played a role in this generally positive outlook (J. M. Lim et al., 2021).

Comics and public health communication

Comics have played a part in the visual culture of medicine since the eighteenth century, with some of the earliest comics focusing on public health issues in the form of morality tales (Callender et al., 2020). Current manifestations of this genre in public health communication include graphic illness narratives (Green & Myers, 2010) and educational material for informative purposes (Mazumdar & Pantaleo, 2017), with these varied manifestations falling under the field of graphic medicine – an interdisciplinary area of study that "encompasses the creation, use, and study of comics in medicine and health" (Callender et al., 2020, p. 1061; see also Green & Myers, 2010).

The advantages of comics as a medium to communicate public health information stem primarily from how comics utilise the form of a visual narrative to enable active reader participation. Such engagement facilitates sensemaking of the narrative as it moves from one panel of the comic to the next. Moreover, these visual narratives usually involve the interaction of text and image. In their review of the literature on the employment of text and pictures in health communication messages, Houts et al. (2006)

found that the co-deployment of text and image helped to attract audience attention to the message, facilitate understanding of the message, and influence both the attitudes towards the message being communicated and the intent to act after reading the message. Also, with the use of both text and visuals, strategies such as visual metaphor (e.g. see Abdel-Raheem, Chapter 2, this volume) can be employed together with text to facilitate understanding of complex and abstract information (El Rafaie, 2019; Saji et al., 2021). In addition, using the narrative form can help provide an affective quality, which is useful for fostering empathy, for example, via character identification (Keen, 2006). Furthermore, the utilisation of space to display the visual narrative is such that the reader can take the time needed to process the flow of meaning, going back and forth as necessary (Yang, 2008). Finally, concepts communicated by the comic can be developed incrementally through the series of panels. This is useful especially when there is complex and abstract information being communicated that may require some unpacking.

Besides the advantages afforded by its utilisation of a visual narrative facilitated by the co-deployment of text and image, comics can help to model behaviours required for public health interventions and their outcomes in "an emotionally engaging but safe environment". This helps readers learn both positive and negative outcomes if the behaviours encouraged are followed or otherwise, respectively (Kearns & Kearns, 2020, p. 140). However, this last advantage is one that needs to be carefully calibrated depending on the purpose of the comic since emotionally charged healthcare information may not be beneficial in certain instances, for example, when balanced information is required for patient decision-making (Kearns & Kearns, 2020).

The above list is by no means an exhaustive one. Essentially, using comics as a medium offers a wide range of advantages that align with the visual, textual and aesthetic characteristics of the medium that "can depict and articulate spatial, temporal, and relational aspects...in ways that may be more challenging for other media to portray" (Callender et al., 2020, p. 1061). Although Callender and co-authors refer specifically to the pandemic here, it is likely that this advantage is primarily why comics as a public health communication platform have been utilised for over 200 years. Its contribution to our understanding of health and illness is unique because of how it offers affordances, or possibilities of semiotic meaning, that other communication platforms would find challenging to portray.

Despite the above advantages, there are also potential disadvantages with the use of comics to communicate health information. Ashwal and Thomas (2018) point out the need for the expert review of content communicated in the comic medium to ensure the accuracy of information presented. They also mention how the medium may not necessarily lend itself to effective communication if the audience perceives its use as irrelevant, inappropriate and ineffective. They note how such views stem

from a common perception of comics as being humorous and thus less 'serious' and useful as a means of communicating health information.

However, in an unprecedented pandemic situation, it can be argued that the comic medium does offer advantages. For example, the dynamic nature of the pandemic situation requires the timely and effective dissemination of information that facilitates heuristic decision-making (see next section). Such heuristic decision-making plays a crucial role in getting a populace to align their actions with what is required as part of pandemic control measures. While there is the perception of comics as a non-serious medium, the need to communicate important public health information quickly and accessibly means that there is not much time that can be afforded to cognitive rationalisation and debate, though this is not to say that such discussions are unimportant and unnecessary. The dissemination of information is primarily to encourage appropriate and necessary behaviours in the face of an ever-evolving pandemic situation, and it is for this purpose that the comic medium can be leveraged.

Comics and COVID-19 public health communication

With their popularity, accessibility and familiarity as a medium, and proven effectiveness as public health communication material (McNicol, 2017), comics are seen as "important contributors to the visual culture of the COVID-19 pandemic" (Callender et al., 2020, p. 1061). Comics play an especially important role in the formation of an "outbreak narrative" (Wald, 2008) as a means for the layperson to understand how a particular virus begins and spreads, including the political, social and scientific actions taken in response. The construction of an outbreak narrative is thus a cultural response, reflective of how societies process, reflect on and understand contagion in ways that impact the actions they take and the ideas they communicate about the contagion. It is important to bear in mind that this construction of meaning is often problematic, involving a space where meanings are not only created, but also contested as well. Inaccurate information about the COVID-19 abounds, especially online (van der Linden et al., 2020).

Kearns and Kearns (2020) argue that comics have been effective in communicating scientific information during the COVID-19 pandemic, citing examples like Sonny Liew's *Baffled Bunny* series that have helped to share important concepts such as 'social distancing' for healthcare institutions and governments, among others. They argue that comics help support "heuristic decision making … through narration and storytelling" (p. 144). This is especially important since heuristic decision-making involves the utilisation of mental "short cuts" that often incorporate cognitive biases arising from previous experiences, emotions and incomplete understandings of relevant concepts rather than rational judgement based on the strengths of presented facts. The typical scientific response of using statistics and scientifically accurate information to counter misleading

and inaccurate information in public health communication is thus rendered less effective since these do not address the cognitive biases that often have their bases in fear, emotional appeal and often unverifiable individual anecdotes. The echo chamber that is social media amplifies the potency of misleading information as individuals band together in groups where they reinforce each other's perceptions of an event or a piece of information (Cinelli et al., 2021).

Therefore, to counter such biases and misconceptions, the causal pattern of development of the narrative, the emotive enhancement of stories, with their potential for simplifying complex concepts and enabling the incremental development of abstract concepts, together with the popularity, immediacy and accessibility of the comic medium have worked to enable the effectiveness of comics as a public health communication tool during this COVID-19 pandemic. Other advantages of using the comic medium are its ability to cushion the negative impact of pandemic stress (Alabi, 2021), its appeal to youths who may be especially susceptible to misleading information as a consequence of their familiarity with an interconnected, digitised world (Diamond et al., 2021) and its potential for collaboration between medical and science experts and graphic artists to provide medically and scientifically accurate information in an accessible and appealing way (Igarashi et al., 2020).

As with any medium of communication, the effectiveness of comics as a communicative tool is not guaranteed; there are aspects that need to be considered when creating an impactful comic meant for a particular communicative purpose. In her article, Tribull (2017) discusses the educative function of comics for science instruction, highlighting the need to consider aspects such as a clear narrative sequence and understanding how background knowledge influences viewer receptiveness, among others. While her paper focuses on comics for science instruction, these aspects would also be important for the utilisation of comics as a tool for public health communication since the aim is to inform and educate the public about knowledge and behaviours that are crucial to individual well-being and public health during the COVID-19 pandemic.

Theoretical approach

In this chapter, following de Rothewelle (2019a, 2019b), we use a multimodal social semiotic approach to investigate what makes comics containing public health information about COVID-19 a potentially effective medium of communication, and how particular deployments of words and images contribute to their effectiveness.

The social semiotic approach is based on the notion that human beings in any culture use a whole range of different semiotic resources for meaning making and communication. Following Michael Halliday's (1985) premise that the organisation of semiotic resources ultimately reflects the functions these serve in society, the meaning-making

proclivities of language and other semiotic resources have been theorised in terms of three metafunctions, namely,

1. ideational meaning, which consists of experiential and logical meaning, for construing our experience of the world;
2. interpersonal meaning for enacting social relations, expressing attitudes and creating a stance towards these expressions; and
3. textual (or compositional) meaning for organising these meanings into coherent messages relevant to their context.

In language, the three strands of meaning are mapped onto the grammatical structure of a clause through which the three metafunctions are realised. In other words, experiential meaning is realised through the grammatical system of Transitivity, which accounts for the different types of processes that can be enacted through language. Interpersonal meaning is realised through the systems of Mood and Modality, whereby the former focuses on meaning as an exchange, such as the use of statements and questions for giving and demanding information or offers and commands for giving and demanding goods and services; and the latter on expressions of probability, usuality, obligation and inclination. Lastly, textual meaning is realised through the theme-rheme structure which organises the flow of information in a clause.

A similar approach has been taken by Kress and van Leeuwen who developed a metafunctionally based framework for the analysis of images and other multimodal resources (e.g. Kress and van Leeuwen, 2006, 2021; van Leeuwen, 2005). For instance, in a multimodal context, experiential meaning is concerned with how social actors and social actions are constructed through the represented participants' actions, transactions, settings and circumstances (in other words, who is doing what to whom, how and where). Interpersonal meaning is concerned with the viewing positions and power relations that are constructed with and for the viewer through the systems of gaze, distance and angle. Textual (or compositional) meaning, in turn, is concerned with the ways visual elements are arranged on the page, which can make certain elements more salient and endow them with specific informational values, and how items of information (visual and verbal) are linked meaningfully to other items of information (van Leeuwen, 2005).

Data: "The COVID-19 Chronicles"

The data for this chapter is taken from "The COVID-19 Chronicles", a publication of the National University of Singapore (NUS) Yong Loo Lin School of Medicine (YLLSM).[2] It is a series of educational illustrations in the form of comics meant to disseminate COVID-19-related information to the public, combining knowledge and experience that would be familiar to those living in Singapore with expert knowledge from the university's

medical school (NUS News, 2020). The information communicated via these comics range from the presentation of medical and scientific information to educate the public and address the 'infodemic' (OECD, 2020) of false information that has emerged during the pandemic, to highlighting relevant topics and important announcements, for example, the dedication of frontline healthcare workers and the gradual age group-based availability of vaccinations. The medical school works with an illustrator to produce the comics, utilising the expertise of a creative industry professional to create accessible, entertaining and, at times, humorous comics aimed at educating and motivating members of the public to do what is necessary to protect themselves and the community, and to reassure them that daily life can continue as optimally as possible in this 'new normal'.

While the university may not be overtly classified as an institution of the state, its key role in the state's strategies for pandemic management stems from its function as a reliable source of medical and scientific expertise that the government can turn to for advice on measures required to manage the pandemic. Therefore, the fact that universities can offer the necessary expertise to provide substantiation for public health content means that they have the potential to act as extensions of the state's public health communication strategies to engage and educate the public, even if indirectly. The fact that NUS is the flagship university of the nation also provides it with the symbolic capital needed to act authoritatively because of its internationally recognised academic excellence.

The first 100 comics in "The COVID-19 Chronicles" were published from 14 February to 6 October 2020, with the series restarting on 14 December 2020. To organise the dataset, we went through all 100 comics and classified them into four categories: Information/education, care and concern, safety and prevention, and society. These categories consider varied aspects relevant to the management of public health in a pandemic situation. For our analysis, we selected five comics from this first set of 100 comics since most of the comics were published during this period. These five comics were selected since they represent some of the key themes involved in the Singapore state's management of the COVID-19 pandemic – addressing unverified COVID-19 related information (information/education), the outbreak in migrant worker dormitories (society; care and concern), enforcement of public health measures (safety and prevention) and personal responsibility (safety and prevention).

All comics are published in running order, with a numbered hashtag and a headline or title. Each comic comprises six panels that, following a traditional Western reading path, are read in a linear manner from left to right, and top to bottom. An example of an annotated screenshot of a comic (No. #8) from "The COVID-19 Chronicles" is shown in Figure 3.1. The remaining four comics analysed in this chapter (No. #40, #42, #70 and #78) are shown in Figure 3.2.

Figure 3.1 Annotated screenshot of comic #8 from "The COVID-19 Chronicles".

Source: NUS Yong Loo Lin School of Medicine; illustration by Andrew Tan.

The first panel (P1) of each comic consists of text only and presents the headline or title in large capital letters, logos and institutional affiliations. This is followed by a visual-verbal narrative, which is presented over the next four panels (P2–P5). The last panel (P6) always depicts a decontextualised, disembodied talking head that bears a close likeness

Figure 3.2 Comics No. #40, #42, #70 and #78 (arranged in chronological order, from top left to bottom right).

Source: NUS Yong Loo Lin School of Medicine; illustrations by Andrew Tan, and Neo Ann Gee.

to a real person of authority on COVID-19 related matters, which we thus termed the "voice of authority" figure. Always identified by title and professional capacity in the text below the image, the figurehead looks directly at the viewer. Interpreted from a social semiotic perspective, the figure's gaze, and verbal utterance in the speech bubble emanating from it, demand that the viewer enters into a direct relation with the figurehead and the conveyed message. Compositionally, the figurehead is not portrayed larger, but in fact often smaller, than the fictional cartoon characters in the story panels. However, the speech bubbles that convey the voice of authority message are considerably larger in size than the speech bubbles accorded to story characters, occupying almost two thirds of the panel space. Accordingly, it can be surmised that the voice of authority message carries greater weight than the utterances of story characters. Moreover, the content of the message generally aligns with the short synopsis presented below the comic that sums up the key points of the takeaway message for the viewing public.

In the following section, we present a systematic analysis of how the multimodal resources deployed in the five comics contribute to effectively communicate scientific and health information related to the COVID-19 pandemic for the public. We begin the section by first briefly describing how the data was coded for analysis.

Analysis

The data was coded separately following de Rothewelle's (2019a, 2019b) methodology, with the analysis focusing mainly on the types of semiotic resources found in the comics and the three strands of meaning – ideational, interpersonal and textual – generated by these semiotic resources as described in the 'Theoretical approach' section. Where needed, the interaction between different semiotic resources giving rise to the overall meaning of the text was also analysed. We then discussed the individual analyses to resolve any disagreements in the analytical interpretations of the data.

#8 Mouthwash and other myths

Comic #8 (see Figure 3.1) was released during the initial phase of the COVID-19 outbreak, before it was officially declared a pandemic by the World Health Organization on 11 March 2020. At this stage, not much was known about the virus, and rumours, myths and misinformation about the disease and how to protect oneself against it spread rapidly via social media channels (Long et al., 2021; van der Linden et al., 2020).

In terms of experiential meaning, panels P2 to P5 of the comic present a nagging wife lecturing her ignorant husband about his misconceptions regarding the use of mouthwash, sesame oil and garlic to protect himself from the COVID-19 virus and getting exasperated by his unfamiliarity

with the acronym WHO (Word Health Organization). The represented participants, the nagging wife and her ill-informed husband, are shown exchanging verbal processes, as suggested by the speech bubbles emanating from the characters. In terms of Kress and van Leeuwen's social semiotic framework, when represented participants are shown doing something to each other, they are considered to be engaged in narrative processes. They are construed as Actor and Goal or, in this case, as Sayer and Recipient.

In terms of interpersonal meaning established through gaze, the represented participants are not depicted as looking at the viewer but at each other as they engage in the verbal exchanges. The viewer is placed as an onlooker to the unfolding action. In terms of interpersonal power relations established through angle and social distance (i.e. shot length), the viewer is placed at the same level as the represented participants in the comics, and thus made to identify with them.

In terms of textual meaning, the overall meaning of the narrative is to be read and interpreted in a linear manner, together with the voice of authority message and the takeaway message in the synopsis below the comic. The voice of authority endorses the view put forth by the nagging wife in the comic: "I love garlic. But I will never use it to treat or prevent an infection. There's no evidence that eating garlic, using mouthwash and putting on sesame oil can protect us from the virus". This point of view is corroborated in the takeaway message in the synopsis below the comic: "WHO said it: There's no evidence that eating garlic, using mouthwash and putting on sesame oil can protect one from the COVID-19 virus". A subscript below the comic then further enlightens the reader that WHO stands for Word Health Organization.

In language, known information is presented at the beginning of a clause as the Theme (or Given). New information is then presented at the end of clause. Kress and van Leeuwen (2006, 2021) propose that the way semiotic elements are arranged on a page (that is, participants and the syntagms that connect them to each other and to the viewer) likewise endows them with specific information values relative to each. They suggest, for example, that left-right relations can be interpreted as Given and New, and top-bottom relations as Ideal[3] and Real. In this context, the overall meaning potential conveyed by the comic that there may exist an ignorant public with a proclivity to believe in myths about the efficacy of unproven COVID-19 remedies can be regarded as representing the Given/Ideal, whereby the voice of authority and takeaway messages, which both clarify and refute these myths by providing more factual information, can be regarded as representing the New/Real.

#40 *Working together to keep everyone safe*

Comic #40 (Figure 3.2, top left) was released on 28 April 2020. Singapore had been fairly successful in containing the spread of the virus during

the early stages of the pandemic until it experienced a sudden increase in infections as the virus spread through the dormitories that house Singapore's community of migrant workers, which led to the introduction of "circuit breaker" measures. Singapore's 300,000 strong migrant workforce was tested and treated, confined to their dormitories and prohibited from mingling with the general public.

Panel P2 depicts healthcare workers clad in full protective outfits administering COVID-19 tests to unmasked migrant workers. Healthcare workers are standing and bending over the unmasked migrant workers, who are shown seated in an outdoor treatment facility in front of high-rise dormitory buildings. The represented participants in P2 are engaged in a transactional process, whereby the healthcare workers are Actors and the migrant workers are the Goal. The following two panels depict migrant workers engaged in verbal processes while looking out of a dormitory window (P3) and inside a dormitory room (P4). In this case, the migrant workers are represented as Actors, or Sayers. P2 to P4 are daytime scenes. P5 depicts healthcare workers at night being cheered by migrant workers leaning out of dormitory windows.

In terms of the interpersonal power relations that are constructed for the reader in this comic, P2 sets the scene by placing the viewer as an onlooker to the depicted action. In P3 and P4, the migrant workers are directing their gaze at the healthcare workers below. Also, in P3, the migrant workers are shown in relative close-up, and placed at the same horizontal angle as the viewer. This has the effect of communicating that the viewer is meant to empathise and agree with the verbal statements made by the migrant workers, acknowledging that healthcare workers have been working hard all day long to keep everyone safe, including Singapore's community of migrant workers. This meaning is reiterated in the verbal demand in P4: "Listen. Tonight, let's join in to cheer for them at 8pm to thank them!". These imaginary social reactions are then reaffirmed in P5, which shows a group of healthcare workers looking up at the high-rise dormitory blocks from a very low angle, forcing the viewer to look up as well, acknowledging and endorsing the migrant workers' actions. In terms of modality, the portrayed action is not fictional or hypothetical as in comic #8 but has a high truth value: A subscript to the comic informs the reader that the represented action "actually took place at ASPRI-Westlite Papan dormitory at 8pm on Saturday, 25 April".

The information flow in comic #40 is dictated by the overall narrative, with each panel leading to a sequence of follow-on actions. The voice of authority message contributes additional, complementary information, extending and reinforcing the meanings conveyed by the narrative. Using the inclusive first-person plural possessive pronoun "our", the reader is co-opted into agreeing with the statement that "Our healthcare workers are working tirelessly to keep everyone safe. Our migrant workers are important and deserve our best care". The overall meaning potential of the story is further validated by the takeaway message: "Every small act

counts – you don't have to be a superhero to be able to protect others", in this case ratifying the actions of both healthcare and migrant workers (the collective "superheroes") in the fight to protect all Singaporeans from contracting COVID-19.

#42 *Life in the dormitories*

Comic #42 (Figure 3.2, top right) was published only a few days later, on 2 May 2020, and likewise extols the actions of Singapore's healthcare workers in relation to caring for migrant workers, although the story is conveyed in a different manner, projecting a health worker's point of view. Panel P2 shows a masked figure in uniform that self-identifies and addresses the viewer directly: "I'm A/Prof Thomas Loh. At the migrant worker dormitories, we do a lot of swabs every day. But that's not all we do". Presumably the avatar of a real person, A/Prof Loh then proceeds to provide a running commentary in documentary fashion (where quotation marks in speech bubbles index direct speech addressed at the viewer), narrating the activity shown in the subsequent panels, such as migrant workers (the Goal) being attended to by healthcare workers (P2), being supplied with gift packs (P3); being monitored outside a minimart (P4), and practicing safe distancing and not mingling (P5).

In terms of interpersonal relations, the viewer is brought in close alignment with A/Prof Loh's avatar, who addresses the viewer directly in close social distance in P2 and P5. In P3 and P4, A/Prof Loh's avatar is placed within the scene in long shots, showing the entire figure in relation to its surroundings.

Like in the previous comic, the information flow of comic #42 is linear, with each panel contributing another piece of the story as told by A/Prof Loh, whereby the content of the verbal message in each panel is similar to the content shown in the visual image. Consequently, the voice of authority message reinforces the meaning conveyed by the visual and verbal messages in the panels ("our migrant workers are doing a great job in preventing the further spread of COVID-19"), which is further validated by the takeaway message, once again relying on the use of the inclusive first-person plural possessive pronoun to reassure the general public that "Our migrant friends and the medical teams on-site are working together to do their best to curb the spread of COVID-19".

#70 *Having fun with masks*

Comic #70 (Figure 3.2, bottom left) was published on 4 July 2020. While there was some ambivalence about the need to wear masks during the initial phases of the pandemic, the wearing of masks was made mandatory in Singapore on 14 April 2020 (Tay, 2020). Although working from home quickly became the norm for most Singaporeans, some businesses

returned to the office after the lifting of the circuit breaker measures in June 2020.

Panels P2 and P3 show a group of female office workers wearing colourful, personalised masks, matching the patterns of their attire. In the following two panels, they are joined by a male colleague wearing a rubber mask in his own likeness. As he is being admonished by his female colleagues for not wearing a mask, he pulls off his rubber mask – while making intertextual references to the character played by Tom Cruise in the action film *Mission: Impossible* about a spy on a mission to disprove false accusations made against him (Mulhall, 2006) – and reveals that he is in fact wearing a protective cloth mask underneath his disguise.

The represented participants in this comic are shown to be engaged in narrative representations as Actors and Sayers, exchanging acts of communication with each other, and not the viewer. Although the female figure in P3 is shown at close personal distance, her large round eyes are not looking at the viewer, and her verbal actions are addressed at her co-workers. The viewer is placed as an onlooker to the action through offer images.

Like in the previous comics, the information flow in this comic is once again presented in a linear and sequential fashion, whereby the content of the voice of authority message mirrors the content of the story by providing complementary information: "Whether you're a movie fan or cat whisperer, there are many ways we can customise masks to our own tastes. It's good to have fun as we keep up the habit of wearing masks, which helps reduce community spread of the virus". This projected conviviality then contrasts partly with the takeaway message in the synopsis, which commands the viewer in direct personal address to "not forget your masks when you head out!".

#78 COVID-19 virus-airborne?

Comic #78 (Figure 3.2, bottom right) was published on 25 July 2020. Earlier that month, the WHO had published an update to a scientific brief to acknowledge that airborne transmission of the disease may be a distinct possibility (WHO, 2020).

Comic #78 stands apart from the other comics in the series in that it tells the story of transmission from the viewpoint of the virus, which is endowed with human characteristics and behaviours. Each panel presents a different scenario in the transmission story. P2 depicts an anthropomorphised coronavirus conversing with a similarly anthropomorphised chickenpox virus about their 'airborne' status. P3 shows a coronavirus spying on a group of people working out in a gym, P4 shows a group of airborne viruses gearing up to attack a human being, while P5 depicts a beer-swilling virus lounging on a sofa listening to COVID-19 news on TV. In this comic, the virus cells are consistently depicted as Actor, Sayer and Sensor, with human participants as the Goal/Phenomenon.

Interpersonally, the virus cells are drawn disproportionally large (as large as beach balls in some cases) and depicted in relative close-up. Additionally, they are given a face complete with distinctive facial features such as a mouth, eyes and nose. Although they are not addressing the viewer directly in these representations, they are made salient by means of their exaggerated size, humanoid features and behaviours, and conspicuous green colour. This works to raise feelings of disgust in reaction to the virus' intentions to infect as many people as possible through airborne transmission.

Textually, the comic offers an exaggerated fictional account of transmissibility, which in social semiotic terms, can be considered as representing the Given/Ideal. Consequently, the voice of authority message, which provides more down-to-earth factual information ("There has been an ongoing debate among scientists if the COVID-19 virus is indeed airborne. While studies are underway, we can stay safe by limiting large gatherings, practising hand hygiene, safe distancing and wearing masks") is presented as the New/Real. The New information in the voice of authority message successively becomes the takeaway message for the reader: "Airborne or not, the best way to stay safe is by limiting large gatherings, practicing hand hygiene, safe distancing and wearing masks!".

Discussion

As previously mentioned, there are properties of the comic medium that make it useful as a means of public health communication. In this section, we discuss the analytical findings above with reference to how the co-deployment of text and image works with the narrative form to enable incremental development and simplification of complex concepts, to construct representations that present a positive narrative, and to use affective appeal via humour and positive appraisal for accessibility and immediacy to model appropriate behaviour and background possible points of conflict.

Firstly, the co-deployment of text and image enables the use of audience engagement strategies such as visual metaphor. For example, in Comic #78, the chickenpox and COVID-19 viruses are personified, functioning as characters in a developing narrative plot, with both anthropomorphised viruses bantering about their different modes of transmission[4] (P2). Such anthropomorphism works with the narrative form in the comic to facilitate causal development that helps to incrementally develop and simplify the complex concept of viral transmission using humour. The friendly banter between both viruses establishes the beginning of the narrative and the ensuing plot development from this panel to the fifth sees the COVID-19 virus putting such a mode of transmission into action as the virus "moves" to find more "victims" to act as human carriers before finally relishing the results of its "work". This plot development thus helps to incrementally develop the complex concept of viral transmission,

using the visual metaphor of the virus as an active criminal agent seeking "victims" to use as carriers, from which droplets of human fluids such as sweat as attackers evidence the visual metaphor of war.

In addition, the potential complexity involved in the conclusiveness of research findings related to COVID-19 viral transmission is backgrounded since it is positioned only in P6, where an expert voice visualised as a talking head acknowledges such a lack of conclusiveness at that point in time. Such an acknowledgement does not impact the prior information about viral transmission negatively since it is used by the expert as a reason for continuing distancing measures and persisting with good personal hygiene habits such as handwashing. This taps into our intuitive need for safety and security and puts the onus on viewers to "stay safe" as we wait for more research evidence to emerge, especially after one has viewed P2 to P5, which emphasise how humans can unknowingly act as a means of viral transmission.

The potential complication that the lack of conclusiveness could have caused is averted because the narrative has simplified the issue by focusing first on the Given/Ideal, or what is already generally established knowledge. Humour helps to reinforce this established knowledge of viral transmission via droplets, playing on exaggerated and comical depictions of the COVID-19 virus and its mode of transmission. This humour is possible here because of the co-deployment of text and image that allows for an invisible virus to take on an exaggerated visible form and speak and engage in humanlike activities such as watching TV. The multimodal depiction of the virus as Actor, Sayer and Sensor portrays it humorously as an agent of infection – the stereotypical evil villain.

Humour thus works with the exaggerated character of the comic, attracting audience attention to its message and facilitating understanding since personifying the virus makes its actions more immediate and accessible to the viewer. Humour also impacts the viewer's attitude towards the message, and potentially reduces the likelihood of conflict, especially with the possible complication regarding the lack of conclusiveness at that time about how the COVID-19 virus is transmitted.

In Comics #40 and #42, we see how the comic medium is used to construct meanings that address the public health concern of the quick spread of COVID-19 in migrant worker dormitories that led to high numbers of infected individuals within the migrant worker community. In both comics, the healthcare worker and migrant worker are accorded Actor/ Sayer and Goal/Recipient roles, representing how both groups of individuals played their parts in managing the crisis. The healthcare worker is depicted as Actor-provider of healthcare and healthcare instruction and advice, Goal of the migrant workers' gratitude and Recipient of their feedback, with the migrant workers represented as Actors cheering on the healthcare workers, clapping for them, giving feedback to healthcare workers and playing their part to keep the spread of COVID-19 in check

by going for health checks and following rules about wearing masks and not mingling.

Significantly, both groups are represented as positively appraising each other. In Comic #40, the cheering depicted using visual text in P5 depicts a positive appraisal, with the use of capital letters, exclamation marks and repetition visually capturing the volume of the cheers. In Comic #42, A/Prof Thomas Loh's positive appraisal of the migrant workers is represented by a depiction of his person in a close-up, with the phrase "I'm impressed" in P5. In both comics, the expert voice expresses alignment with the positive appraisal of the preceding panels, lauding healthcare workers in Comic #40 and migrant workers in Comic #42 for their efforts. Comic #40 P6 mentions how migrant workers are "important" and "deserve the best care", with healthcare workers working "tirelessly" in this endeavour to care for the migrant workers, and in Comic #42 P6, the spotlight is shone on the migrant workers for "doing a great job" to prevent the spread of COVID-19.

All these put together, construct a representation of a situation under control. This depiction is significant considering how there were, at that time, several critical voices, especially on social media, taking the Singapore government to task for ignoring living conditions in the migrant worker dormitories that were seen by the public as responsible for the quick spread of COVID-19 among migrant workers (Satveer, 2020). Such portrayals of collaboration between both healthcare workers and migrant workers using the comic medium are arguably more effective than using statistics and facts since they are emotionally appealing, allowing viewers to connect with what is presented to them as direct accounts of what is going on in the migrant worker dormitories. For example, both comics contain elements that point towards their basis in real life: the asterisked comment in Comic #40 and use of a visual depiction of a presumably real-life person A/Prof Loh in his medical scrubs in Comic #42. Both comics and their represented meanings thus imply that the actions taken by the Singapore government to manage the outbreak in the dormitories have been successful.

Finally, in Comics #8 and #70, behaviours required for the maintenance of public health in the pandemic are modelled with affective engagement without the risk of attempting such acts in real life. As mentioned previously, Kearns and Kearns (2020) have argued for how this allows readers to visualise both positive and negative outcomes depending on the behaviour followed. However, in both these comics, the positive and negative outcomes are humorous, exaggerated ones, rather than actual real-life possibilities.

In Comic #8, the narrative development makes use of a typical dyad of knower and non-knower that is often used in advertisements to sell products, with both knower and non-knower taking on the Sayer and Recipient roles interchangeably. The viewer is positioned at the same level as the depicted participants, thus motivating engagement with them.

This engagement is enhanced by the employment of the particular type of knower-non-knower dyad relationship of the stereotypical ignorant husband and more knowledgeable wife to communicate the non-scientific basis of purported cures for COVID-19. The comical outcomes of the non-knower's behaviour are used to show how these purported cures have no scientific basis and lead to irritation. For example, the wife's exasperation at the husband's teasing in P5 of the comic, with her retort to use the mouthwash to get rid of the garlic smell on his breath emphasises the ridiculousness of using garlic as a cure for COVID-19. The husband's staged ignorance of what "WHO" is, namely the World Health Organization, and his word play[5] in P4 also add to the humour, with his worried facial expression in P5 possibly implying his regret at irritating his wife. Essentially, humour is used to communicate the insensibility of the purported cures for COVID-19 mentioned here, which is something reinforced by the expert voice in the final panel and the synopsis below the comic.

Something similar also occurs in Comic #70 with the behaviour of mask wearing. Instead of a knower and non-knower dyad, we have a group of protagonists and a single antagonist. Although the antagonist appears first as contravening the rules on mask wearing in Singapore in P4, and is confronted by one of the protagonists, this moment of tension is diffused using humour when the antagonist pulls off his rubber face mask to reveal his actual face masked as required, attributing his prank to his love of the "Mission Impossible" movie series. Interestingly, the expert voice in P6 takes up this element of fun in mask wearing as communicated in this scenario, using it to remind viewers of the need to use masks to reduce community spread. This also implicitly addresses the discomfort of wearing masks for prolonged periods of time, with the emphasis on fun used to make mask-wearing behaviour less of a burden. Humour and narrative development are thus employed here, like in Comic #8, to encourage mask-wearing behaviour by showing how fun it can be. Moreover, like in Comic #8, the viewer is positioned as a passive observer of the events depicted in P2 to P5. This enables the viewer to assess the protagonists' and antagonist's words and behaviours linked to the depicted outcome as reiterated by the expert voice in P6 that mask wearing can not only be fun, but also help reduce community spread to protect others.

Limitations

This study has confined itself to examining how multimodal semiotic resources can be utilised to present public health information in an accessible and potentially effective manner. Such an approach can be considered subjective since it utilises the researchers' analyses in the absence of more objective measures such as eye tracking to examine audience reception of comics. In addition, the actual effectiveness of these comics has not been

examined here via an audience reception study. Perhaps future studies can focus on these areas to enhance the findings reported here.

Conclusion

This chapter has shown examples from the Singapore context of how the comic medium can be used as graphic medicine, with such communication employed to assist in the dissemination of accurate information that aims to educate and motivate the populace to take appropriate action. The advantages of the comic medium were evidenced in the discussion of the various analyses, showing how the co-deployment of text and image, together with the utilisation of the narrative form helped facilitate the simplifying and incremental development of complex information and model behaviours useful in the maintenance of public health via affective engagement strategies such as humour. Furthermore, the analyses also showed how comics played a part in helping to manage a healthcare crisis caused by the outbreak of COVID-19 in migrant worker dormitories by focusing on the roles played by healthcare workers and migrant workers in making sure the outbreak did not escalate further.

With the end of the pandemic yet in sight and the possibility of further viral variants emerging, there remains a need for effective public communication of scientific and health information about COVID-19. This is especially true with pandemic fatigue setting in, and as a result, individuals potentially being desensitised to public health communication about the COVID-19 virus. Perhaps comics as graphic medicine, with their potential to provide viewers with culturally and contextually relevant and accessible information that utilises affective engagement, can help address such a need by breaking through the tedium, worry and fear of a continued pandemic situation.

Notes

1 Imported cases are defined as individuals who have been tested upon arrival to Singapore and found to be positive for COVID-19 infection.
2 https://medicine.nus.edu.sg/the-covid-19-chronicles/
3 "Ideal" in social semiotic terms refers to an idealised representation.
4 Studies to determine this are still ongoing though the scientific consensus indicates that the coronavirus is spread mainly by droplets and airborne transmission (WHO, 2021).
5 The acronym "WHO" spells out the word "who" as well.

References

Abdullah, W. J., & Kim, S. (2020). Singapore's responses to the COVID-19 outbreak: A critical assessment. *The American Review of Public Administration*, *50*(6–7), 770–776. https://doi.org/10.1177/0275074020942454

Alabi, O. S. (2021). Crisis communication and coping strategies during COVID-19 pandemic: A content analysis of coronavirus cartoons and comics (CCC). *SSRN*. http://dx.doi.org/10.2139/ssrn.3794390

Ashwal, G., & Thomas, A. (2018). Are comic books appropriate health education formats to offer adult patients? *AMA Journal of Ethics*, *20*(2), 134–140. https://doi.org/10.1001/journalofethics.2018.20.2.ecas1-1802

Callender, B., Obuobi, S., Czerwiec, M. K., & Williams, I. (2020). The art of medicine: COVID-19, comics and the visual culture of contagion. *The Lancet*, *396*(10257), 1061–1063. https://doi.org/10.1016/s0140-6736(20)32084-5

Chandra, A., Acosta, J., Howard, S., Uscher-Pines, L., Williams, M., Yeung, D., Garnett, J., & Meredith, L. S. (2011). *Building community resilience to disasters: A way forward to enhance national health security*. RAND Corporation. www.rand.org/pubs/technical_reports/TR915.html

Chong, C. (2021, January 23). Panic buying, circuit breaker and reopening: A timeline of S'pore's Covid-19 fight. *The Straits Times*. www.straitstimes.com/singapore/panic-buying-circuit-breaker-and-reopening-a-timeline-of-spores-covid-19-fight

Cinelli, M., De Francisci Morales, G., Galeazzi, A., Quattrociocchi, W., & Starnini, M. (2021). The echo chamber effect on social media. *Proceedings of the National Academy of Sciences*, *118*(9), e2023301118. https://doi.org/10.1073/pnas.2023301118

de Rothewelle, J. C. (2019a). Comics and medical narrative: A visual semiotic dissection of graphic medicine. *Journal of Graphic Novels and Comics*, *10*(5-6), 562–588. https://doi.org/10.1080/21504857.2018.1530271

de Rothewelle, J. C. (2019b). Visual pathologies: The semiotics of the patient and the practitioner in comics. In T. F. Heston (Ed.), *Topics in Primary Care Medicine*. IntechOpen Book Series. https://dx.doi.org/10.5772/intechopen.88262

Diamond, J., Spiegel, A., Hill, T. W., VanWormer, E., Gaiashkibos, J., Hall, B., Sutherlen, A., & McQuillan, J. (2021). Developing pandemic comics for youth audiences. *Journal of STEM Outreach*, *4*(2). https://dx.doi.org/10.15695%2Fjstem%2Fv4i2.03

El Refaie, E. (2019). Visual metaphor and embodiment in graphic illness narratives. *Oxford Scholarship Online*. https://oxford.universitypressscholarship.com/view/10.1093/oso/9780190678173.001.0001/oso-9780190678173

Fong, L. (2021, May 20). What lies beneath the unhappiness over Covid resurgence in S'pore? *The Straits Times*. www.straitstimes.com/opinion/what-lies-beneath-the-unhappiness-over-covid-resurgence-in-spore

Green, M. J., & Myers, K. R. (2010). Graphic medicine: Use of comics in medical education and patient care. *BMJ*, *340*, c863. https://doi.org/10.1136/bmj.c863

Gwee, S.X.W., Chua, P.E.Y., Wang, M.X., & Pang, J. (2021). Impact of travel ban implementation on COVID-19 spread in Singapore, Taiwan, Hong Kong and South Korea during the early phase of the pandemic: A comparative study. *BMC Infectious Diseases*, *21*, 799. https://doi.org/10.1186/s12879-021-06449-1

Halliday, M. A. K. (1985) *An introduction to functional grammar*. Edward Arnold.

Houts, P. S., Doak, C. C., Doak, L. G., & Loscalzo, M. J. (2006). The role of pictures in improving health communication: A review of research on attention,

comprehension, recall, and adherence. *Patient Education and Counseling*, *61*(2), 173–190. https://doi.org/10.1016/j.pec.2005.05.004

Igarashi, Y., Mizushima, N., & Yokoyama, H. M. (2020). Manga-based risk communication for the COVID-19 pandemic: A case study of storytelling that incorporates a cultural context. *Journal of Science Communication, 19*(7), 1–18. https://doi.org/10.22323/2.19070802

Jones, D. M., & Brown, D. (1994). Singapore and the myth of the liberalizing middle class. *The Pacific Review*, *7*(1), 79–87. https://doi.org/10.1080/09512749408719073

Kearns, C., & Kearns, N. (2020). The role of comics in public health communication during the COVID-19 pandemic. *Journal of Visual Communication in Medicine*, *43*(3), 139–149. https://doi.org/10.1080/17453054.2020.1761248

Keen, S. (2006). A theory of narrative empathy. *Narrative*, *14*(3), 207–236.

Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design* (2nd ed.). Routledge.

Kress, G., & van Leeuwen, T. (2021). *Reading images: The grammar of visual design* (3rd ed.). Routledge.

Lai, L. (2021, April 26). Singapore has adapted well to Covid-19, with societal trust playing a key role: IPS study. *The Straits Times*. www.straitstimes.com/singapore/singapore-has-adapted-well-to-covid-19-with-societal-trust-playing-a-key-role-ips-study

Lee, D. (2020). Covid-19 in Singapore: "Responsive communitarianism" and the legislative approach to the "most serious crisis" since independence. *Singapore Journal of Legal Studies*, *2*, 630–664.

Lim, J. M., Tun, Z. M., Kumar, V., Quaye, S. E. D., Offeddu, V., Cook, A. R., Lwin, M. O., Jiang, S., & Tam, C. C. (2021). Population anxiety and positive behaviour change during the COVID-19 epidemic: Cross-sectional surveys in Singapore, China and Italy. *Influenza Other Respiratory Viruses, 15*(1), 45–55. https://doi.org/10.1111/irv.12785

Lim, V. W., Lim, R. L., Tan, Y. R., Soh, A. S. E., Tan, M. X., Bte Othman, N., Dickens, S. B., Thein, T. L., Lwin, M. O., Ong, R. T.-H., Leo, Y.-S., Lee, V. J., & Chen, M. I. C. (2021). Government trust, perceptions of COVID-19 and behaviour change: Cohort surveys, Singapore. *Bulletin of the World Health Organization*, *99*(2), 92–101. https://doi.org/10.2471/blt.20.269142

Long, V., Koh, W. S., Saw, Y. E., & Liu, J. C. (2021). Vulnerability to rumours during the COVID-19 pandemic in Singapore. *Annals of the Academy of Medicine, Singapore*, *50*(3), 232–240. https://doi.org/10.47102/annals-acadmedsg.2020523

Mathews, M., Suhaini, S., Hou, M., & Phoa, F. (2021). Living with Covid-19 in Singapore: Attitudes, challenges and the way ahead. *IPS Working Papers No. 43*. https://lkyspp.nus.edu.sg/docs/default-source/ips/working-paper-43__living-with-covid-19-in-singapore-attitudes-challenges-and-the-way-ahead.pdf

Mazumdar, J. M., & Pantaleo, N. L. (2017). Comics as a medium for providing information on adult immunizations. *Journal of Health Communication*, *22*(10), 783–791. https://doi.org/10.1080/10810730.2017.1355418

McNicol, S. (2017). The potential of educational comics as a health information medium. *Health Information & Libraries Journal*, *34*(1), 20–31. https://doi.org/10.1111/hir.12145

Ministry of Health, Singapore (2020). *Circuit breaker to minimize further spread of COVID-19*. Singapore. www.moh.gov.sg/news-highlights/details/circuit-breaker-to-minimise-further-spread-of-covid-19

Mulhall, S. (2006). The impersonation of personality: Film as philosophy in "Mission: Impossible." *The Journal of Aesthetics and Art Criticism*, *64*(1), 97–110. www.jstor.org/stable/3700495

Ng, J. S., & Woo, S. (2020, February 21). Covid-19: "Too early to say worst is over" – downward trend in S'pore but experts worry about imported cases from outside China. *Today Online*. www.todayonline.com/singapore/covid-19-too-early-say-worst-over-downward-trend-spore-experts-worry-about-imported-cases

NUS News (2020). *Comics to educate the public about COVID-19*. https://news.nus.edu.sg/comics-to-educate-the-public-about-covid-19/

Organisation for Economic Co-operation and Development (OECD) (2020). Transparency, communication and trust: The role of public communication in responding to the wave of disinformation about the new Coronavirus. *OECD Policy Responses to Coronavirus (COVID-19)*. www.oecd.org/coronavirus/policy-responses/transparency-communication-and-trust-the-role-of-public-communication-in-responding-to-the-wave-of-disinformation-about-the-new-coronavirus-bef7ad6e/

Saji, S., Venkatesan, S., & Callender, B. (2021). Comics in the time of a pan(dem)ic: COVID-19, graphic medicine, and metaphors. *Perspectives in Biology and Medicine*, *64*(1), 136–154. https://doi.org/10.1353/pbm.2021.0010

Satveer, K.-G. (2020). The COVID-19 pandemic and outbreak inequality: Mainstream reporting of Singapore's migrant workers in the margins. *Frontiers in Communication, 5*(65). www.frontiersin.org/article/10.3389/fcomm.2020.00065

Tan, J. B., Cook, M. J., Logan, P., Rozanova, L., & Wilder-Smith, A. (2020). Singapore's pandemic preparedness: An overview of the first wave of COVID-19. *International Journal of Environmental Research and Public Health*, *18*(1), 252. https://doi.org/10.3390/ijerph18010252

Tay, T. F. (2020, April 14). Coronavirus: Mandatory for all in Singapore to wear mask when out, except for kids under 2 and those doing strenuous exercise. *The Straits Times*. https://str.sg/JgLH

Tribull, C. M. (2017). Sequential science: A guide to communication through comics. *Annals of the Entomological Society of America*, *110*(5), 457–466. https://doi.org/10.1093/aesa/sax046

van der Linden, S., Roozenbeek, J., & Compton, J. (2020). Inoculating against fake news about COVID-19. *Frontiers in Psychology*, *11*, 566790. https://doi.org/10.3389/fpsyg.2020.566790

van Leeuwen, T. (2005). *Introducing social semiotics*. Routledge.

Wald, P. (2008). *Contagious: Cultures, carriers, and the outbreak narrative*. Duke University Press.

Wong, J. E. L., Leo, Y. S., & Tan, C. C. (2020). COVID-19 in Singapore—current experience: Critical global issues that require attention and action. *JAMA, 323*(13), 1243–1244. https://doi.org/10.1001/jama.2020.2467

World Health Organization (WHO) (2020, July 9). Transmission of SARS-CoV-2: Implications for infection prevention precautions. www.who.int/newsroom/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions

World Health Organization (WHO) (2021, December 23). Coronavirus disease (COVID-19): How is it transmitted? www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19-how-is-it-transmitted

Yang, G. (2008). Graphic novels in the classroom. *Language Arts, 85*, 185–192.

Yip, W., Ge, L., Ho, A. H. Y., Heng, B. H., & Tan, W. S. (2021). Building community resilience beyond COVID-19: The Singapore way. *The Lancet Regional Health – Western Pacific, 7*, 100091. https://doi.org/10.1016/j.lanwpc.2020.100091

Part II

Use of media/media technologies in COVID-19 discourses

4 Design considerations for digital learning during the COVID-19 pandemic

Losses and gains

Fei Victor Lim and Weimin Toh

Introduction

How has learning changed since the beginning of the twenty-first century? This chapter, written during the COVID-19 pandemic in 2020, amidst the national lockdown in Singapore, invites us to pause from the routines of life, which we have grown familiar with, and reflect on the changes in the world around us as we come to the end of the first fifth of the twenty-first century. The recognition that digital technology can change the world has never been brought to the fore more significantly than in 2020. The national lockdown and social distancing measures across many countries in response to the pandemic have restricted much of the physical interactions among people and required us to reimagine work, learning and play. Teaching and learning were unceremoniously thrust fully into the online space. Teachers who were previously either reluctant or resistant towards embracing digital technology as part of their pedagogical practices have had to develop new understandings of how to design digital learning experiences. Students too began to appreciate the novel ways of interacting with the teacher and their peers, with new expectations for greater self-directed and self-motivated learning now that learning is mediated by a screen. Very quickly though, kudos to the human spirit and video conferencing technology, an interim normalising of working from home and online learning during the drawn-out pandemic ensued. The speedy resumption of routines and businesses of life in many countries, albeit now temporarily and fully digitally mediated, leads one to wonder how we might have coped if the pandemic had happened decades earlier when technology was less advanced.

While the experience with technology from the COVID-19 pandemic is raw, the evolutionary changes ushered by technology on learning over the years is not. Digital technology has long since offered new possibilities for teaching and learning. Back in the days when computers were first introduced into the classroom in the 1980s, computer-aided instruction mostly involved "drilling and practice" programmes (Gros, 2016; Russell & Abrams, 2004). In the 1990s, computers, with CD-ROMs,

internet and productivity tools, such as word processing and presentation software, offered teachers and students an unprecedented array of digital resources and digital composing practices.

After the turn of the century, as the cost of computing devices began to fall, personal mobile computing appliances for learning have become increasingly ubiquitous (Ayanso & Lertwachara, 2015; Rashid & Asghar, 2016). Students can now access, communicate, create and exchange information easily online using digital devices and social media for collaborative learning (Gikas & Grant, 2013). For example, they can create their own artefacts such as YouTube videos (Lim & Toh, 2020a) by modelling what others do in their YouTube videos. They can then post their artefacts online to gather feedback from their affinity groups (Gee, 2005) to further refine their artefacts and digital skills from peer-to-peer learning (Altınay, 2017; Guldberg, 2008; Scott et al., 2009).

When using social media such as Facebook, appropriated as a learning platform, the teacher can promote constructivist student-centred teaching (Wang, 2010) and learning approaches (Iiyoshi et al., 2005) by tasking students to create their own video presentations using the class readings, which can later be broadcast via an online learning platform for sharing and discussions. Students can also make presentations synchronously in real time using video conferencing software such as Zoom or Microsoft Teams that can be integrated onto the learning platform. It is now common in higher education that while a textbook is often optional for learning, a personal laptop is not.

Students are also expected to acquire the digital literacies to navigate the complex digital multimodal knowledge representations that aim to engage their multiple senses through multimedia. Digital literacies, based on the Common Framework of Reference for Intercultural Digital Literacies (CFRIDiL), include the dimensions of multimodal orchestration, digital technologies, intercultural communication and transversal skills (Sindoni et al., 2019). Digital literacies also encompass new ways of thinking or a mindset oriented towards distributed expertise, collaboration and a participatory culture that emphasises the collective co-construction of text (Lankshear & Knobel, 2007). Digital literacies are developed as people learn to participate as members of affinity spaces (Gee, 2005) in creating, remixing and sharing a multimodal product such as a walkthrough in digital gaming on social media platforms such as YouTube. Digital literacies can also be intentionally cultivated in the classroom through explicating the knowledge and skills for the teachers to guide the students in working with digital texts, such as in digital reading (Lim & Toh, 2020b).

Some scholars have described the changes ushered with technology as the "digital turn" (Mills, 2010; Nicholson, 2013); however, technology is only the vehicle of change. The changes go deeper into the ways of meaning making that are not only made possible and more accessible to ordinary people (van Leeuwen, 2017), but have also been increasingly

valued. In this chapter, we discuss the teacher's use of semiotic technologies (Djonov & van Leeuwen, 2020; van Leeuwen et al., 2013) to design the learning experience for students (Kress & Selander, 2012). We explore the different ways of meaning making in digital learning – in particular, how knowledge can be represented, pedagogic relations expressed and learning organised through the affordances of semiotic technologies for learning (Lim, 2021). We do this by exploring three types of semiotic technologies, namely, the ubiquitous video lectures, digital games for learning and social media, specifically in its appropriation as a learning platform.

In this chapter, we use the term "digital learning" to refer to the online learning enabled by the use of technology outside of the physical classroom. While digital technology has been commonly used in classroom instruction, the aim of this chapter is to reflect on the different ways of meaning making that semiotic technologies offer in online learning experiences. The design of online learning experiences has come under the spotlight because of the lockdowns in response to the pandemic.

Challenges to teaching during the pandemic

The COVID-19 pandemic has exposed the challenges related to digital learning all over the world. Even in the context of an advanced and technologically connected city-state such as Singapore, a systemic challenge in the conduct of digital learning which was highlighted during the pandemic was that the home-based learning experience was highly uneven among students, depending on their family's socioeconomic status (Ng, 2020). Less well-off families struggled with basic needs such as not having sufficient digital devices to be used among the children and some did not have internet access or enough private space in their homes for a conducive learning environment for home-based learning (Ng, 2020). In addition, studies conducted on the effects of the pandemic have also highlighted concerns over excessive screen time for young children (Nagata et al., 2020).

The spotlighting of these issues has motivated the Singapore Ministry of Education to accelerate the digitalisation of education. One initiative to address the apparent inequity of access is that all secondary school students would receive a state-sponsored personal laptop or tablet for learning by 2021 (Sin, 2020). A complementary initiative is to launch the National Digital Literacy Programme where students are taught the knowledge and skills to be responsible, critical and creative users of digital technologies (Ministry of Education, 2021).

Another challenge in digital learning relates to the readiness of teachers to design for meaningful online learning experiences. As educational researchers have long recognised, it is neither the technology nor the modality, but the teacher that makes the ultimate difference. Digital learning requires a different set of pedagogical considerations

that teachers, who are more used to face-to-face teaching, need to have familiarity and practice with. Even if teachers belong to the generation of "digital natives" (Prensky, 2001), it does not mean that they possess the knowledge and skills required to design online learning experiences (König et al., 2020). Most teachers in Singapore would not have had many opportunities to design digital learning experiences, as the main focus has always been on classroom teaching and learning.

The expectations on teachers to design online lessons in engaging and meaningful ways using diverse teaching materials and interactive online learning activities (Adedoyin & Soykan, 2020) demand that they acquire new knowledge and skills to meet the diverse learning needs of students (Page et al., 2021). Such knowledge and skills include the apt use of semiotic technologies such as video conferencing platforms (Bryson & Andres, 2020) and game quizzes to engage students (Lockee, 2021).

Such sudden demands on teachers to design effective digital learning is particularly challenging as they themselves may be coping with the consequences of the pandemic at the same time. Some teachers may have loved ones that are affected by the pandemic, and others could have young children on home-based learning that they have to care for as well (Kraft & Simon, 2020). Teachers themselves are also isolated at home, without the benefit of being able to interact physically with colleagues in a community of practice where they can exchange instructional strategies, receive emotional support and learn from each other. As a result, teachers during the lockdown, as with most other white-collar workers, face unprecedented challenges in managing both their professional and personal lives as well as having to pick up new knowledge and skills to conduct online teaching. Such considerations may well impede the teachers' readiness to select a semiotic technology for teaching based solely on its fitness for purpose.

Notwithstanding the challenges in designing digital learning experienced by the teachers during the pandemic, we turn our attention to the opportunities brought about by the greater acceptance amongst teachers towards the use of digital technology developed during the lockdown. In particular, we discuss the principles and considerations in designing digital learning experiences, with the hope that such understandings could support teachers as they grow in their comfort and competencies in this area.

Designing digital learning with semiotic technologies

The pedagogic position adopted in this chapter is that of a teacher as designer of learning experiences (Kress & Selander, 2012; Lim, 2021; Lim & Hung, 2016). The concept of "designing learning" was introduced in the seminal work of the New London Group (1996). They argued that teaching should be seen as design work and that teachers are to step into the role of designers of the learning experience. A designer of digital

learning works with semiotic technologies as design tools. The term "semiotic technologies" used in this chapter refers to the instructional tools and platforms that are both meaning-making resources, and social practices. The meanings that we make from creating or using content on the semiotic technologies is grounded in specific sociocultural contexts. The notion of semiotic technologies was developed by van Leeuwen et al. (2013) within the multimodal social semiotics paradigm as they combine related ideas from linguistics and semiotics to examine the design and use of Microsoft PowerPoint in higher education and corporate settings. Djonov and van Leeuwen (2020) define semiotic technologies as technologies for making meaning and propose a social semiotic model for studying semiotic technologies, which includes consideration of their design, use and the sociocultural context in which a semiotic practice is situated. Djonov and van Leeuwen's (2020) social semiotic model for studying semiotic software is premised on the semiotic resource perspective and the social practice perspective. In their development of this model using Microsoft PowerPoint as a case study, Zhao, Djonov and van Leeuwen (2014) conceptualised the use of PowerPoint as a three-dimensional semiotic practice in terms of the design, composition and presentation with semiotic technology. In the first dimension, the software designer creates the PowerPoint software based on design practices and principles for the user. In the second dimension, the user, in our case, the teacher, uses the PowerPoint software to compose the slideshow according to field practices and communicative purposes. In the third dimension, the teacher presents using the PowerPoint slides.

Semiotic technologies encompass meaning-making resources and social practices and focuses on "what" tools and "how" they are used. Examples of semiotic technologies include non-digital tools such as the pencil, whiteboard, printed textbooks (Djonov & van Leeuwen, 2012) as well as digital computer software and applications such as Facebook, Kahoot!, Microsoft PowerPoint, digital textbooks, learning platforms, and augmented and virtual reality wares for students' meaning making and learning. Each semiotic technology has specific affordances. Gibson (1966) describes affordances in terms of "what is offered". Norman (1988) extends affordances as "action possibilities", that is what you can do, and be prompted to do, in the use of a tool. From a social semiotic perspective, Kress (2015, p. 88) explains that affordances "not only allow you to do different things, but insist that different things are done". In terms of the affordances of semiotic technologies, we can consider the ways in which a particular set of knowledge is represented. For example, some knowledge may be better presented linguistically in a book, visually in a multimedia presentation, whereas other knowledge may be better synthesised and distilled as bullet points on a slideshow presentation. We can also consider the nature of interaction the semiotic technology affords. For example, a live video conference presentation limits interaction to one speaker at a time and with the teacher usually dominating

airtime, whereas a forum thread discussion allows all students to contribute their thoughts simultaneously and in response to one another.

The affordances of the semiotic technology ultimately contribute to shaping students' learning experiences, and it is useful for the teacher to imagine the students' experiences when designing their learning. Just as designers choose their tool carefully based on knowing what a tool can and cannot do, as well as their familiarity and fluency with it, teachers as designers of learning choose the tool that is the best fit for the learning goals of the lesson (Kress & Selander, 2012). As such, we propose that semiotic technologies could be chosen based on the design considerations of: (1) The ways *knowledge* can be expressed, (2) the nature of *interaction* with students the semiotic technologies offer and (3) how the semiotic technologies contribute to the learning *experience* (Lim, 2021). In the next section, following the design considerations with semiotic technologies, we reflect on the ways of meaning making afforded by three types of semiotic technologies, namely, the ubiquitous video lectures, digital games for learning and social media as a learning platform.

Videos for learning

Videos are popularly used to engage students in online education courses such as Massive Open Online Courses (MOOCs) (Hew & Cheung, 2014; Lim et al., 2017). In using videos as a semiotic technology for learning, the teacher can either choose pre-recorded video presentations or use real-time presentations using PowerPoint slides via video conferencing software such as Zoom or Microsoft Teams over an interactive webinar (e.g. Compen et al., 2020).

Knowledge representation

In terms of knowledge representation with videos, information is typically presented by the teacher using multimedia content such as visualisations, animations and voice recordings. Subtitles may also be provided in the pre-recorded lectures to enable students to follow along with the contents (Castrillo, 2014). Supporting materials include slides, supplementary audio or text files, articles to be accessed online or downloaded, and web links to other resources (Martin-Monje et al., 2017). Pre-recorded video lectures also enable the teacher to archive their teaching materials, to improve upon lecturing style and can be reused with other classes when it is not possible to conduct a face-to-face lecture (O'Callaghan et al., 2017). While some presenters may show their head, and others their upper body in the video lecture, the limitation of designing pre-recorded video lectures to express knowledge to the students is that the teachers' use of embodied resources in their pedagogy may be inhibited (Lim, 2021). This limitation may sometimes be compensated by the teacher exaggerating their vocal expression (O'Callaghan et al., 2017).

Pedagogic interaction

Pedagogic interactions can be designed for the online class through the use of scaffolding questions, quizzes or metacognitive distancing prompts (Fukukura et al., 2013; Parish-Morris et al., 2013) in the video to assess students' understanding of the course content (Wieling & Hofman, 2010). Immediate feedback can be provided to students in the form of correct answers for quizzes after students have completed them. Notwithstanding, the nature of interaction between the teacher and the students that pre-recorded videos offer is usually constrained, especially when the recordings are delivered asynchronously (Baran et al., 2013). The teacher's spontaneous responses to the students are absent and the flow of the lesson is limited to the fixed content and preset learning sequence in the video lecture.

Learning experience

The use of video lectures contributes to the students' learning experience by allowing for a clear structuring and sequencing of the lesson contents to be communicated. The lesson outlines are usually provided at the beginning of the pre-recorded lectures that contribute to the organisation in the logogenesis, or logical unfolding, of the lesson. When using pre-recorded lectures, the students' learning experience is typically shaped by the authoritative, teacher-centred and transmissionist pedagogic relations enacted between the teacher and students.

Games for learning

Research on digital games have shown how the use of games can contribute to successful learning, through the in-game experience and in supporting students' engagement and interest (Selander et al., 2018). The use of games as a semiotic technology to support learning needs to be carefully orchestrated and guided by the teacher (Toh & Lim, 2020). An example discussed here is the popular quiz game of Kahoot!. Games such as Kahoot! combine game dynamics with the potential to monitor student learning (Correia & Santos, 2017) and are increasingly popular in both physical and online learning. Kahoot! is a user-generated game quiz platform where students can compete, individually or in groups, to answer their teacher's questions. As a free online learning platform, Kahoot! has gained wide acceptance globally with more than 30 million users worldwide and positive reception of its use in teaching and learning amongst both teachers and students (Plump & LaRosa, 2017). During the COVID-19 pandemic, Kahoot! was used in Histology and Cell Biology laboratory sessions at the Faculty of Medicine in Ain Shams University to increase students' engagement (Kalleny, 2020). In Singapore, secondary school teachers have also integrated Kahoot! in their pre-recorded lessons

with PowerPoint slides to engage the students (Teng, 2020). In the university setting, we have used Kahoot! in our postgraduate course to motivate the students to read the course readings and inject an element of fun to the online lessons.

Knowledge representation

Knowledge is expressed to students using the quiz format in Kahoot!. While the use of this educational game is engaging, it is also recognised that testing knowledge using a quiz format often focuses on the students' memory skills such as the recalling of facts, and involves low metacognitive levels of learning (Bloom, 1956) as compared to the higher metacognitive skills such as explaining, applying, analysing, evaluation (reflection) and synthesis. In using Kahoot! as a semiotic technology, it is also important for teachers to get the difficulty level of questions right for the students, as student performance has been found to drop when the level of challenge becomes too high, leading to frustration (Jagušt et al., 2018).

Pedagogic interaction

The nature of interaction that a quiz game offers is in engaging students in the learning process by motivating them through gamification to participate using points, badges and leader boards (Gibson et al., 2015). When students use Kahoot!, they can get immediate feedback on the correct answers and see how they perform in relation to their peers (Baszuk & Heath, 2020; Zainuddin et al., 2020). As quiz games such as Kahoot! are simple, user-friendly, easy to learn and use (Palma et al., 2018), and do not take up much time, they can be integrated in any part of the lesson. Teachers can allow students to retake the quiz to improve their scores, especially when it comes to difficult concepts. The multiple opportunities for practice offered to students to learn from their mistakes is key for students' learning and can help increase student motivation. Notwithstanding, Kahoot! offers limited interactivity as students cannot change their answer after submission and the stressful time-pressure limits students' discussion with each other and personal contemplation from the question. The game format may also induce risk-taking and guessing behaviour to game the competition (Wang & Tahir, 2020). While encouraging students to guess the answer may not always be detrimental (Cyr & Anderson, 2018) because it still involves students thinking through the options given to them, the time pressure to submit a response during the gameplay is not conducive for the time needed for reasoning.

Learning experience

The competitive nature of games contributes to the students' learning experience by keeping students' attention after heavy repeated usage

of quiz games such as Kahoot! (Wang, 2015), improving the students' knowledge and skills (Licorish et al., 2018). Some students have also reported a higher level of knowledge retention with Kahoot! than without (Baszuk & Heath, 2020). A systematic review of 93 studies also found that Kahoot! can have a positive effect on students' learning performance, classroom dynamics, students' and teachers' attitudes, and students' anxiety (Wang & Tahir, 2020). The use of Kahoot! in online courses has also led to greater student satisfaction (Quadir et al., 2018). The game-based learning experience of using Kahoot! can also be easily applied across diverse subjects (Fuster-Guilló et al., 2019) and can be used in both the classroom and online learning contexts.

Social media for learning

A popular social media platform, such as Facebook, which was originally designed for online social interactions (Buzzetto-More, 2012), can be appropriated as a semiotic technology for learning. This can be an alternative to purpose-built learning management systems such as Moodle because Facebook arguably possesses relevant pedagogical, social and technological affordances for learning purposes (Baran, 2010; Manca & Ranieri, 2013). Facebook's technological affordance can support the setting up of a private group for the students, which allows them to interact by posting and responding to each other without the need to be connected as "friends" on their personal profile, thus keeping their professional and personal space on Facebook separate.

Knowledge representation

In appropriating Facebook as a learning platform for knowledge representation, the teacher can upload readings on the platform in the form of a link, word document or pdf file. Both the teacher and the students can also upload video recordings to be shared with the online class on the platform. Facebook has made it easy to integrate multimedia content (Livingstone, 2008) such as Kahoot! quiz questions, (pre-recorded) videos and audio clips, as well as real-time video interactions and presentations using Zoom and Microsoft Teams for collaborative online learning activities. This social affordance supports interaction amongst students in the class by providing a private and familiar environment in which students can conveniently communicate and interact with one another (Wang et al., 2012).

Pedagogic interaction

A learning platform such as Facebook offers both synchronous and asynchronous interactions. Students can either participate in the learning activities in real time or they can choose to participate in their own time

after the lesson has concluded online by posting their reflections, sharing articles or creating digital multimodal artefacts such as memes and posting them on the platform. During the online class that is held synchronously in real time, learning materials such as pre-recorded videos can be used to initiate classroom discussions. The teacher can upload a pre-recorded video on the platform and facilitate discussion by posting discussion questions for the students based on the content of the video. Students can then participate in peer-to-peer learning activities as they discuss the video content and post questions for the video creator, teacher or other students to answer.

Learning experience

Discourse analyses of students' interactions with each other in digital learning environments, such as blogs, have reported learning from students as they participated in collaborative knowledge building by responding, questioning and building on their peers' replies (Korhonen et al., 2019). Facebook, in particular, has been appropriated as a pedagogic tool for collaborative knowledge building (Churcher et al., 2014), resource/material sharing (Mazman & Usluel, 2010), academic conversations (LaRue, 2012; Lim, 2010), cross-cultural collaboration (Wang, 2012) and community building (Wang, 2011). Studies of the use of social media sites such as Facebook in higher education have also reported improved communication between teacher and students, increased accessibility to real-world practices and expertise (Smith & Lambert, 2014), improved student performance and higher student engagement (Chugh & Ruhi, 2018).

However, studies have also identified privacy concerns among students (Chugh & Ruhi, 2018) and the perceived porous boundary between teacher and students as they interact on a social media site (Smith & Lambert, 2014). In addition, the appropriation of social media as platforms for learning should not be done uncritically because platforms such as Facebook were originally designed for social networking; hence they may embed elements that detract users from the learning experience, such as advertisements and algorithmic recommendations of irrelevant posts and media. As such, education-oriented platforms, such as Edmodo, have emerged as a viable alternative by offering a Facebook-like experience, but designed with clear intentionality for education. While social media can be skilfully appropriated for pedagogical purposes, the teacher's design considerations in the judicious selection and appropriate use of the semiotic technology are fundamental as it is ultimately about it being fit for purpose. It is also important to take into account students' preferences and concerns when a social media practice is appropriated as a pedagogical practice even as the teacher seeks to engage with the students' lifeworld (Lim et al., 2021).

Following the discussion of the ways of meaning making in the three types of semiotic technologies, the following sections will reflect on what

is lost and gained in digital learning and the importance for teachers to broaden their pedagogical repertoire as designers of learning with semiotic technologies in the post-pandemic education normal.

Losses and gains in digital learning

The late Professor of Semiotics and Education, Gunther Rolf Kress, proposed a set of lenses to study "the question of gains and losses: focusing both on the material and/or semiotic means, the modes, and the material communicational means" (Kress, 2005, p. 21). Here, we apply these lenses to explore the gains and losses of digital learning. Psychologists tell us that we tend to value losses more than gains (Kahneman & Tversky, 1979). We sentimentalise and miss what is more familiar to us and resist the effort towards appreciating what the new may offer. This is reflected in the laments by teachers, students and parents alike on how learning online is never quite the same as attending physical classes. In recognition of the loss aversion tendency, it is perhaps useful to start by counting the cost of digital learning, framed in terms of the changes that digital learning brings.

Teaching is different in digital learning. The teacher is unable to sense the responses of students in the class by scanning their faces and is limited in their use of gestures, positioning and movement as part of their pedagogy (Lim, 2021). Even in video conferencing when the teacher live-casts their lessons, the typical "talking head" with the occasional medium shot to include gestures offers an impoverished form of embodied teaching. The teacher's multimodal orchestration of embodied semiotic resources, such as gestures, positioning and movement, that they use in the physical classroom is missed, as embodied teaching is remediated with the screen when learning goes virtual.

Another loss in digital learning is the physicality that is core to human connection. Digital learning cannot replace the human connection in face-to-face learning. The notion of a community of students coming together for a teaching and learning experience is reimagined in a virtual meeting. Interpersonal exchanges, such as banter and humour, are remediated digitally via emojis and short (private) chat messages. The emotional connection formed in sharing a quip when seated next to another person is lost. Community is now virtual, and interactions are constrained by the affordances of the online medium. Digital learning also takes away the materiality of being in the classroom of an educational institution. The familiar sense of a structure and routine – productive to effective learning – is replaced with an all too easy access to the digital learning experience in the comfort of one's own home, subjected to the distractions of home-life.

Despite the obvious losses, we argue that much can be gained in digital learning, particularly with the appropriate use of semiotic technologies as tools for teachers to design for meaningful learning experiences. One

opportunity that digital learning offers is the shift from a teacher-centred pedagogy, to a relationship-centred one (Matthiessen et al., 2020). Face-to-face learning tends to privilege teacher-centred teaching, where the teacher performs as the sage on the stage. However, it is increasingly recognised that the teacher need not be the sole knowledge authority. In designing digital learning experiences, the teacher can explore the different ways that knowledge can be communicated with technology. The teacher can choose to live stream the lecture, use a video excerpt from an expert, curate and have students view a multimedia presentation on a subject or read a series of articles for responses in a forum. Rather than defaulting to teacher talk, the teacher can explore the most appropriate ways to communicate knowledge and respond to the profiles and needs of the students. In this, the teacher is decentred as the knowledge source in the classroom. As such, digital learning can bring about greater student-centricity where the interactions shift from students with the teacher to students amongst themselves. While it may be initially uncomfortable for the teacher to not be the centre of all discussions, the democratising of the classroom in online learning encourages engagement and inclusivity.

In digital learning, interactions also need not be limited to one at a time. Simultaneous discussions can occur amongst students in discussion threads and chats. Discussions where they clarify, build on and question each other's ideas are part of collaborative learning and collective knowledge-building. Digital learning, when well designed, can also be more conducive to students' participation and can democratise the classroom by creating a safe environment for all to participate. Every student, even the shy ones, can "have their voices heard" by expressing their views through their posts and comments. This could contrast with their classroom experiences where the class discussions are dominated by the more vocal students. Students can develop their communication, collaboration and digital literacy skills as they participate in digital learning (Laurillard, 2002, 2009; Laurillard & Ljubojevic, 2011). By having autonomy over the pace of their learning, students can develop a sense of ownership (Bower & Hedberg, 2010; Garrett, 2011) and be intrinsically motivated (Deci & Ryan, 1985) in self-directed learning (Kim et al., 2014; Zhu & Bonk, 2019; Zhu et al., 2020).

Post-pandemic education normal

The conscription in 2020 of digital learning during the pandemic may be temporary. However, the change presents an opportunity for teachers, as they design digital learning experiences, to reflect on the nature of learning as well as how teaching can and should be in the digital age, such as the initiative by scholars in the PanMeMic Collective (Adami et al., 2020) and the EPAT Collective Project (Peters et al., 2020). Positive

outcomes from the pandemic include advancement in the digitalisation of education and the expanding of the pedagogical repertoire of teachers as well as a greater valuing and deeper integration of digital learning experiences in the new education normal.

In designing meaningful digital learning experiences, teachers can be supported in the building of their capacity as designers of learning and in their use of semiotic technologies through professional development activities and peer learning in communities of practice (Sharari et el., 2018; Wenger, 1998) that both teachers and educational researchers are a part of. The development and implementation of teachers' new pedagogical practices can also be conducted through an iterative process of guided dialogue between teachers and educational researchers during professional development activities (Lim et al., 2019; Pang et al., 2015).

We posit that digital learning cannot be a substitute for physical learning and should not be expected to be so. Digital learning offers new ways of learning, and when designed well, can be superior to physical learning (Kalantzis & Cope, 2020). In the new education normal, we will not just look back to a time when we had no choice but to have digital learning; we can also look forward to a time when we can choose to design appropriate learning experiences, physical or digital, for what is gained in learning.

Conclusion

This chapter has discussed the teacher's use of three types of semiotic technologies, namely, the ubiquitous video lectures, digital games for learning and social media platforms such as Facebook in its appropriation as a learning platform to design the students' learning experience. We have discussed how the three types of semiotic technologies can be used by teachers to represent knowledge, express pedagogic relations and organise learning through the affordances of these semiotic technologies. We have also reflected on the losses and gains in digital learning from using these semiotic technologies. We argue that teachers in today's digital age need to expand their pedagogical repertoire beyond designing learning in the classroom to designing learning in the online environment. The considerations offered in this chapter are a step towards supporting the teacher in designing effective blended learning experiences in the post-pandemic education normal.

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References

Adami, E., Al Zidjaly, N., Canale, G., Djonov, E., Ghiasian, M. S., Gualberto, C., Karatza, S., Lim, F. V., Pedrazzini, A., Pirini, J., Wildfeuer, J., & Zhang, Y. on behalf of The PanMeMic Collective. (2020). PanMeMic Manifesto: Making Meaning in the COVID-19 Pandemic and the Future of Social Interaction. *Working Papers in Urban Language & Literacies*.

Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: The challenges and opportunities. *Interactive Learning Environments*, 1–13. Advance online publication. https://doi.org/10.1080/10494820.2020.1813180

Altınay, Z. (2017). Evaluating peer learning and assessment in online collaborative learning environments. *Behaviour & Information Technology, 36*(3), 312–320. https://doi.org/10.1080/0144929X.2016.1232752

Ayanso, A., & Lertwachara, K. (2015). An analytics approach to exploring the link between ICT development and affordability. *Government Information Quarterly, 32*(4), 389–398. http://dx.doi.org/10.1016/j.giq.2015.09.009

Baran, B. (2010). Facebook as a formal instructional environment. *British Journal of Educational Technology, 41*(6), E146–E149. https://doi.org/10.1111/j.1467-8535.2010.01115.x

Baran, E., Correia, A.-P., & Thompson, A. D. (2013). Tracing successful online teaching in higher education: Voices of exemplary online teachers. *Teachers College Record: The Voice of Scholarship in Education, 115*(3), 1–41. https://doi.org/10.1177/016146811311500309

Baszuk, P. A., & Heath, M. L. (2020). Using Kahoot! to increase exam scores and engagement. *Journal of Education for Business, 95*(8), 548–552. https://doi.org/10.1080/08832323.2019.1707752

Bloom, B. S. (1956). *Taxonomy of educational objectives, the classification of educational goals*. David McKay.

Bower, M., & Hedberg, J. G. (2010). A quantitative multimodal discourse analysis of teaching and learning in a web-conferencing environment – The efficacy of student-centred learning designs. *Computers & Education, 54*(2), 462–478. https://doi.org/10.1016/j.compedu.2009.08.030

Bryson, J. R., & Andres, L. (2020). Covid-19 and rapid adoption and improvisation of online teaching: curating resources for extensive versus intensive online learning experiences. *Journal of Geography in Higher Education, 44*(4), 608–623. https://doi.org/10.1080/03098265.2020.1807478

Buzzetto-More, N. A. (2012). Social networking in undergraduate education. *Interdisciplinary Journal of Information, Knowledge, and Management, 7*(1), 63–90. https://doi.org/10.28945/1578

Castrillo, M. D. (2014). Language teaching in MOOCs: The integral role of the instructor. In E. Martín-Monje & E. Barcena (Eds.), *Language MOOCs. Providing learning, transcending boundaries* (pp. 67–90). De Gruyter Open. www.degruyter.com/downloadpdf/books/9783110422504/9783110422504.5/9783110422504.5.pdf

Chugh, R., & Ruhi, U. (2018). Social media in higher education: A literature review of Facebook. *Education and Information Technologies, 23*(2), 605–616. https://doi.org/10.1007/s10639-017-9621-2

Churcher, K. M. A., Downs, E., & Tewksbury, D. (2014). "Friending" Vygotsky: A social constructivist pedagogy of knowledge building through classroom social media use. *Journal of Effective Teaching, 14*(1), 33–50.

Compen, B., de Witte, K., & Schelfhout, W. (2020). The impact of teacher engagement in an interactive webinar series on the effectiveness of financial literacy education. *British Journal of Educational Technology, 52*(1), 411–425. https://doi.org/10.1111/bjet.13013

Correia, M., & Santos, R. (2017). Game-based learning: The use of Kahoot in teacher education. *2017 International Symposium on Computers in Education (SIIE)*. https://doi.org/10.1109/siie.2017.8259670

Cyr, A., & Anderson, N. D. (2018). Learning from your mistakes: Does it matter if you're out in left foot, I mean field?, *Memory*, *26*(9), 1281–1290. https://doi.org/10.1080/09658211.2018.1464189

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum.

Djonov, E., & van Leeuwen, T. (2012). Normativity and software: A multimodal social semiotic approach. In S. Norris (Ed.), *Multimodality and practice: Investigating theory-in-practice-through-methodology* (pp. 119–137). Routledge.

Djonov, E., & van Leeuwen, T. (2020). Semiotic software through the lens of systemic functional theory. In J. R. Martin, J. S. Knox, & D. Caldwell (Eds.), *Appliable linguistics and social semiotics: Developing theory from practice*. Bloomsbury Academic.

Fukukura, J., Ferguson, M. J., & Fujita, K. (2013). Psychological distance can improve decision making under information overload via gist memory. *Journal of Experimental Psychology: General, 142*(3), 658–665. https://doi.org/10.1037/a0030730

Fuster-Guilló, A., Pertegal-Felices, M. L., Jimeno-Morenilla, A., Azorín-López, J., Rico-Soliveres, M. L., & Restrepo-Calle, F. (2019). Evaluating impact on motivation and academic performance of a game-based learning experience using Kahoot. *Frontiers in Psychology, 10*(2843). https://doi.org/10.3389/fpsyg.2019.02843

Garrett, N. (2011). An eportfolio design supporting ownership, social learning, and ease of use. *Educational Technology & Society, 14*(1), 187–202.

Gee, J. P. (2005). Semiotic social spaces and affinity spaces: From *The Age of Mythology* to today's schools. In D. Barton & K. Tusting (Eds.), *Beyond communities of practice: Language, power and social context* (pp. 214–232). Cambridge University Press.

Gibson, D., Ostashewski, N., Flintoff, K., Grant, S., & Knight, E. (2015). Digital badges in education. *Education and Information Technologies, 20*(2), 403–410. https://doi.org/10.1007/s10639-013-9291-7

Gibson, J. J. (1966). *The senses considered as perceptual systems.* Allen and Unwin.

Gikas, J., & Grant, M. M. (2013). Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. *The Internet and Higher Education, 19*, 18–26. https://doi.org/10.1016/j.iheduc.2013.06.002

Gros, B. (2016). The dialogue between emerging pedagogies and emerging technologies. In B. Gros & M. M. Kinshuk. (Eds.), *The future of ubiquitous learning* (pp. 3–23). Lecture Notes in Educational Technology. Springer. https://doi.org/10.1007/978-3-662-47724-3_1

Guldberg, K. (2008). Adult learners and professional development: peer-to-peer learning in a networked community. *International Journal of Lifelong Education, 27*(1), 35–49. https://doi.org/10.1080/02601370701803591

Hew, K. F., & Cheung, W. S. (2014). Students' and instructors' use of massive open online courses (MOOCs): Motivations and challenges. *Educational Research Review, 12*, 45–58. https://doi.org/10.1016/j.edurev.2014.05.001

Iiyoshi, T., Hannafin, M. J., & Wang, F. (2005). Cognitive tools and student-centred learning: Rethinking tools, functions and applications. *Educational Media International, 42*(4), 281–296. http://dx.doi.org/10.1080/0952398050 0161346

Jagušt, T., Botički, I., & So, H. J. (2018). Examining competitive, collaborative and adaptive gamification in young learners' math learning. *Computers & Education, 125*, 444–457. https://doi.org/10.1016/j.compedu.2018.06.022

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica, 47*(2), 263–291. https://doi.org/10.2307/1914185

Kalantzis, M., & Cope, B. (2020). After the COVID-19 crisis: Why higher education may (and perhaps should) never be the same. https://cgscholar.com/community/community_profiles/new-learning/community_updates/114650

Kalleny, N. K. (2020). Advantages of Kahoot! Game-based formative assessments along with methods of its use and application during the COVID-19 Pandemic in various live learning sessions. *The Journal of Microscopy & Ultrastructure, 8*(4), 175–185. https://dx.doi.org/10.4103/JMAU.JMAU_61_20

Kim, R., Olfman, L., Ryan, T., & Eryilmaz, E. (2014). Leveraging a personalized system to improve self-directed learning in online educational environments. *Computers & Education, 70*, 150–160. https://doi.org/10.1016/j.compedu.2013.08.006

König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: Teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education, 43*(4), 608–622. https://doi.org/10.1080/02619768.2020.1809650

Korhonen, A.-M., Ruhalahti, S., & Veermans, M. (2019). The online learning process and scaffolding in student teachers' personal learning environments. *Education and Information Technologies, 24*(3), 755–779. https://doi.org/10.1007/s10639-018-9793-4

Kraft, M. A., & Simon, N. S. (2020). Teachers' experiences working from home during the COVID-19 pandemic. https://f.hubspotusercontent20.net/hubfs/2914128/Upbeat%20Memo_Teaching_From_Home_Survey_June_24_2020.pdf

Kress, G. (2005). Gains and losses: New forms of texts, knowledge, and learning. *Computers and Composition, 22*(1), 5–22. https://doi.org/10.1016/j.compcom.2004.12.004

Kress, G. (2015). Gunther Kress. In T. H. Andersen, M. Boeriis, E. Maagerø, & E. Seip Tønnessen (Eds.), *Social semiotics: Key figures, new directions* (pp. 69–92). Routledge.

Kress, G., & Selander, S. (2012). Multimodal design, learning and cultures of recognition. *The Internet and Higher Education*, *15*(4), 265–268. https://doi.org/10.1016/j.iheduc.2011.12.003

Lankshear, C., & Knobel, M. (2007). Introduction. In M. Knobel & C. Lankshear (Eds.), *A new literacies sampler* (pp. 1–24). Peter Lang.

LaRue, E. M. (2012). Using Facebook as course management software: A case study. *Teaching and Learning in Nursing*, *7*(17), 17–22. https://doi.org/10.1016/j.teln.2011.07.004

Laurillard, D. (2002). *A conversational framework for the effective use of learning technologies*. Routledge.

Laurillard, D. (2009). The pedagogical challenges to collaborative technologies. *International Journal of Computer-Supported Collaborative Learning*, 4(1), 5–20. https://doi.org/10.1007/s11412-008-9056-2

Laurillard, D., & Ljubojevic, D. (2011). Evaluating learning designs through the formal representation of pedagogical patterns. In C. Kohls & J. Wedkind (Eds.), *Investigations of e-learning patterns: Context factors, problems and solutions* (pp. 86–105). IGI Global. http://dx.doi.org/10.4018/978-1-60960-144-7.ch006

Licorish, S. A., Owen, H. E., Daniel, B., & George, J. L. (2018). Students' perception of Kahoot!'s influence on teaching and learning. *Research and Practice in Technology Enhanced Learning*, 13(9). https://doi.org/10.1186/s41039-018-0078-8

Lim, F. V. (2021). *Designing learning with embodied teaching: Perspectives from multimodality*. Routledge.

Lim, F. V., & Hung, D. (2016). Teachers as learning designers: What Technology has to do with learning. *Educational Technology, 56*(4), 26–29. www.jstor.org/stable/44430473

Lim, F. V., & Toh, W. (2020a). Children's digital multimodal composing: Implications for learning and teaching. *Learning, Media and Technology, 45*(4), 422–432. https://doi.org/10.1080/17439884.2020.1823410

Lim, F. V., & Toh, W. (2020b). How to teach digital reading? *Journal of Information Literacy, 14*(2), 24–43. https://doi.org/10.11645/14.2.2701

Lim, F. V., Kwan, Y. M., & Poh, M. L. (2019). Spreading educational technology innovations: Cultivating communities. In D. Hung, S. S. Lee, Y. Toh, A. Jamaludin, & L. Wu (Eds.), *Innovations in educational change. Education Innovation Series*. (pp. 65–83). Springer. https://doi.org/10.1007/978-981-13-6330-6_4

Lim, F. V., Wee, L., Teo, J., & Ng, S. (2017). Massive Open and Online Courses and Open Education Resources in Singapore. *Journal of Southeast Asian Education, 1*, 1–13. https://arxiv.org/pdf/1708.08743.pdf

Lim, F. V., Weninger, C., & Nguyen, T. T. H. (2021). "I expect boredom" – Students' experiences and expectations of multiliteracies learning. *Literacy*, 55(2) 102–112. https://doi.org/10.1111/lit.12243

Lim, T. (2010). The use of Facebook for online discussions among distance learners. *Turkish Online Journal of Distance Education, 11*(4), 72–81.

Livingstone, S. (2008). Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media and Society, 10*(3), 393–411. https://doi.org/10.1177%2F1461444808089415

Lockee, B. B. (2021). Shifting digital, shifting context: (Re)considering teacher professional development for online and blended learning in the COVID-19 era. *Educational Technology Research and Development, 69*, 17–20. https://doi.org/10.1007/s11423-020-09836-8

Manca, S., & Ranieri, M. (2013). Is it a tool suitable for learning? A critical review of the literature on Facebook as a technology-enhanced learning environment. *Journal of Computer Assisted Learning, 29*(6), 487–504. https://doi.org/10.1111/jcal.12007

Martin-Monje, E., Castrillo, M. D., & Manana-Rodriguez, J. (2017). Understanding online interaction in language MOOCs through learning analytics. *Computer Assisted Language Learning, 31*(3), 251–272. https://doi.org/10.1080/09588221.2017.1378237

Matthiessen, C. M. I. M., Wang, B., & Ma, Y. (2020). Applying Systemic Functional Linguistics to Educational Linguistics: Some Reflections. In L. Lai, M. Yan, & G. Wang (Eds.), *Educational linguistics studies Volume 2* (pp. 1–23). East China Normal University Press.

Mazman, S. G., & Usluel, Y. K. (2010). Modeling educational usage of Facebook. *Computers & Education, 55*(2), 444–453. https://doi.org/10.1016/j.compedu.2010.02.008

Mills, K. A. (2010). A review of the "Digital Turn" in the New Literacy studies. *Review of Educational Research, 80*(2), 246–271. https://doi.org/10.3102%2F0034654310364401

Ministry of Education (2021). *Strengthening Digital Literacy*. www.moe.gov.sg/microsites/cos2020/refreshing-our-curriculum/strengthen-digital-literacy.html

Nagata, J. M., Magid, H. S. A., & Gabriel, K. P. (2020). Screen time for children and adolescents during the Coronavirus Disease 2019 Pandemic. *Obesity, 28*(9), 1582–1583. https://doi.org/10.1002/oby.22917

The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*(1), 60–93. https://doi.org/10.17763/haer.66.1.17370n67v22j160u

Ng, P. T. (2020). Timely change and timeless constants: COVID-19 and educational change in Singapore. *Educational Research for Policy and Practice, 20*, 19–27. https://doi.org/10.1007/s10671-020-09285-3

Nicholson, B. (2013). The digital turn: Exploring the methodological possibilities of digital newspaper archives. *Media History, 19*(1), 59–73. https://doi.org/10.1080/13688804.2012.752963

Norman, D. (1988). *The design of everyday things*. Basic Books.

O'Callaghan, F. V., Neumann, D. L., Jones, L., & Creed, P. A. (2017). The use of lecture recordings in higher education: A review of institutional, student, and lecturer issues. *Education and Information Technologies, 22*, 399–415. https://doi.org/10.1007/s10639-015-9451-z

Page, A., Charteris, J., Anderson, J., & Boyle, C. (2021). Fostering school connectedness online for students with diverse learning needs: inclusive education in Australia during the COVID-19 pandemic. *European Journal of Special Needs Education, 36*(1), 142–156. https://doi.org/10.1080/08856257.2021.1872842

Palma, L. O., Tobías, P. J. B., Prieto, M. C., León, F. J. M., & Ruiz Á. A. M. (2018). Use of Kahoot and EdPuzzle by Smartphone in the classroom: The design of a methodological proposal. In L. Uden, D. Liberona, & J. Ristvej (Eds.), *Learning technology for education challenges* (pp. 37–47). LTEC 2018. Communications in Computer and Information Science, vol. 870. Springer.

Pang, E. S., Lim, F. V., Choe, K. C., Peters, C., & Chua, L. C. (2015). System scaling in Singapore: The STELLAR story. In C. K. Looi & L. Teh (Eds.), *Scaling educational innovations. Education Innovation Series* (pp. 105–122). Springer. https://doi.org/10.1007/978-981-287-537-2_6

Parish-Morris, J., Mahajan, N., Hirsh-Pasek, K., Golinkoff, R. M., & Collins, M. F. (2013). Once upon a time: Parent–child dialogue and storybook reading in

the electronic era. *Mind, Brain, and Education, 7*(3), 200–211. https://doi.org/10.1111/mbe.12028

Peters, M. A., Rizvi, F., McCulloch, G., Gibbs, P., Gorur, R., Hong, M., … Misiaszek, L. (2020). Reimagining the new pedagogical possibilities for universities post-Covid-19. *Educational Philosophy and Theory, 52*, 1–45. https://doi.org/10.1080/00131857.2020.1777655

Plump, C. M., & LaRosa, J. (2017). Using Kahoot! in the classroom to create engagement and active learning: A game-based technology Solution for eLearning novices. *Management Teaching Review, 2*(2), 151–158. https://doi.org/10.1177%2F2379298116689783

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*(5), 1–6. http://doi.org/10.1108/10748120110424816

Quadir, B., Chen, N. S., & Zhang, J. (2018). Learner satisfaction toward using IRS in synchronous sessions of an online course. *Proceedings of the 4th International Conference on Frontiers of Educational Technologies,* ACM 2018, pp. 10–15. https://doi.org/10.1145/3233347.3233354

Rashid, T., & Asghar, H. M. (2016). Technology use, self-directed learning, student engagement and academic performance: Examining the interrelations. *Computers in Human Behavior, 63*, 604–612. https://doi.org/10.1016/j.chb.2016.05.084

Russell, M., & Abrams, L. (2004). Instructional uses of computers for writing: The effect of state testing programs. *Teachers College Record, 106*(6), 1332–1357. https://doi.org/10.1177/016146810410600611

Scott, P., Castañeda, L., Quick, K., & Linney, J. (2009). Synchronous symmetrical support: A naturalistic study of live online peer-to-peer learning via software videoconferencing. *Interactive Learning Environments, 17*(2), 119–134. https://doi.org/10.1080/10494820701794730

Selander, S., Lim, F. V., Wiklund, M., & Fors, U. (2018). Digital games and simulations for learning. In H. C. Arnseth, T. Hanghoj, T. D. Henriksen, M. Misfeldt, S. Selander, & R. Ramberg (Eds.), *Games and education: Designs in and for learning* (pp. 17–27). Sense Publishers. https://doi.org/10.1163/9789004388826_002

Sharari, B. H. I., Lim, F. V., Hung, D., & Kwan, Y. M. (2018). Cultivating sustained professional learning within a centralised education system. *School Effectiveness and School Improvement, 29*(1), 22–42. https://doi.org/10.1080/09243453.2017.1366343

Sin, Y. (2020, June 18). Coronavirus pandemic – Each secondary student to get learning device by next year. *The Straits Times.* www.straitstimes.com/politics/each-secondary-student-to-get-learning-device-by-next-year

Sindoni, M. G., Adami, E., Karatza, S., Marenzi, I., Moschini, I., Petroni, S., & Rocca, M. (2019). The common framework of reference for intercultural digital literacies. *EU-MADE4LL.* www.eumade4ll.eu/common-framework-of-reference-for-intercultural-digital-literacy/

Smith, T., & Lambert, R. (2014). A systematic review investigating the use of Twitter and Facebook in university-based healthcare education. *Health Education, 114*(5), 347–366. https://doi.org/10.1108/HE-07-2013-0030

Teng, A. (2020). Coronavirus: How teachers with children manage dual roles as educators and parents. *The Straits Times.* www.straitstimes.com/singapore/education/how-teachers-with-children-manage-dual-roles-as-educators-and-parents

Toh, W., & Lim, F. V. (2020). Using video games for learning: developing a meta-language for digital play. *Games and Culture, 16*(5), 583–610. https://doi.org/10.1177%2F1555412020921339

van Leeuwen, T. (2017). Multimodal literacy, *mETAphor*, *4*, 17–23.

van Leeuwen, T., Djonov, E., & O'Halloran, K. L. (2013). "David Byrne really does love PowerPoint": Art as research on semiotics and semiotic technology. *Social Semiotics, 23*(3), 409–423. https://doi.org/10.1080/10350330.2012.738998

Wang, A. I., & Tahir, R. (2020). The effect of using Kahoot! for learning – A literature review. *Computers & Education, 149*, 1–22. https://doi.org/10.1016/j.compedu.2020.103818

Wang, A. I. (2015). The wear out effect of a game-based student response system. *Computers & Education, 82*, 217–227. https://doi.org/10.1016/j.compedu.2014.11.004

Wang, C.-M. (2011). Instructional design for cross-cultural online collaboration: Grouping strategies and assignment design. *Australasian Journal of Educational Technology, 27*(2), 243–258. https://doi.org/10.14742/ajet.968

Wang, C.-M. (2012). Using Facebook for cross-cultural collaboration: the experience of students from Taiwan. *Educational Media International, 49*(1), 63–76. http://dx.doi.org/10.1080/09523987.2012.662625

Wang, Q., Woo, H. L., Quek, C. L., Yang, Y., & Liu, M. (2012). Using the Facebook group as a learning management system: An exploratory study. *British Journal of Educational Technology, 43*(3), 428–438. https://doi.org/10.1111/j.1467-8535.2011.01195.x

Wang, Y.-M. (2010). From teacher-centredness to student-centredness: Are pre-service teachers making the conceptual shift when teaching in information age classrooms? *Educational Media International, 39*(3–4), 257–265. https://doi.org/10.1080/09523980210166710

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity.* Cambridge University Press.

Wieling, M. B., & Hofman, W. H. A. (2010). The impact of online video lecture recordings and automated feedback on student performance. *Computers & Education, 54*(4), 992–998. https://doi.org/10.1016/j.compedu.2009.10.002

Zainuddin, Z., Chu, S. K. W., Shujahat, M., & Perera, C. J. (2020). The impact of gamification on learning and instruction: A systematic review of empirical evidence. *Educational Research Review*, *30*, 1–23. https://doi.org/10.1016/j.edurev.2020.100326

Zhao, S., Djonov, E., & van Leeuwen, T. (2014). Semiotic technology and practice: a multimodal social semiotic approach to PowerPoint. *Text & Talk, 34*(3), 349–375. https://doi.org/10.1515/text-2014-0005

Zhu, M., & Bonk, C. J. (2019). Designing MOOCs to facilitate participant self-monitoring for self-directed learning. *Online Learning, 23*(4), 106–134. http://dx.doi.org/10.24059/olj.v23i4.2037

Zhu, M., Bonk, C. J., & Doo, M. Y. (2020). Self-directed learning in MOOCs: exploring the relationships among motivation, self-monitoring, and self-management. *Educational Technology Research and Development, 68*, 2073–2093. https://doi.org/10.1007/s11423-020-09747-8

5 Phraseology and imagery in UK public health agency COVID-19 tweets

David Oakey, Christian Jones and Kay L. O'Halloran

Introduction

A large amount of public health information was produced to inform the public about the outbreak of COVID-19. Textual elements were accompanied by the visual: Images and videos of medical staff and other frontline workers, patients, medical facilities, politicians, and members of the public and public spaces. Many studies exist on the language of COVID-19 (e.g. Hunston, 2020; Oxford English Dictionary (OED), 2020) and the effectiveness of public health information in terms of message organisation and "framing" (Banerjee & Meena, 2021; Greszczuk, 2020; Oliver, 2020). What has been less studied so far has been the way textual and visual information representations combine in various media formats to impact on how the messages are received, understood and acted upon. In this regard, it is critical to first understand the common forms and functions of language and images as a contribution to understanding the effectiveness of current and future public health messages. However, we are not aware of multimodal studies that have explored in detail the language and imagery used in public health messages related to the COVID-19 pandemic.

The first stage of this project therefore, as reported in this chapter, uses corpus linguistics and social semiotic analysis to examine the phraseology and imagery of public health information to understand how linguistic and visual representations combine to shape COVID-19 public health information messages. Discovering and disseminating this new knowledge requires multidisciplinarity and multimodality. In this case, we draw on our expertise in the field of applied linguistics and multimodal social semiotics (e.g. Halliday, 1978; O'Halloran, Tan, & Wignell, 2019; van Leeuwen, 2005). In linguistics, "phraseology" seeks to describe how words tend to form clusters that appear to be the result of a single choice (e.g. *I don't know*). Such patterns carry with them particular meanings and thus form the narrative of particular forms of information. At the same time, multimodal social semiotic analysis identifies the functions of major messaging components: For example, happenings constructed

through processes, participants and circumstances; the logical relations between these happenings; and the stance towards them. We combine these approaches and use corpus linguistics and multimodal social semiotic analysis to examine the phraseology and imagery of public health information to understand how linguistic and visual representations combine to shape COVID-19 public health information messages.

General research aims/questions

As already mentioned, this research project looks at how people understand the language and images in public health information about COVID-19. Many researchers in health communication, psychology and the media have already studied how well public health messages are received by the public, but we do not know enough about how the language and images used in this public health information work together to convey certain meanings. Crucially, we do not yet understand how frequent phrases combine with visual representations to shape the overall meaning of public health messages. Such understanding is extremely important both now and for the improvement of future COVID-19 public health messages. The broad aims of this chapter are therefore as follows:

1. To identify the most common phrases used by UK public health agencies to provide public health information about COVID-19 on Twitter
2. To identify the common images used with the aforementioned common phrases
3. To understand how both phrases and images function in this public health discourse

As mentioned, this study is part of a broader project, which has a main aim of applying this analysis to focus groups made up of speakers of English as an additional language (EAL) in the UK. The aim here is to investigate how well these common phrases and images are understood by this group and how they could be improved for future public health information campaigns. This chapter focuses on the first part of this study; namely, the identification of the most common phrases and images used by UK public health agency information about COVID-19 on Twitter.

Literature review

This section reviews previous work in the areas drawn upon for this study: It briefly describes work on language, corpora and COVID-19, then discusses corpus design issues, phraseology and multimodal social semiotic analysis.

Language, corpora and COVID-19

The disease caused by SARS-CoV-2 virus was given the name "COVID-19" by the World Health Organization early in 2020 (WHO, 2020). This name soon appeared as a lexical item in written and spoken news and social media texts. As these texts became archived in online corpora, studies by corpus linguists soon revealed the rapid expansion in use of the words "coronavirus" and "COVID-19" between December 2019 and March 2020, and the associated rise in frequent collocations of these terms: *Outbreak, infection, spread* and *fear* (OED, 2020). Frequent collocations of other words also changed rapidly. Prior to December 2019, for example, the *Oxford English Dictionary* (OED) corpus showed that the most common collocates of *remote* were nouns such as *control*, *island* and *village*, but following the rise in the numbers of people working from home by the end of 2020, the most frequent collocates of *remote* had suddenly become *working, learning* and *work force* (Schuessler, 2020, cited in Oakey, 2022). Such analysis is revealing about recent language changes and serves to illustrate the dynamic nature of phraseology. A corpus such as the British National Corpus compiled in the early 1990s (BNC World, 2001), for example, has no examples of *remote learning*.

Beyond immediate studies of changing language use, corpus linguists then produced studies of how language use reflected people's experiences during the COVID-19 outbreak, and how their "attitudes and beliefs are constructed and mediated through language use" (Mahlberg & Brookes, 2021, p. 441). Some researchers have collected corpora specifically to identify the effects of the pandemic on language use. For example, the Coronavirus Corpus (Davies, 2021) contains COVID-related news articles that are included if they contain at least two occurrences of the words *coronavirus*, *COVID* or *COVID-19*, or have one of several words in their titles, such as *at-risk*, *cases*, *confirmed*, *contagious*, *hydroxychloroquine*, *outbreak*, *pandemic*, *stay-at-home* and so on. Such corpora are of course useful and they enable us to better understand how news discourse about this pandemic operates linguistically speaking, and as Davies (2021, p. 587) points out, "by creating a stand-alone corpus dealing just with COVID-19, the corpus will be much smaller, and searches will be faster".

However, to some degree, a specialised corpus "about" COVID stands in opposition to Sinclair's (2005, p. 5) dictum that "the contents of a corpus should be selected without regard for the language they contain, but according to their communicative function in the community in which they arise". Collecting a corpus on linguistic grounds by using search words fixes the epistemological horizon the researchers already have in mind before they interrogate the corpus, and thus pre-imposes "aboutness" on the data. Sinclair (2005), by contrast, observed that the whole point of a corpus collected without prior reference to linguistic criteria was that it could reveal unpredicted usages that researchers could

not or would not have thought of themselves beforehand in the form of search words. In collecting the data for the corpus in this study, therefore, we have sought to avoid using pre-imposed linguistic criteria (see "Methodology" section for more details). Moreover, it is difficult to establish precisely whether something is or is not "about" COVID-19. The tweet in corpus extract 1, for example, is about cervical screening rather than COVID-19 per se, and yet it relates to conditions imposed by the pandemic:

> Corpus extract 1.

> Cervical screening is still happening and is considered essential travel, so please don't ignore your next invite.
>
> (P_H_S_official, 22 January 2021)

While the context around other n-grams in our data sometimes contained words related to cancer, flu or mental health, these words were in tweets sent only because of circumstances arising from the pandemic. So, while these tweets, therefore, may not have contained the specific lexical items used by Davies, they can still be said to be "about" COVID-19.

Phraseology and n-grams

The principal textual unit of analysis used in this chapter is the *n-gram*, a fixed combination of *n* words that occurs repeatedly in a corpus. The study of n-grams belongs to the area of phraseology, which is concerned with how words combine and make up users' repertoires of formulaic language. Since the only practicable way to identify and count n-grams is to use a computer corpus, the description and study of these items has been a relatively recent addition to the field since the application of computers to the study of language. The traditional focus of phraseological study was on lexical and syntactic relations between words, as in the case of collocation and colligation (Carter, 1998; Firth, 1957), the somewhat quirky semantic behaviour of language features such as idioms and proverbs (Moon, 1998), and socially conventionalised acts such as greetings, prayers and ritual formulae (Glaser, 1998). Phraseologists were interested in how the interplay between spoken and written formulaic utterances leads to words tending to cluster in frequently occurring patterns that appear to be the result of a single psycholinguistic choice by the speaker or writer, and which are formed appropriately to meet the expectations of particular discourse communities (Howarth, 1998; Pawley & Syder, 1983; Wood, 2002; Wray, 2002).

The introduction of computer corpora in phraseology revealed how common n-grams were in language production and this ubiquity led to insights into language cognition and processing, suggesting that n-grams were part of a single psycholinguistic choice by the user (Ellis, 2008;

Schmitt et al., 2004; Sinclair, 1991). This observation led to two decades during which the n-gram and, a closely related form, the lexical bundle (an n-gram occurring in at least ten different texts at least 40 times per million words) (Biber et al., 1999) were widely analysed in both spoken and written corpora (Oakey, 2020). N-grams first were used to illustrate differences in form between registers of English. A key observation, for example, was that in academic prose lexical bundles (Biber et al., 1999, p. 1012) comprised mostly noun phrase elements such as *the end of the*, while lexical bundles in conversation usually contained fragments of clauses or verb phrases, e.g. *I don't know what* (Biber et al., 1999, p. 1002).

In addition to their structural forms, n-grams were then analysed in terms of their discourse function (Biber, 2006; Biber et al., 2004; Cortes, 2004; Hyland, 2008) aligning with Halliday's (Halliday & Matthiessen, 2014) metafunctional categories of the ideational, interpersonal and textual (Oakey, 2020). In Cortes's taxonomy (Cortes, 2004, p. 41) referential or ideational n-grams such as *at the beginning of* and *the end of the* function as time, place or text markers. Interpersonal stance n-grams such as *I don't know why* and *are more likely to* express attitudes that frame some other proposition, while text organizers carry the message in relation to the surrounding discourse, such as marking contrast, e.g. *on the other hand*, causation, e.g. *as a result of*, or emphasis, e.g. *it is important to*.

Both these formal and functional aspects of n-grams are used in the research in the current chapter to reveal more about the textual side of frequent messages in UK public health agency tweets. That said, tweets are not conveyed just using words, but by the juxtaposition of pictures, text and video. For this reason, this study also investigates "how language, images and other resources work together to create meaning" (O'Halloran et al., 2016, p. 256) to identify the influence of the image on understanding of the text and the influence of the text on understanding of the image.

Multimodality

As long recognised in multimodal studies (e.g. Bateman, 2014; Kress & van Leeuwen, 2020; Tan et al., 2020; van Leeuwen, 2005), meaning is the result of the integration of different semiotic resources; in this case the text and images (and videos), which work together to construct the UK Public Health agency messages. In what follows, we examine how the text and images work together to co-contextualise or re-contextualise the meanings made by each semiotic resource. That is, do the text and images function together to reinforce and expand the meaning of the public health messages, or is there some form of semiotic dissonance between the two? The text and images in the Public Health England (PHE) tweets about COVID-19 were investigated using the Multimodal

Analysis Platform (MAP),[1] a cloud-based application for collecting, indexing, storing and analysing online media texts (O'Halloran et al., 2021). In this study, MAP was used to collect the Twitter data and identify the most common n-grams and the accompanying images.

Specific research questions

Bringing together the separate strands of work on the areas on phraseology, corpus linguistics and social semiotics, this study aims to answer the following questions in relation to the UK public health agency tweets:

> RQ1 What are the most frequent n-grams in a corpus of tweets from UK public health agencies in the first 11 months of the COVID-19 pandemic?
>
> RQ2 Which images are associated with these n-grams?
>
> RQ3 How do these frequent n-grams and images typically function in this data?

Methodology

Data collection

Public health organisations have long used Twitter for public health messages (Park et al., 2016). For this study a corpus of all tweets sent by UK public health agencies during the first 11 months of the pandemic (i.e. 1 March 2020 to 17 February 2021) was collected without prior reference to linguistic content, as mentioned in the literature review. The reason for this was to try and avoid pre-judging the results based on a definition of what words are and are not related to COVID-19. Since we are looking at the functional role of n-grams, as well as their formal structures, it is important to collect all texts from all Twitter accounts so that we can examine them, following Sinclair (2005, p. 5), "according to their communicative function in the community in which they arise".

For this purpose, data were collected, indexed and stored automatically by the web crawling application in our Multimodal Analysis Platform (MAP). MAP contains dashboards for visualising the results (O'Halloran et al., 2021). Figure 5.1 shows an example of a MAP dashboard output for the n-grams in this study.

MAP was used to collect all tweets sent from all 13 UK public health agency Twitter accounts. These included Public Health England (reorganised as the UK Public Health Security Agency (UKHSA) in 2021) and other regions around England, as well as Public Health Scotland, Public Health Wales and the Public Health Agency in Northern Ireland (see Table 5.1). The data collection included the textual and visual components of the messages in written and image formats, and comprised approximately 15,400 tweets and 564,000 tokens, as shown in Table 5.1.
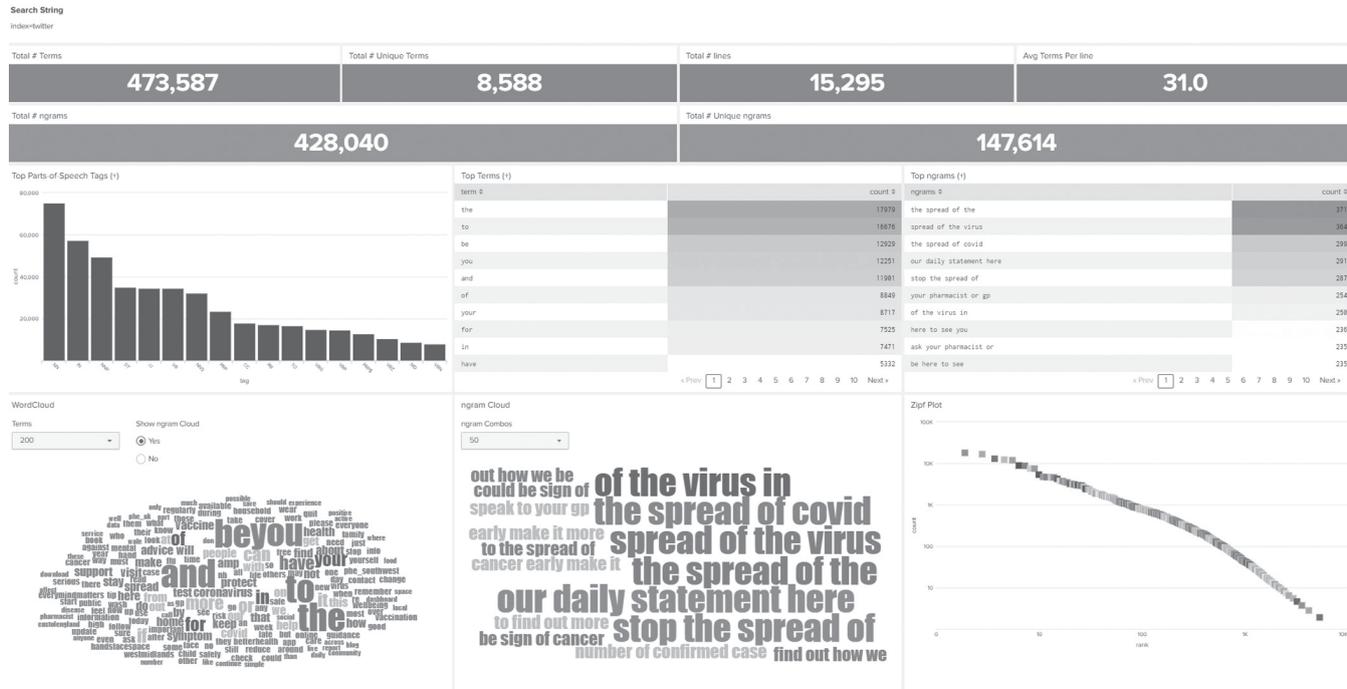
*Figure 5.1* MAP dashboard output.

Table 5.1 Corpus of UK Public Health Agency tweets 1 March 2020 and 17 February 2021

Public Health Agency	Twitter handle	Tweets	Tokens
Public Health England	PHE_uk	1,440	47,384
North of England: North East	PHE_NorthEast	1,521	59,102
North of England: North West	PHE_NorthWest	1,021	35,756
North of England: Yorkshire and the Humber	PHE_YorksHumber	726	35,080
Midlands and East of England: East Midlands	PHE_EastMids	1,201	43,872
Midlands and East of England: East of England	PHE_EoEngland	1,435	52,782
Midlands and East of England: West Midlands	PHE_WestMids	1,393	52,538
South of England: South East	PHE_SouthEast	452	15,176
South of England: South West	PHE_SouthWest	2,144	79,703
London	PHE_London	527	19,109
Public Health Scotland	P_H_S_Official	405	12,882
Public Health Wales	PublicHealthW	1,788	61,189
Public Health Agency	publichealthni	1,346	49,467
Totals		**15,399**	**564,040**

Language analysis

For linguistic analysis, we focused on the n-gram, a phraseological feature consisting of frequent recurring fixed strings of words (see "Phraseology and n-grams" in the literature review for a fuller discussion). While the MAP platform was initially used to identify the n-grams and surrounding linguistic context, MAP indexes n-grams so that all forms of a lemma are counted as one occurrence of the base form, for example *it was important* and *it is important* are both counted as occurrences of *it be important*. Such lemmatisation affects the position of this n-gram in the frequency list, and so Antconc 4.0.5 (Anthony, 2022) was therefore used to reidentify the n-grams and surrounding linguistic context so that all separate instances of n-grams containing distinct forms of each lemma were counted.

   In this study, we chose to focus on only four-word n-grams for several reasons. Firstly, three-word n-grams tend to be embedded in four-word n-grams (e.g. *the spread of/the spread of COVID*) and so will already be included in the analysis. Second, four-word n-grams are at least more likely to be syntactically whole and thus more meaningful than nominal or clausal fragments often found in three-word n-grams. Lastly, in most corpora, three- and four-word n-grams tend to be the significantly higher in frequency than longer n-grams (e.g. Jones et al., 2017; O'Keeffe et al., 2007). To ensure that the full discourse community was represented, only n-grams with a range of 13, namely they occurred in all

thirteen public health accounts, were included. HTML was deleted and the initial hashtags for individual tweets were listed in a separate column and not included in counting the number of tokens. Other hashtags were retained in the data if they played a syntactic role in a clause element, for example "it's important to remember that #COVID19 is still with us". These quantitative data were used to answer the first research question concerning the most frequent n-grams in the corpus.

There were two possible directions for matching the images and the frequent n-grams; either to move from n-gram to image, or image to n-gram. We chose to move from n-gram to image by using MAP to help us search for the images that occurred alongside the frequent n-grams. The rationale for this choice was that it was not really possible to find the frequent images because MAP finds images signalled either by appearing near a particular hashtag or tweet and images are also represented by file names. The same image could therefore have several file names and be used with a number of different n-grams. For this reason, we used MAP to give us an indication of some images that occurred with common n-grams. We then searched for images through the Twitter site "advanced search" tool (Twitter.com, n.d.). This ensured the juxtaposition of an image with a frequent n-gram.

An example of an image occurring next to two frequent n-grams *it is important that* and *the spread of* (highlighted in the tweet text) found using the Twitter site "advanced search" tool is shown in Figure 5.2. In this case, the image in Figure 5.2 is a photograph that has been annotated using facilities in Multimodal Analysis Image software[2] (O'Halloran et al., 2017) according to the framework in Table 5.2 (see "Image analysis" and "Results and Discussion" sections below).

These data were used to answer research question two concerning the images that were found associated with the most frequent n-grams.

Image analysis

To understand the text and image relations, we undertook a social semiotic analysis of the images that accompanied the most frequent n-grams using the framework for image systems displayed in Table 5.2. Halliday's (2009) metafunctional categories of ideational (experiential and logical), interpersonal and textual meaning are realized through systems organized at the rank of work, episode and figure in the images, following O'Toole (2011). The images in the UK Public Health Twitter dataset consist of various genres, including photographs, infographics and posters. Therefore, the elements specific to each genre (for example, infographic headlines, questions, commands and icons) were also included in the analysis. Multimodal Analysis Image software (O'Halloran et al., 2017), which has facilities for entering systems and annotating the images according to the generic elements and the framework in Table 5.2, was used to conduct the analysis (see Figures 5.2 to 5.5).

Figure 5.2 A sample tweet with an n-gram and accompanying image.

Table 5.2 Image systems (adapted from Kress & van Leeuwen, 2020; and O'Toole, 2011)

Metafunction	Rank	System	Description
Ideational (experiential and logical)	Work	Narrative Themes; Interplay of Episodes; Setting	What is portrayed
	Episode	Actions; Interplay of Actions	Visual happenings, actions and relations (processes, participants and circumstances)
	Figure	Character; Acts/ Stance/Gesture; Clothing; Posture	Participant characteristics
Interpersonal	Work	Light, Perspective, Angle; Distance	Visual effects and orientation
	Episode	Relative Prominence; Focus; Perspective	Happenings, actions and relations with respect to the whole image
	Figure	Gaze-Visual Address; Contrast	Direction of participant's gaze as internal to image or external to viewer; Contrasting elements
Textual	Work	Compositional Vectors; Proportion; Framing	The organisation of the parts as a whole, with visual markings of certain parts
	Episode	Relative Placement of Episode; Framing	Relative position of the happenings, actions and relations in relation to the whole image, with visual marking of certain aspects
	Figure	Relative Placement in the Episode; Arrangement; Framing	Relative position of figures and the visual marking of certain aspects of those figures

Language and image analysis

Finally, to answer the third research question concerning the text and image relations, we explored the n-grams and images in context via concordance lines, to understand the relationship between form and function. Such analysis is necessarily qualitative as it involves subjective statements about the likely intended illocutionary force (Searle, 1969) and implicature (Grice, 1975) on behalf of the message writer. This mixture of quantitative and qualitative data analysis is one widely employed in corpus analysis (e.g. Biber, 2006; Hyland, 2008; Jones & Waller, 2015;

Figure 5.3 Procedural infographic used with the n-gram *if you have symptoms*.
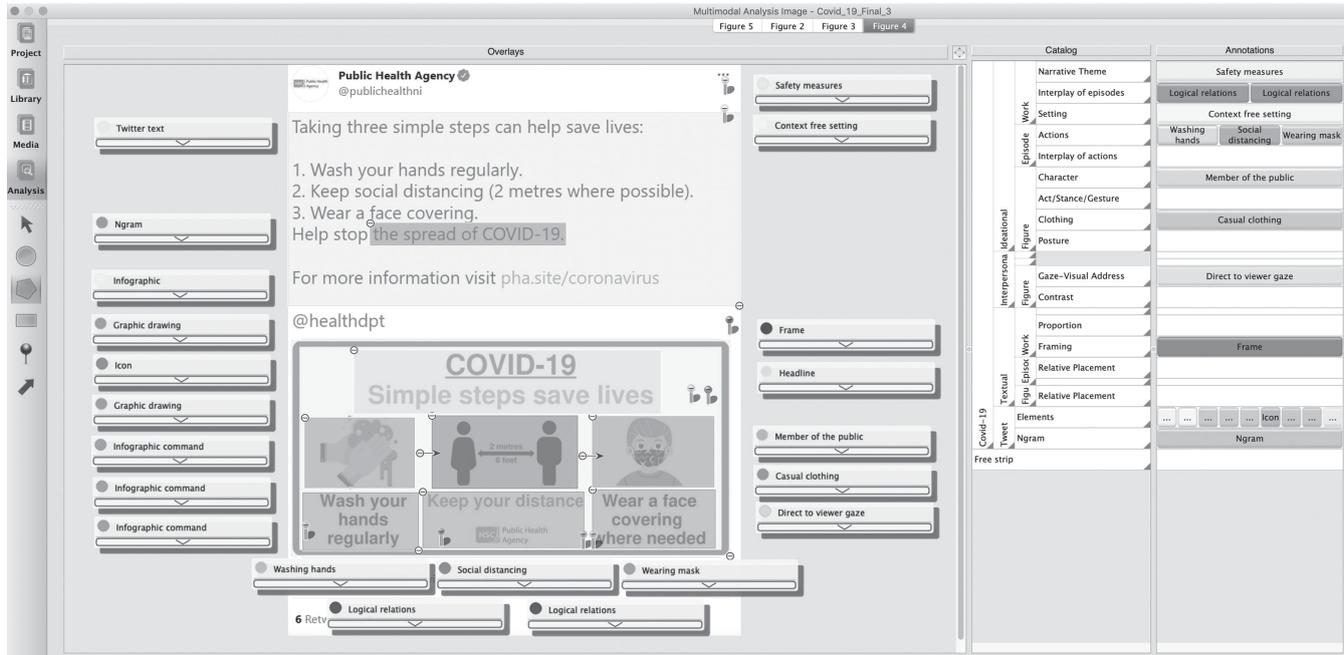
Figure 5.4 Procedural infographic used with the n-gram *the spread of Covid.*
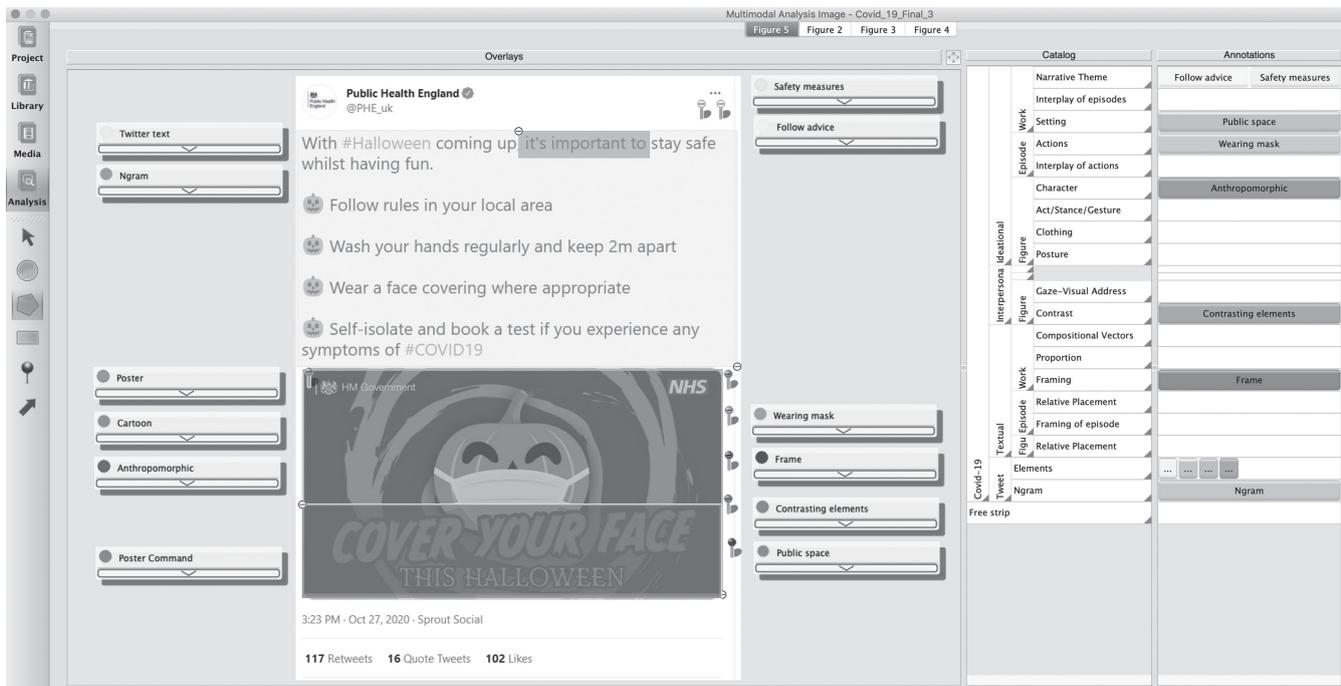
Figure 5.5 Poster used with the n-gram *It is important to*.

Oakey, 2020). In this case, the approach includes multimodal social semiotic analysis of the images, which themselves consist of embedded text and images.

Results and discussion

RQ1 What are the most frequent n-grams in a corpus of tweets from UK public health agencies in the first 11 months of the COVID-19 pandemic?

A total of 20 four-word n-grams occurred in all 13 UK public health agency Twitter accounts and are shown in Table 5.3.

It is clear from Table 5.3 that the forms of several of these n-grams overlap with each other, and so they and their co-text can be considered together rather than described separately. For example, three of these contain *the spread of* (ranked number 1, 3 and 11) and three contain *important* (ranked number 2, 8 and 16). This overlapping is one we would expect and has been observed in analyses of n-grams in other corpora. O'Keeffe, McCarthy and Carter (2007), for example, showed that common three-, four-, five- and six-word n-grams in a spoken corpus often contained the same core element such as *the end of*, *at the end of*, *at the end of the* and *at the end of the day*. In our data, the same phenomenon occurs with examples such as *the spread of*. Such common items

Table 5.3 Four-word n-grams occurring in tweets from all 13 Public Health Agencies 1 March 2020 to 17 February 2021

n-gram	Rank	Freq
the spread of covid	1	370
it's important to	2	279
stop the spread of	3	269
to find out more	4	215
find out more about	5	199
if you have symptoms	6	172
help stop the spread	7	150
it's important that	8	140
if you have any	9	122
find out how to	10	113
prevent the spread of	11	107
if you have a	12	97
children and young people	13	92
you can do to	14	91
if you have been	15	66
more important than ever	16	55
there are lots of	17	47
you can take to	17	47
steps you can take	19	37
for the first time	20	28

typically formed part of larger frames, for example *help stop the spread of COVID* was a common example of this. Other verbs and noun phrases such as *reduce*, *prevent* and *the virus* also occurred very frequently with *the spread of*. The concordance lines in corpus extract 2 show some examples of this.

Corpus extract 2. *The spread of* in UK public health agency tweets

1. With the government calling on people to stay at home to help stop **the spread of** coronavirus, we're asking people who drink alcohol to think about their drinking.
2. Wear a face covering where social distancing is difficult to maintain. Help stop **the spread of** COVID-19.
3. If you're out shopping, remember to stay 2m apart. Do your bit to stop **the spread of** the virus across the North East.
4. If you're out shopping, remember to stay 2m apart. Do your bit to stop **the spread of** the virus across the North West.
5. If you're out shopping, remember to stay 2m apart. Do your bit to stop **the spread of** the virus across Yorkshire and the Humber.
6. We must each take personal responsibility to limit **the spread of** the virus and protect our loved ones, particularly if they are vulnerable.
7. Our actions over the coming weeks will be crucial in containing **the spread of** the virus and ensuring we do not overwhelm our NHS in January.
8. Every person that is following the stay at home guidance is playing their part in slowing **the spread of** the virus and saving lives, so thank you.
9. Find out how we are responding to **the spread of** the virus in our daily statement here:
10. • Wash your hands. • Cover your face. • Make space. These are the three most effective ways we can control **the spread of** the virus.

While the frequent occurrence of n-grams involving the noun *spread* reveals the ideational aspect of these messages, it is also notable in this data that the conjunction *if* occurs often (ranked 6, 9, 12 and 15). This is somewhat surprising as we expected the nature of public health tweets to preclude the use of *if* in a subordinate clause as part of a complex sentence structure. That is, while in a general corpus of tweets Boot et al. (2019) found that subordinating conjunctions were quite common, our expectation was that n-grams in public health agency tweets would form part of simple sentences, allowing for a short, directly stated message. Nevertheless, there were a number of examples of patterns containing subordinate clauses. The most common three noun phrase collocates placed directly after the n-gram *if you have a* in Table 5.3 were *long term health condition*, *high temperature* and *new continuous cough*.

The *if you have a* n-gram containing an *if* clause fragment has been identified in other studies of n-grams in different registers, for example Biber et al. (2004, p. 381). It is classed as a discourse organiser, which reflects the relationship between prior and coming discourse, and introduces a topic or focus. In our data this n-gram was used to make advice or an instruction conditional on these other health conditions being present. Normally, the main clauses accompanying such examples contained a modal form, expressing possibility, or some kind of obligation to act. Examples of this can be seen in corpus extract 3 with the n-gram in bold and the modal underlined.

Corpus extract 3. *if you have a* in UK public health agency tweets

1. **If you have a** high temperature, a new continuous cough or loss of taste or smell, you <u>need</u> to get a coronavirus test.
2. **If you have a** new continuous cough OR a high temperature (37.8 degrees or higher), you <u>should</u> stay at home for at least 7 days from when your symptoms started.
3. **If you have a** new, continuous cough and/or a high temperature, you <u>should</u>: • stay at home • not leave your house for 7 days from when your symptoms started
4. **If you have a** persistent cough, high temperature or loss of taste or smell, you <u>may</u> have coronavirus. Stay home. Book a test. Get a test. Stop the spread.
5. You <u>can</u> get an employment and support allowance **if you have a** disability that affects how much you can work. If you're ill or self-isolating find out if you can apply.

Another example of modality in the data was n-grams containing the modal verb *can*. These were also frequent and occurred three times (ranked 14, 17 and 19). These n-grams generally comprise parts of clauses post modifying a noun such as *thing* or *steps* as in the examples in corpus extract 4.

Corpus extract 4. *you can do* in UK public health agency tweets

1. The latest analysis from PHE shows that more people from the #WestMidlands in their 20s are testing positive for #COVID19 than any other age group in the city. Make sure you're up to date on what **you can do** to help keep your friends and family safe
2. #SelfIsolation and #SocialDistancing can be hard. But there are simple things **you can do** to look after yourself.
3. Vaccination is the most important thing **you can do** to protect the entire #EastofEngland community against serious illnesses. When enough people get vaccinated, it's harder for a disease to spread to those who can't have vaccines.
4. There are lots of things **you can do** to take care of your family's mental health during the #coronavirus (#COVID19) outbreak.

5. COVID-19 hasn't gone away. There are things **you can do** when you're out and about to #KeepWalesSafe

The final noticeably frequent n-grams in the tweets are those containing the adjective *important* (ranked 2, 8 and 16). The n-gram *it's important to* has also been observed to be frequent in studies of other registers and classified as expressing a writer's "impersonal attitudinal modality stance" (Biber et al., 2004, p. 385) that "frames" some other proposition (Biber et al., 2004, p. 384). Examples can be seen in corpus extract 5.

Corpus extract 5. *it's important to* in UK public health agency tweets

1. Around 1 in 3 people have #COVID19 with no symptoms, so **it's important to** always remember #HandsFaceSpace.
2. Cornwall will move up to tier 2 from midnight on 26 December. **It's important to** be clear on what you can and cannot do.
3. We've produced a blog on why **it's important to** continue to follow #SocialDistancing rules during this holy month of #Ramadan to protect against #COVID19
4. #COVID19 can live indoors for more than 24 hours. That's why **it's important to** follow the latest guidelines and prevent spreading infection. Remember hands, face, space and ventilate.
5. **It's important to** get some exercise each day. Go out in the fresh air close to where you live in the #EastOfEngland & practice #SocialDistancing to protect against #COVID19.
6. #Coronavirus lingers in enclosed spaces so **it's important to** keep your home ventilated. Letting fresh air indoors can reduce the risk of infection by over 70%.
7. **It's important to** maintain social distancing even when you're exercising. Exercise alone or with one person from another household.
8. **It's important to** only share information from trusted sources like the NHS, public health agencies, government, universities or your local council. If in doubt, fact check the claims before you share them.
9. **It's important to** remember that #COVID19 is still with us and we need to do all we can to protect our families and friends.
10. #COVID19 can be spread through the air by droplets that are exhaled from the nose and mouth of an infected person. **It's important to** ventilate indoor spaces if someone in your home has the virus as this can help prevent transmission to others.

The functions of these n-grams will be further discussed in the answer to research question 3.

RQ2 Which images are associated with these n-grams?

As noted, when looking for images, we had to decide either to be language driven or image driven when looking for images in the public health tweets. We decided to be led by the most frequent n-grams and look at the images accompanying those n-grams. This means that some images used may be less frequent than if we had led by image frequency, perhaps by the number of likes or retweets. With this in mind, there are several observations we can make about the images we found with these common n-grams. Firstly, there were three predominant types of images. The first were photographs, as displayed in Figure 5.2 where an image of member of the public accompanies the n-gram *it is important that*. The featured participants in the photographs were either members of the public (as seen in Figure 5.2) or an authority figure such as somebody from Public Health England. The second type were procedural infographics, which contained a series of questions and commands together with icons and drawings, often with the use of bright and bold colours. Figures 5.3 and 5.4 show typical examples of the procedural infographics in the dataset. Lastly, posters were also featured in the public health messages, with cartoon like drawings, as displayed in Figure 5.5.

The images often contained embedded text elements, as seen in Figures 5.2 to 5.5. This often either added more to the Twitter text or partially paraphrased it, making small additions to the initial message. Figure 5.4 is a typical example of this, in an image accompanying *the spread of Covid*. Here we can see some small changes made from the initial text in the image. *Keep social distancing* becomes *keep your distance*, *wear a face covering* becomes *wear a face covering when needed*, and *taking three simple steps can help save lives* becomes *simple steps save lives*. Procedural infographics are themselves complex forms of visual representation, consisting of questions and commands that form relational identifying relations with their respective icons and/or drawings to reinforce the meaning. For example, the rhetorical questions *Got symptoms? OR Tested positive?* in Figure 5.3 are juxtaposed with icons that visualise this state, namely, someone coughing and a COVID-19 test kit. These two questions, which are logically connected to each other, are followed by the command = *You must self-isolate for 10 days*. Therefore, the text/icon implication sequence, organised from the top to the bottom reading path, forms a procedural text with a command if certain conditions are met. Similarly, there are icons attached to the various commands in the infographics in Figure 5.4, which realise a series of commands that are (implicitly) logically connected by "and": *Wash your hands regularly*, *Keep your distance* and *Wear a face covering where needed*. In this case, the infographic contains a headline *COVID-19, Simple steps to save lives* and the reading path is left to right. In both cases, the tweet text and the infographics co-contextualise and reinforce each other, with the possible risk of repetition.

A number of questions emerge about the choice of images in the tweets, some of which will be discussed in relation to research question three. Amongst these are why infographics were chosen so often. Perhaps the intention was to convey the message as simply as possible, in a way that it was hoped most people would understand given that the rhetorical questions and commands are accompanied by simple icons and drawings. The use of bright colours was presumably also chosen to engage people with the messages and photographs used to either create empathy (for example, in the case of Figure 5.2, which depicts a member of the public working at home) or ensure readers would listen to an authoritative voice. This raises the question as to why so much text in the tweet was chosen to accompany each image and why this text often made small changes to what was depicted visually in the infographics, which themselves consist of linguistic and visual elements. This also raises the question of redundancy where the tweet text repeats the information in the infographic, leading to possible information overload and fatigue.

RQ3 How do these frequent n-grams and images typically function in this data?

When exploring the n-grams and images together, there seem to be two common functions: text and images serving as indirect speech acts and tweets using the same strategy (stating factual information) but accompanied by more direct speech acts, in the form of instructions. An example of the first – text and images as indirect speech acts (Searle, 1969) – we might see when a statement such as *It's cold in here* serves as a request for somebody to close the window. In these tweets a common means of achieving this was to advise by simply stating information, in what Halliday (1994, pp. 363–367) calls a "mood metaphor" (for example, the speech function of command is realised by a declarative rather than an imperative). The image and text shown in Figure 5.2 is a good example of this. Here the n-gram is used in a text that appears to simply state factual information, *It is important that we all take steps to reduce the spread of Covid-19,* with an objective stance in terms of modality of the statement (*it is important*). The image is then accompanied by more factual information in the form of several declarative statements: *Anyone can spread coronavirus. Even you* and *Not everyone with coronavirus has symptoms.* The image of somebody representing a member of the public appears to be working on a laptop computer at home, given that this person is casually dressed in a softly lit room, which looks like a kitchen. The person is looking at the computer, so the viewer is positioned as an observer to the scene, which depicts the narrative theme of "working from home". In this case, the lighting functions to highlight the worker in the foreground and the neat and well-equipped kitchen in the background. The worker is prominent, given the medium camera distance, her position in

the image, and her brightly coloured clothing. The photograph depicts an ideal home scene, with orderly and quiet working conditions.

However, the illocutionary force (Searle, 1969) of the written message in this case is clearly not simply to state facts. Instead, it is to advise the reader to perhaps stay at home, if possible, get tested, and at least wash their hands, wear a face mask and maintain social distancing. This observation about the function of the n-gram is at odds with Biber's assigned function of *it is important* as expressing a writer's "impersonal attitudinal modality stance" (Biber et al., 2004, p. 385). It seems from our analysis of the n-gram, when juxtaposed with an image in a tweet, that the impersonal nature of the n-gram is only a surface feature and that its actual function is to give advice. However, there also appears to be a mismatch between the text, image and illocutionary force here. In short, although we can suggest the function here is "advising", it is not really clear what the Twitter text and the embedded text in the photograph are actually advising the reader to do. The image is of someone working at home, but does this then mean we can take steps to reduce the spread of COVID-19 by staying at home? What then, are we to make of the text *Anyone can spread coronavirus. Even you* and *Not everyone with coronavirus has symptoms* in the same space as the image? Here, the implied advice is perhaps that we should get tested regularly to avoid spreading the virus. This example illustrates the difficulty of constructing public health advice in this way – the implicature can clearly be interpreted in several ways and, we would suggest, is likely to be given different interpretations by different readers. Therefore, the text and images do not co-contextualise each other to reinforce a single message. Rather, there is semiotic dissonance, with the result that the message may be interpreted in different ways by members of the public. Moreover, the image is an idealised version of what it means to work at home; clearly not everyone enjoys an orderly home environment as depicted in the photograph.

The second common function was for tweets to use the same strategy (stating factual information) but accompanied by more direct speech acts, in the form of instructions, as seen in Figures 5.3 and 5.4. Figure 5.5 is another example of this form of tweet text, where explicit instructions are provided before Halloween: *Follow the rules in your local area*; *Wash your hands regularly and keep 2m apart*; *Wear a face covering where appropriate*; *and self isolate and book a test if you experience any symptoms of #COVID-19*. The accompanying image is a poster with the command to cover faces during Halloween, as displayed in Figure 5.5.

In this example, at first glance, the illocutionary force of the tweet seems clearer. We are told what to do and the imperative form makes it clear that these are instructions and not suggestions. However, despite this, there is still some ambiguity here. In the text, the instruction *wear a face covering* is accompanied by *where appropriate*. The implicature here is that the reader is presumed to know when and indeed where this might be. A similar issue is with *follow rules in your local area*. The implicature

is that the reader knows what these rules are and how they may differ from other rules in place. Finally, the poster seems to contradict the instruction in the text. Here we are simply told to cover our face through the command *COVER YOUR FACE THIS HALLOWEEN*, which is displayed underneath a cartoon drawing of an anthropomorphised pumpkin with a face mask. The implicature is different to that in the text, where the use of *where appropriate* suggests we do not always need to cover our face and that we are aware of instances when it is not important. In this case, the Twitter text and poster function to co-contextualise each other, but the circumstantial conditions for the wearing of face masks remain somewhat ambiguous.

Conclusion

The research reported in this chapter has revealed that in UK public health agency tweets, linguistic and visual elements are, predictably, interconnected through the common themes of preventing the spread of COVID-19 through safety measures (i.e. working from home, getting tested, keeping socially distanced, and washing hands). However, we have observed that the tweet texts and embedded linguistic text are not always perfectly aligned with the images, especially in cases where information is provided in the form of factual statements that are only vaguely related to the image. In this case, the most frequent n-grams form core aspects of the messages, but these often function indirectly, and their illocutionary force can be interpreted in various ways, unlike the procedure graphics where the conditions and logical implications are clearly articulated. However, procedure infographics are complex multimodal texts and need to be directly linked to the accompanying tweet text, to be more effective. Additionally, there is a clear risk of redundancy and information overload if the tweet text merely repeats what is depicted graphically, and a risk of misinterpretation if the text is repeated with minor changes within the graphics. While public health tweets of this nature need to communicate their message quickly and with minimal ambiguity, overall, the examples identified in this study suggest that the manner in which the most common n-grams and accompanying images are used reveals that there is a great deal of ambiguity present.

This stage of the project has described the language and images used in public health messaging and the nature of the text/image relations. As seen in this study, the text and images can function to co-contextualise each other, in this case using the tweet text and images such as photographs, procedural infographics, and posters. Key to such an approach is to analyse the message through a multimodal lens, analysing common forms and functions of language and how these interact with images to carry ideational, interpersonal and textual messages. Although our focus has been limited and reasonably narrow here, the language/image analysis methodology developed in this project can be applied to all sources of

information about COVID-19 (mainstream news, social media, government reports and so forth). Insights into how phraseology and imagery in public health information are understood and acted upon will lead to increased effectiveness of the linguistic and visual choices made in ensuing messages in future pandemics.

Acknowledgements

Notes

1 http://35.246.69.64:8000/en-GB/account/login?return_to=%2Fen-GB%2Fapp%2FMultimodal%2Fwelcome
2 http://multimodal-analysis.com/products/multimodal-analysis-image/software/index.html

References

Anthony, L. (2022). AntConc (Version 4.0.5) [Computer Software]. Tokyo, Japan: Waseda University. Available from www.laurenceanthony.net/software

Banerjee, D., & Meena, K. S. (2021). COVID-19 as an "Infodemic" in public health: Critical role of the social media. *Frontiers in Public Health*, *9*(231). https://doi.org/10.3389/fpubh.2021.610623

Bateman, J. (2014). *Text and image: A critical introduction to the visual/verbal divide*. Routledge.

Biber, D. (2006). *University language: A corpus-based study of spoken and written registers*. John Benjamins.

Biber, D., Conrad, S., & Cortes, V. (2004). If you look at ...: Lexical bundles in university teaching and textbooks. *Applied Linguistics*, *25*(3), 371–405.

Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. Longman.

Boot, A. B., Tjong Kim Sang, E., Dijkstra, K., & Zwaan, R. A. (2019). How character limit affects language usage in tweets. *Palgrave Communications*, *5*(1), 76. https://doi.org/10.1057/s41599-019-0280-3

British National Corpus, version 2 (BNC World). 2001. Distributed by Oxford University Computing Services on behalf of the BNC Consortium. www.natc orp.ox.ac.uk/

Carter, R. (1998). *Vocabulary: Applied linguistic perspectives* (2nd ed.). Routledge.

Cortes, V. (2004). Lexical bundles in published and student writing in history and biology. *English for Specific Purposes*, *23*(4), 397–423.

Davies, M. (2021). The coronavirus corpus: Design, construction, and use. *International Journal of Corpus Linguistics*, *26*(4), 583–598. https://doi.org/ 10.1075/ijcl.21044.dav

Ellis, N. C. (2008). Phraseology: The periphery and the heart of language. In F. Meunier & S. Granger (Eds.), *Phraseology in foreign language learning and teaching* (pp. 1–13). John Benjamins.

Firth, J. R. (1957). A synopsis of linguistic theory 1930–-1955. In J. R. Firth (Ed.), *Studies in linguistic analysis* (pp. 1–32). Basil Blackwell.

Glaser, R. (1998). The stylistic potential of phraseological units in the light of genre analysis. In A. P. Cowie (Ed.), *Phraseology: Theory, analysis, and application*. (pp. 125–143). Clarendon Press.

Greszczuk, C. (2020) Making messages work. Health Foundation, 21st April 2020. Accessed on 1 May 2020 from https://www.health.org.uk/ what-we-do/a-healthier-uk-population/thinking-differently-about-health/ making-messages-work

Grice, H. P. (1975). Logic and conversation. In P. Cole & J. Morgan (Eds.), *Syntax and semantics* (pp. 41–58). Academic Press.

Halliday, M. A. K. (1978). *Language as social semiotic: The social interpretation of language and meaning*. Edward Arnold.

Halliday, M. A. K. (1994). *An introduction to functional grammar* (2nd ed.). Edward Arnold.

Halliday, M. A. K. (2009). *Collected works of M.A.K. Halliday* (10 Volumes). Continuum.

Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). *Halliday's introduction to functional grammar* (4th ed., revised by C. M. I. M. Matthiessen ed.). Routledge.

Howarth, P. A. (1998). Phraseology and second language proficiency. *Applied Linguistics*, *19*(1), 24–44.

Hunston, S. E. (2020). Changing language in unprecedented times. *University of Birmingham, Department of English News*, 8th April 2020. Accessed on 23rd April 2020 from https://www.birmingham.ac.uk/schools/edacs/departments/ englishlanguage/news/2020/changing-language.aspx

Hyland, K. (2008). As can be seen: Lexical bundles and disciplinary variation. *English for specific purposes*, *27*, 4–21.

Jones, C., Byrne, S., & Halenko, N. (2017). *Successful spoken English: Findings from learner corpora*. Routledge.

Jones, C., & Waller, D. (2015). *Corpus linguistics for grammar: A guide for research*. Routledge.

Kress, G., & van Leeuwen, T. (2020). *Reading images: The grammar of visual design* (3rd ed.). Routledge.

Mahlberg, M., & Brookes, G. (2021). Language and Covid-19: Corpus linguistics and the social reality of the pandemic. *International Journal of Corpus Linguistics*, *26*(4), 441–443. https://doi.org/10.1075/ijcl.00043.mah

Moon, R. (1998). *Fixed expressions and idioms in English: A corpus based approach*. Clarendon Press.

Oakey, D. J. (2020). Phrases in EAP academic writing pedagogy: Illuminating Halliday's influence on research and practice. *Journal of English for Academic Purposes*, *43*, 1–15.

Oakey, D. J. (2022). What can a corpus tell us about lexis? In A. O'Keefe & M. McCarthy (Eds.), *The Routledge handbook of corpus linguistics* (2nd ed.,) (pp. 185–203). Routledge.

O'Halloran, K. L., Pal, G., & Jin, M. H. (2021). Multimodal approach to analysing big social and news media data. *Discourse, Context and Media, 40*. https://doi.org/10.1016/j.dcm.2021.100467

O'Halloran, K. L., Tan, S., & E, M. K. L. (2017). Multimodal analysis for critical thinking. *Learning, Media and Technology*, *42*(2), 147–170. https://doi.org/:10.1080/17439884.2016.1101003

O'Halloran, K. L., Tan, S., & Smith, B. (2016). Multimodal approaches to English for academic purposes. In K. Hyland & P. Shaw (Eds.), *The Routledge handbook of English for academic purposes* (pp. 256–269). London: Routledge.

O'Halloran, K. L., Tan, S., & Wignell, P. (2019). SFL and multimodal discourse analysis. In G. Thompson, W. L. Bowcher, L. Fontaine, & D. Schönthal (Eds.), *The Cambridge handbook of systemic functional linguistics* (pp. 433–461). Cambridge University Press.

O'Keefe, A., McCarthy, M., & Carter, R. (2007). *From corpus to classroom - Language use and language teaching*. Cambridge University Press.

Oliver, D. (2020). Covid-19 highlights the need for effective government communications. *British Medical Journal* 369:m1863. https://doi.org/10.1136/bmj.m1863

O'Toole, M. (2011). *The language of displayed art* (2nd ed.). Routledge.

Oxford English Dictionary. (2020). Corpus analysis of the language of Covid-19. OED Blog, 14 April 2020. Accessed on 23rd April 2020 from https://public.oed.com/blog/corpus-analysis-of-the-language-of-covid-19/

Park, H., Reber, B. H., & Chon, M. G. (2016). Tweeting as health communication: Health organizations' use of twitter for health promotion and public engagement. *Journal of Health Communication*, *21*(2), 188–198. https://doi.org/10.1080/10810730.2015.1058435

Pawley, A., & Syder, F. H. (1983). Two puzzles for linguistic theory: Nativelike selection and nativelike fluency. In J. C. Richards & R. W. Schmidt (Eds.), *Language and communication* (pp. 191–226). Longman.

Schmitt, N., Grandage, S., & Adolphs, S. (2004). Are corpus-derived recurrent clusters psycholinguistically valid? In N. Schmitt (Ed.), *Formulaic sequences* (pp. 127–151). John Benjamins.

Schuessler, J. (2020) 'Oxford's 2020 Word of the Year? It's too Hard to Isolate', New York Times, 22nd November 2020. Accessed on 17th March 2022 from https://www.nytimes.com/2020/11/22/arts/oxford-word-of-the-year-coronavirus.html

Searle, J. (1969). *Speech acts*. Cambridge University Press.

Sinclair, J. M. (1991). *Corpus, concordance, collocation*. Oxford University Press.

Sinclair, J. M. (2005). Corpus and text – Basic principles. In M. Wynne (Ed.), *Developing linguistic corpora: A guide to good practice* (pp. 1–16). Oxbow Books.

Tan, S., O'Halloran, K. L., & Wignell, P. (2020). Multimodality. In A. D. Fina & A. Georgakopoulou (Eds.), *Handbook of discourse studies* (pp. 263–281). Cambridge University Press.

Twitter.com. (n.d.). *Twitter Advanced Search*. https://twitter.com/search-advanced?lang=en-GB

van Leeuwen, T. (2005). *Introducing social semiotics*. Routledge.

Wood, D. (2002). Formulaic language in acquisition and production: Implications for teaching. *TESL Canada Journal*, *20*(1), 1–15.

World Health Organisation (WHO) (2020). 'Naming the Coronavirus Disease (COVID-19) and the Virus that Causes it'. Accessed on 17th March 2022 from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it

Wray, A. (2002). *Formulaic language and the lexicon*. Cambridge University Press.

Part III

Communicative functions/ strategies of COVID-19 discourses

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6 Australian universities engaging international students during the COVID-19 pandemic

A study of multimodal public communications with students

Zuocheng Zhang, Toni Dobinson and Wei Wang

Introduction

The outbreak of the COVID-19 pandemic in early 2020 impacted Australia, and Australian universities in particular. Each of the states in Australia was affected differently due to state government approaches and measures in place in the state. Although the number of infections was relatively small in the first wave of the virus in world terms, the pandemic was still disruptive educationally. Teaching moved to online delivery at short notice while a large number of international students became stranded overseas. With these developments, the importance of international students to Australian universities was made very apparent, not least at the monetary level. Universities stepped up their engagement (Kahu, 2013) during the uncertainties of the COVID-19 disruptions to showcase their understandings of, and responsiveness to, international students' needs. This was set against a backdrop of literature already calling for a re-humanising of university academics and their intersubjective experiences with students (Gilmore & Warren, 2007).

University public communication channels are important vehicles for connecting with international students. Amidst the ongoing COVID-19 pandemic, these channels became unprecedentedly crucial in higher education settings, so it is useful to consider how they have worked as platforms for engaging international students.

In this chapter, we conceptualise student engagement through public communications as situated discursive practices, with a view to identifying the roles and responsibilities universities construct for themselves, and for international students, through their public communication channels. We selected three Australian universities of different locations and standing as our data source, including one metropolitan university in Western Australia (Curtin University) and two in New South Wales, namely the prestigious University of Sydney (USyd) in metropolitan Sydney and the

University of New England (UNE), located in regional Australia. Our aim was to answer the following two research questions:

1. What types of engagement in university public communications with international students were prioritised during the period of COVID-19 in the three Australian universities?
2. How can a situated discursive practice perspective on university public communications help us understand more about the nexus of roles and responsibilities involved in student engagement?

Conceptualising engagement as situated discursive practices

Engagement as a concept has been variably interpreted in educational contexts, which, accordingly, shape conceptualisations of engagement. The most common conceptualisation has been in the schooling context. Here engagement is defined by some as "student participation in educationally effective practices, both inside and outside the classroom, which leads to a range of potentially measurable outcomes" (Hyde et al., 2017, p. 447). In the schooling context three dimensions of engagement were identified by Hyde (2017):

- Behavioural engagement which involves students in on-task participation in regular educational activities
- Emotional engagement which refers to students' sense of belonging to the school and of being supported at school
- Cognitive engagement which involves students reviewing and reflecting on their learning

Engagement is also recognised in higher education settings as an essential contributor to student experience. It is often conceptualised slightly differently in this context, however. One measurement of engagement in higher education at universities is the Student Experience Survey (SES), funded by the Australian Government Department of Education and Training. Learner (student) engagement is viewed in this survey as one of six aspects of students' experience of higher education. It measures students' preparedness for academic study, sense of belonging to their institution and participation in their study as individuals or with peers (SES, 2020). This view of engagement is specific to this survey, however, taking a fairly narrow university reductionist view of engagement to be able to measure and evaluate student engagement, most likely for marketing purposes.

In this study, while we accept Hyde's categorisation of student engagement into Behavioural, Emotional and Cognitive, we also take the view that engagement is holistic. That is, the student, the institution and the broader sociocultural environment are in constant interplay to shape engagement. Students are not acting alone in their Behavioural, Cognitive

or Emotional engagement. The educator, the learning environment and the learner attributes constitute the conditions or antecedents for student action, which leads to various consequences (Kahu, 2013; Kettle, 2021). Student engagement in education is thus a socio-ecologically complex phenomenon (Lawson & Lawson, 2013) and any study of engagement needs to consider both the student and the institution, for example, international students and their university, to achieve a nuanced understanding of engagement practices.

The conceptualisation of engagement as a two-way, co-constructed event can be investigated by examining university public communications to students. Universities have employed public communication tools to achieve varied purposes, in particular internet-based communications for educational, social and marketing goals and objectives. Often cited examples include university websites (e.g. O'Halloran et al., 2015; Zhang et al., 2020), prospectus (Askehave, 2007), university "About us" texts (Giannoni, 2018) and university presidents' messages (Teo & Ren, 2019). The COVID-19 pandemic has undoubtedly been a crisis for governments, institutions and individuals, imposing the need for universities to react and respond to all students and to enact new initiatives. One of these is communicating new ways of teaching and learning at a time of precarity. Naturally occurring interactions such as public communications in universities are therefore situated discursive practices. When we analyse these practices from the engagement perspective, we are guided to describe, in a more explicit way, the roles and responsibilities of both the university and the student.

Communicative acts (Clark, 1996; Reich, 2011), as an extension of speech acts (Austin, 1962; Searle, 1969), are also useful for the description of the university's construction of its roles. Communicative acts provide tools for analysing instances of communication in terms of participant roles, actions and conditions associated with the enacting and interpreting of participant roles and actions. These acts are concerned with the more "social" aspects of people's communicative exchanges than Austin's original conception of speech acts because they "explain how the agency of addressees is implied by the performance of many communicative acts" (Reich, 2011, p. 1349). That means the way in which a speaker/writer uses an overtly intentional sign/signal to solicit cooperation from the audience is highlighted. These communicative acts can also be used in the analysis of co-acts of the audience in response to the speaker/writer's communicative behaviours that involve use of gestures, facial expressions and other multimodal semiotic systems. These signs/signals denote something about the world (representational meaning) and position the audience in the interaction with another person or thing (interactive meaning), creating a structured semiotic whole (compositional meaning). When dealing with multimodal texts we need to explore how all of these meanings are realised in the various modes. These modes can include words, pictures, sounds, colours, images, gestures, gaze,

camera position, perspective, lighting effects and posture. These come together to create a multimodal experience (Kress & van Leeuwen, 2006; O'Halloran, 2004). For example, images shot at different camera angles can engage or disengage viewers in socioculturally recognisable ways (Kress & van Leeuwen, 2006), constructing roles for the producer and the audience. The process of international student engagement through public communications involves the university communicating messages through certain repertoires of communicative acts. The students, in turn, are solicited to co-act or engage with these communicative acts either behaviourally (e.g. doing routine/expected academic and extracurricular duties), emotionally (e.g. developing a sense of community, belonging) or cognitively (e.g. reviewing/reflecting on events, practices, goings on).

This conceptualisation of engagement as situated discursive practices allows us to examine the roles the university constructs for itself and the dimensions of engagement that the university provokes in its students, specifically its international students (the focus of this study). As will be shown in the Method section (see Table 6.1), we adapt Hyde's (2017) categories of student engagement and add the communicative acts displayed by the three selected Australian universities to construct a framework for providing a more holistic view of engagement practices in university public communications to international students.

Table 6.1 Taxonomy of communicative acts and dimensions of student engagement

University communicative acts	Requiring: University making commands on international students or giving them instructions
	Advising: University putting itself in the role of consulting international students
	Supporting: University providing moral support (e.g. showing empathy to international students) and material help (e.g. offering hardship scholarship)
	Informing: University producing information or imparting government information to international students
Students' engagement with the communicative acts	Behavioural: Students complying with the standards set down by the communication and adjusting their behaviour in accordance with what is communicated to them
	Cognitive: Students as thinking beings considering, critiquing, evaluating and questioning the information in the communications
	Emotional: Students having affective reactions to the communications, for example, showing a sense of belonging
	Receiving: Students as just receptors of the information without being expected to undertake other active engagement, i.e. behaviourally, cognitively or emotionally

Method

Research design

The study reported in this chapter uses a multiple-case study approach. Case study is often thought of as a method but, in fact, it is an approach that focuses on an object of inquiry in a natural context that is unique and bounded (Casanave, 2015). A case study investigates one group or institution in depth (Simons, 2009) with the goal of understanding a phenomenon exemplified by the institution (Swanborn, 2010). This chapter describes a multiple-case study (Stake, 2006) in which three institutions were investigated with regard to their engagement of international students through their public communications with these students. The study allowed us to consider different university circumstances to identify possible variations across universities and different discursive practices.

Data collection and analysis

The data, including COVID-19 information webpages, international student webpages, news/events webpages, and/or vice chancellor's video and text messages, and the ways in which they were obtained, were different for each university under investigation. However, what the datasets have in common is that they are all multimodal communications that took place between the universities and their international students enrolled at the start of the pandemic and were designed to support students in their day-to-day dealings with the new learning and teaching situation brought about by COVID-19 disruptions. These texts were chosen because they were dynamic and changing during the period under study and because students had more reason to attend to these texts and engage with them regularly, as a result. They provided support for students and became "go to" online documents for guidance at a time when there was chaos in many educational situations.

The conceptualisation of engagement as situated discursive practices described earlier, and a preliminary analysis of a sample of data, led to a taxonomy of both the communicative acts exhibited by the three universities and the dimensions of students' engagement. The taxonomy is summarised in Table 6.1.

When analysing the linguistic texts, we categorised each sentence (signalled by a full stop or semi-colon) as a meaning unit and coded it as one of the communicative acts of Informing, Advising, Requiring or Supporting by the university, and one of the Behavioural, Cognitive, Emotional or Receiving dimensions of the students' engagement with the university communications. The results of the coding for each of the three universities was tallied and reported as separate case studies in the Findings section.

The coding process was not straightforward as meanings are notoriously context-bound. This is particularly true of the analysis of the Informing communicative act and the distinction between Cognitive and Behavioural engagement. Advising and Requiring are also blurred concepts that can only be interpreted when we know who is doing the advising and what power they hold over the advisee. We thus used both the context to help determine meaning, and specific wordings to assist in determining what communicative act was being performed.

For example, we coded "Arrangements will vary from course to course and may depend on whether you are a new student or continuing student" (USyd, 2020) as University Informing: Student Receiving because the sentence is merely an announcement. Similarly, the next example "I am writing today [to] update you on the work we are doing to help you commence your studies with us if you are unable to join us here on campus for the start of semester 1" (USyd, 2020) is explicitly targeting international students (see the word "you") who are participating in their otherwise routine academic activities. The word "reconsider" in the example "For any private trips planned to China, we strongly urge you to reconsider and check the up to date advice from DFAT here (www.dfat.gov.au/)" (UNE, 2020) indicates cognitive processes on the part of international students. While the word "check" may sound like Behavioural engagement, in the co-text of "reconsider" it acquires a sense of cognitive undertaking and is thus not coded as Behavioural engagement. In the next example, "To protect the health of the Curtin community, staff, students and visitors are requested to: maintain good personal hygiene, including regular handwashing" (Curtin University, 2020), the university requirement is disguised in the wording "requested". The wording "Special arrangements" in the example "Special arrangements are currently in place for the UNE Regional Study Centres at Coonabarabran, Gunnedah, Moree, Narrabri, Inverell and Tenterfield" (UNE, 2020) indicates the university's extra effort to support and provide the students with a sense of affinity through the regional study centres, hence the coding of the university's communicative act as Supporting and the students' engagement as Emotional.

We analysed the videos and/or images using concepts in multimodal discourse analysis (e.g. Kress & van Leeuwen, 2006). For the images in the three case studies described in this chapter, including photographs and screenshots from videos, six aspects were considered. These included (1) the setting of the photograph or video; (2) the angle of the shot (high, low, eye-level) to decipher viewer power; (3) the gaze (demand or offer gaze) to indicate the level of engagement (demand as high level of engagement while offer as no or low-level engagement); (4) short-, medium-, or long- shot to indicate social distance/affinity; (5) frontal versus oblique angles to indicate viewer involvement; and (6) the actor's gestures, attire and environment used to convey mood. These analyses were linked with the analyses of the linguistic texts to identify the interplay between the

different modalities and describe the effect of the interplay in constructing communicative acts and dimensions of engagement.

Inter-rater reliability procedures

The first author developed a heuristic coding scheme based on an analysis of his university dataset, including communicative acts and dimensions of engagement. The criteria for this coding scheme were then shared via email with the co-authors who applied the coding scheme to their own university dataset. All the coding was discussed at several Zoom meetings and the coding scheme was tweaked where necessary. The refined coding scheme was then applied by each author to review their own university dataset. Where uncertainties or discrepancies from the original coding arose, they were discussed by the three authors together before each author tallied their own results for reporting in each respective case study.

Findings of the three case studies

The case of the University of New England (UNE)

Background and data sources

UNE is a regional university in New South Wales, Australia, with a student population of over 22,000, among which a small proportion are international students (UNE, 2021). UNE has experienced a less severe COVID-19 disruption than many of its Australian counterparts, at least regarding the mode of teaching, because online teaching has for many years been the predominant mode of course delivery at this university. The university responded to the crisis swiftly, including creating a COVID-19 information webpage as early as 29 January 2020, providing a targeted webpage for international students with relevant support information, and reporting international students' life experiences in news and events reports. For the study described here, three sources of public communications were collected as data: One news report featuring UNE and the International Muslim Students Association (IMSA) helping Muslim students and international students; one Supporting Information for International Students document, which included a list of student questions and university responses to the questions; and four messages selected from the university's COVID-19 information webpage from 29 January 2020 to 3 September 2020.

The COVID-19 information webpage was designated for providing advice to the UNE community, information on the pandemic, and university plans and actions, all of which were updated regularly (hence this information will be referred to hereafter as updates). The information on this designated webpage consistently took the form of a letter featuring salutation, information and signature by the vice chancellor (VC) or

chief operating officer (COO). The updates may be roughly divided into three groups reflecting the stages of the university's management of the pandemic, namely, the initial stage (29 January to 8 April 2020, during which there were nearly daily or weekly updates), a relaxation stage (10 April to 11 June 2020, during which weekly updates were made but the same message was reproduced with a change in dates and the wording "Current as of … . (the date of the last update)"), and a transition to new normal/return to campus stage (12 June to 3 September 2020, when data collection was terminated). The earlier updates were signed by the COO until the middle of March 2020, when they began to be signed by the VC. The wordings were also different. For example, the updates signed by the COO bear the wording "This message has been provided by Professor … . | Chief Operating Officer, UNE" while those signed by the VC have the wording "Authorised by Professor … ., Vice Chancellor and CEO". The updates signed by the VC also tended to be longer as there was more information and detail in these updates.

Findings from the linguistic texts

The findings from the analysis of the communicative acts and dimensions of engagement in the three types of linguistic texts are summarised in Table 6.2. The largest, and second largest, counts of communicative acts are Informing (88) and Supporting (67), respectively accounting for 39% and 30% of the total of 223 counts of communicative acts. Requiring (40) and Advising (28) communicative acts take up a much smaller proportion of the total counts, at 18% and 13% respectively. The linguistic texts were therefore mainly used to inform international students and provide them with support.

The number of communicative acts seems to change over time. The number is notably higher at the critical stages of the pandemic (e.g. 33 and 35 instances on 17 March 2020 and 8 April 2020 respectively) than at the initial earlier stages (e.g. 24 and 11 instances on 29 January 2020 and 16 March 2020 respectively) or the later/transition stages (e.g. 27 instances on 3 September 2020) of the pandemic. There might have been a variety of reasons for the change observed in the number of communicative acts, but the status of the pandemic at any specific point in time may be an important reason, that is, there was more information to disseminate and more support to provide during the critical stage of the pandemic than in the other less critical periods.

Regarding engagement, Receiving comes first with the largest count (80), followed by Behavioural engagement (77), Emotional engagement (58) and Cognitive engagement (8). The Informing: Receiving combination is the most prevalent, suggesting that this dimension of the nexus of university-student interactions was accentuated. Behavioural engagement tended to feature together with Requiring and Advising communicative acts, while Emotional engagement kept company with Supporting

Table 6.2 UNE's communicative acts and dimensions of engagement in the linguistic texts

University's communicative acts	International students' engagement	COVID-19 updates in letter format						News report	Q&A document	Subtotal	Total
		29 Jan	16 Mar	17 Mar	8 Apr	3 Sep	Subtotal	5 May	Trimester 1		
Requiring	Behavioural	10	4	7	6	5	32		6	38	40
	Emotional										
	Cognitive	1	1				2			2	
Advising	Behavioural			2	3	2	7	1	15	23	28
	Emotional								1	1	
	Cognitive				1	1	2		2	4	
Informing	Behavioural							2	2	4	88
	Emotional								2	2	
	Cognitive		1				1		1	2	
	Receiving	10	3	12	13	11	49	14	17	80	
Supporting	Behavioural	1		4	1	2	8		4	12	67
	Emotional	2	2	8	11	6	29	11	15	55	
	Cognitive										
Total		24	11	33	35	27	130	28	65	223	223

communicative acts. Cognitive engagement is minimal in all three types of texts, which imparts a sense that this dimension of engagement was not prioritised in the university public communications.

Findings from the images

Of the three types of texts analysed for UNE, the news report is the only one accompanied by an image, which was a photograph of the IMSA president inserted into the upper half of the webpage featuring the news report. It was published on 5 May 2020 in the news and events section of the UNE webpage, reporting on the IMSA supplying free Iftar to Muslim and other international students during Ramadan with the assistance of UNE's International Office and the local community. The image is reproduced as Figure 6.1.

This image engages international students on all three dimensions: Behaviourally, emotionally and cognitively. The demand gaze, tempered with the smiling face and open mouth, creates a sense of affinity (Kress & van Leeuwen, 2006). Behaviourally, the empty delivery box, shown to be in proximity to the advertising slogan for making one's own burger in the background of the image in the broader context of the news report about preparing free meals for international students, may index meals taken and to be prepared, thus creating a space for behavioural participation. The salient contrast, as indicated in the represented agent's Middle Eastern appearance (moustache) and Aussie outfit, and between the traditional Arabic artefact (hanging carpets) and the rather contemporary image of a hamburger, invites Cognitive engagement, prompting questions such as *Who is this man? What is he doing or wanting me to*

Figure 6.1 President of IMSA gazing and smiling at viewer.

Source: www.une.edu.au/connect/news/2020/05/supporting-students-in-the-spirit-of-ramadan).

do? Where is this man located? What does he have to do with the burgers and the empty box behind him?

Emotional engagement is immediate in the image, which matches the title of the news report "Supporting students in the spirit of Ramadan". The linguistic text and the image therefore mutually enhance each other. As noted earlier, Cognitive engagement does not feature prominently in the linguistic text of the news report. In the visual text, however, Cognitive engagement appears to stand out. The several salient pairs of contrast displayed in the image in Figure 6.1 may serve to invite viewers to think about food in light of the remarks by the President of IMSA in the news report "[Ramadan is] an opportunity to appreciate the joy food brings us, to remember the less fortunate who live without food security throughout the year". As such, the visual text complements the linguistic text by constructing a Cognitive dimension of engagement in the multi-modal news report.

The case of Curtin University

Background and data sources

Of the 57,784 students enrolled at Curtin University in 2019, 25% were international students (Curtin University, n.d.). Public communication with these students during the COVID-19 pandemic disruptions took many forms, but these two types of texts were found to be the most interesting: (1) The COVID-19 written online updates to students from the VC, which appeared at varied intervals during the disruptions to university classes, and (2) short videos of the VC speaking to students during the same period. These communications were not specifically for international students. All students were treated as one entity, except where one video was aimed at international students in Curtin's offshore campuses.

Findings from the linguistic texts

Findings from the analysis of the selected linguistic texts over the COVID-19 period are summarised in Table 6.3.

The most common university role in the communication types examined between February and April 2020 was Informing staff and students about what the COVID-19 situation meant for their university course (45%). This included communicative acts that just informed students of changes (40%) and those with which students were expected to engage behaviourally (3%), cognitively (1%) and emotionally (1%). The second most common role that the university took on with all students was a Supporting role (41%), with the VC's written updates and supportive videos engaging students emotionally (20%), behaviourally (20%) and cognitively (1%). Like in the UNE dataset, Cognitive engagement was

Table 6.3 Curtin University's communicative acts and student engagement

University's communicative acts	International students' engagement	COVID-19 updates in letter format										Video updates		Total
		4 Feb	13 Feb	21 Feb	13 Mar	16 Mar	26 Mar	1 Apr	3 Apr	9 Apr	Subtotal	20 Mar	27 Mar	
Requiring	Behavioural	2	2		5	2					11			11
	Emotional										0			
	Cognitive										0			
Advising	Behavioural	1	2		6	1	4	4	1	1	20	3		26
	Emotional										0			
	Cognitive				1	1			1		3			
Informing	Behavioural		1				1	3	1	1	7			113
	Emotional		1	1							2			
	Cognitive		1		1						2	1		
	Receiving	8	3	5	28	15	13	10	1	13	96	5		
Supporting	Behavioural		10	1	6	2	4	12	7	4	46	3	2	101
	Emotional		2	5	5	1	5	4	6	3	31	7	10	
	Cognitive				1	1					2			
Total		11	22	12	52	23	28	33	17	22	220	19	12	251

much lower than either Behavioural or Emotional engagement in the Curtin dataset. The third most common university role was Advising (10%), with students advised to engage behaviourally (9%) or cognitively (1%), although this role was sometimes difficult to distinguish from Requiring because of the power relations between the university and the students. In other words, the VC's advice was sometimes a thinly veiled requirement, and this was determined through inter-rater discussion. Requiring was only 4% and this was all Behavioural.

The early phase of restrictions (February 2020) was mostly focused on the university Informing students (44%) and students either Receiving this information (36%) or engaging behaviourally (2%), cognitively (2%) or emotionally (4%) with it. This was followed by the university providing a Supporting role (40%) and designing updates to engage students emotionally (16%) and behaviourally (24%).

In March 2020, Curtin University placed emphasis on Informing students (57%), with some updates promoting Cognitive (1%) or Behavioural (1%) student engagement but mostly engagement being Receiving of information (55%). The university also played a Supporting role (25%), with the number of Supporting communicative acts rising from February 2020, but still less than Informing acts. Supporting updates encouraged Behavioural (12%), Emotional (11%) and Cognitive (2%) student engagement. Advising was the third most common role taken on by the university (16%), with updates designed to engage students behaviourally (14%) and cognitively (2%).

April 2020 figures for COVID-19 cases reflected Western Australia's early stabilisation of the pandemic (stable phase) unlike other states in Australia. The university's role in the VC's updates was mostly Supporting in this phase (50%); engaging students behaviourally (32%) and emotionally (18%), although Informing was also common throughout the April 2020 updates (40%), but not nearly as much as March 2020 (57%). The majority of this was students just Receiving information (33%) or expected to engage behaviourally with it.

Overall, the VC's communications became much more supportive in April 2020 after being mostly focused on Informing in February and March. Her linguistic style changed to letter style and incorporated salutations and closings. For example, in the written updates of 4, 13 and 21 February 2020, salutations and/or closings were absent. In the written updates of 13 and 16 March 2020, there were supporting closings: "Kind Regards, Professor Deborah Terry" and "Professor Deborah Terry AO, Vice Chancellor". By 26 March 2020 the VC was including both a salutation and a closing statement of support in her written updates, starting with "Dear Curtin student" and closing with personalised, intimate expressions, for example "I wish you and your loved ones all the best. Professor Deborah Terry AO. Vice Chancellor," or "Best wishes, Professor Deborah Terry AO. Vice-Chancellor," or a combination of the two, for example "Once again, I wish you and your families all the very

best during these challenging times. Best wishes, Deborah Terry AO". She used the first person singular ("I") and plural ("we") and the second person "you" in the updates from 26 March 2020 onwards, creating a much less formal tone and a feeling of concern.

Findings from video messages

Only two video messages or VCTV events were analysed due to availability. Key multimodal observations in the videos are noted after Figure 6.2.

In the video update of 20 March 2020, the VC is portrayed in a yellow painted room, which is subdued to highlight the VC more brightly. Paintings and personalised artefacts are in view giving the impression of an organised, controlled, historical environment that can be trusted to inform and advise, but there is a glimpse of the outside garden through the window suggesting that the university is also in touch with the outside world and therefore capable of understanding and supporting students in their lives outside of the university. Vertical and horizontal lines in the room enforce impressions of rigidity and strength while the
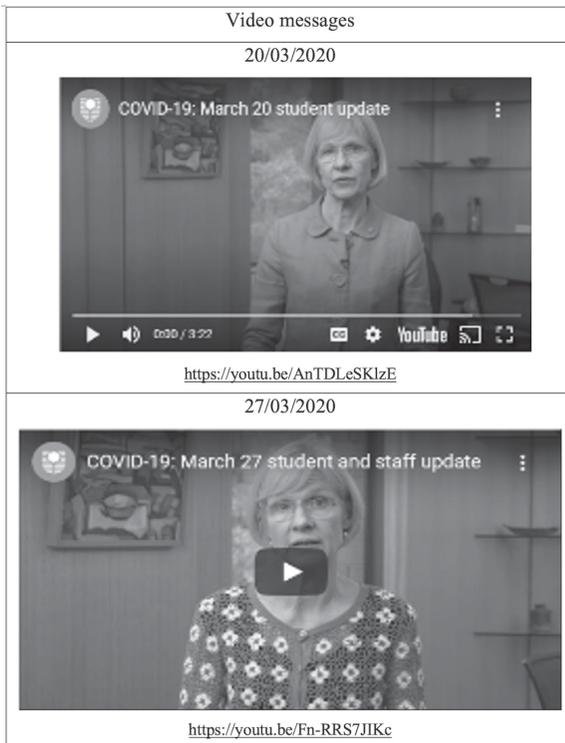
Figure 6.2 VC addressing viewers on two separate occasions.

curved lines of the plants outside, sunshine, the VC's position slightly to the right of the screen (allowing the garden to be seen), a bright warm coloured suit with top button undone casually, matching lipstick and a tiny brooch on her collar (with earrings) again soften the scene, giving her a more supportive image. She is looking directly at the camera in a serious but not stern fashion, at a medium to close range with the camera occasionally zooming in when she says something that needs to be particularly noted, that is, "one of the measures the community is focusing on is physical distancing". The point of view is horizontal, frontal angle, head, shoulders half of torso, again making the announcement more up close and personal. She evokes high interpersonal involvement, appearing earnest and concerned and pauses deliberately on key words such as her opening phrase, "hello" and "you". She also responds paralinguistically with gesture when she says things such as "reassure you". Overall, these orchestrated effects serve to emphasise the fact that the university is playing a role as a strong institution that can inform and advise students, but at the same time be a mother ship supporting its students.

In the video update of 27 March 2020, similar effects have been used, but this time the feeling is overwhelmingly one of support rather than information or advice giving. The setting is the same solid, conventional room but there is a slightly bigger view of the outside visible (a more turbulent scene with trees blowing), which matches the sense of the university being in touch with the "real world" at a time when COVID is upsetting everybody's lived experience. The VC is more brightly and informally dressed in the 27 March video wearing an ethnically designed cardigan, possibly to appeal to the Curtin Malaysian campus students who she was also addressing. Her position on the camera is more central than in the previous video and her gaze is once again direct but slightly more serious than in the 20 March video. The camera zooms in as the VC is speaking about Curtin being supportive and as she becomes more deferential, saying, "In these testing times I continue to be humbled by the …". The point of view is slightly closer than 20 March, but still a horizontal, frontal angle, head and shoulders. Her interpersonal involvement is once again very high, emotional almost, indicating genuine concern for students. This is accompanied by a lot of gesturing at the beginning of the video especially when she says "we" and "you" and delivery is slow and deliberate, giving the audience the sense that they are being addressed personally.

Overall, the multimodal aspects of the VC's video messages were crafted to complement the linguistic components and communicative acts of Informing, Advising and Supporting, with the latter being foremost in the 27 March video update. This ensured Behavioural, Cognitive but mostly Emotional engagement on the part of the students.

The case of the University of Sydney (USyd)

Background and data sources

The USyd relies heavily on significant international student revenue. Prior to the COVID-19 outbreak, in 2018, domestic students at USyd accounted for 62% and international students 38%, of which 71% were born in North-East Asia (China, Japan, Mongolia, North Korea, South Korea, Russian Far East and Siberia) (The USyd, 2018). At the outbreak of COVID-19 in early 2020, the university employed a series of public communication channels to engage its staff and students, including an official online "gateway" for all information relating to COVID-19 (www. sydney.edu.au/study/coronavirus-infection-university-of-sydney-advice. html), the VC's frequent written updates in the form of letters directly to staff and students (www.sydney.edu.au/news-opinion/news/2020/01/28/ coronavirus-infection-university-of-sydney-statement.html), and the VC's video messages to Chinese international students in Mandarin Chinese on the University of Sydney Centre in China WeChat official account (e.g. https://mp.weixin.qq.com/s/aOT1fkD-Pr6jK5aRhIwd0g).

A preliminary examination indicates that the USyd COVID-19 website just served as an information platform in response to the pandemic and that engagement with students was not obviously observed. Engagement was more apparent in two types of texts: (1) COVID-19 updates from the VC for students in letter format at varied intervals during the different phases of the disruptions (from 5 February to 14 May 2020) and (2) video messages featuring the VC speaking in Mandarin Chinese to Chinese international students (from 18 February to 3 April 2020). These texts were selected as the data for analysis as shown below.

Findings from the linguistic texts

Findings from the analysis of nine COVID-19 updates in letter format from the VC to students are summarised in Table 6.4. The VC tended to provide emotional support to the affected students by using a personalised form of communication. For example, all the updates were in the form of a letter, starting with "Dear students", and ending with "Yours", VC's first name and then formal signoffs. The most common role that the university played during this period was Informing students about the current situation with COVID-19 and their university course (45%). This could be broken down into university communication that students were just expected to Receive (25%), and information students were expected to engage with behaviourally (19%) and cognitively (1%). The second most common role that the university took on during these three months was Supporting (35%). The VC's written updates were designed to support students and get them to engage behaviourally (17%), emotionally (16%) or cognitively (2%). The third most common university role, evident in

Table 6.4 USyd's communicative acts and student engagement

Wcommunicative acts	International students' engagement	COVID-19 updates in letter format									Subtotal	Total
		5 Feb	7 Feb	14 Feb	6 Mar	13 Mar	17 Mar	7 Apr	7 Apr to HDR	14 May		
Requiring	Behavioural	2	1		1	3	2		4		13	13
	Emotional											
	Cognitive											
Advising	Behavioural	2	3	1	5	10	4	1	12		38	40
	Emotional											
	Cognitive					1	1				2	
Informing	Behavioural	3	5	6	7	4	9	5	5	5	49	118
	Emotional											
	Cognitive			1	1				1		3	
	Receiving	3	17		7	9	8	4	4	14	66	
Supporting	Behavioural	5	2	3	14		4	7	5	3	43	89
	Emotional	4	3	5	7	6	5	5	4	3	42	
	Cognitive					1	3				4	
Total		19	31	16	42	34	36	22	35	25	260	260

the VC's updates in letter format, was Advising (15%), with students advised to engage with the information contained in these letters behaviourally (14%) or cognitively (1%). The least common university role in the VC's updates in letter format was Requiring, with students expected to engage behaviourally (5%).

With regard to the different phases of the COVID-19 outbreak, February 2020 (the early phase) saw the university's role as mainly providing information (53%) and support (33%) to the students. With the Informing by the university, the students were expected to just Receive the information (57%) and engage behaviourally (40%) or cognitively (3%). With the support provided by the university, the students were expected to engage behaviourally (45%) or emotionally (55%).

March 2020 (beginning of the critical phase) saw the rapid spread of COVID-19 in Australia. With confirmed cases being identified on USyd campus, all the units of study were moved online. The VC's updates in this month were clearly longer than those in other months. Out of the 260 instances of communicative acts in these nine letters, 66 were in February, 112 in March and 82 in April/May 2020. While the total number of engagement instances nearly doubled in March 2020, the university's roles were still Informing (40%), Supporting (36%) and Advising (19%), all of which were noticeably higher than those in the earlier phase.

April/May 2020 saw the easing phase of the pandemic in Sydney. The university's roles in April/May 2020 continued to be Informing (46%) and Supporting (33%). Students were expected to Receive information without further engagement (58%), or engage behaviourally (39%) or cognitively (3%) with it. The students were also expected to engage with the support provided by the university behaviourally (56%) and emotionally (44%).

A personalised and intimate style was used in the updates, with the use of salutations and closings when providing the latest information and offers of firm support, the use of the first person singular "I" and plural "We" when demonstrating the actions taken by the university, and the use of second person "you" used in every possible circumstance to engage closely with the students. In addition, only high or medium modality words (e.g. "must", "should", "will") were used across all the written updates to demonstrate the strength of support and the certainty of information that the university was providing during the rapidly changing situation.

Findings from video messages

It was a unique practice for a VC of an Australian university to speak directly to Chinese international students in their own language (Mandarin Chinese) using WeChat, a social media platform widely used by the students in their home country. The VC's talks were featured as a series of video messages about 1–2 minutes each, highlighting the key

information that students needed to know. Three of the video messages (see Figure 6.3), delivered between 18 February 2020 and 3 April 2020, by the VC in Mandarin Chinese, were selected to compare and contrast the differentiated discursive strategies taken by the VC in response to the changes amid the pandemic.

Video 1 (18 February 2020) was the first video message delivered by the VC at the very outset of the pandemic. It features a dark office setting with a shuttered window, while the background is subdued to highlight the VC, who is in a dark suit and a dark blue tie. He has a serious and worried look with a direct gaze during his delivery. He is positioned at the centre of the screen, while leaning slightly to the left. The distance of the shot is generally medium to close with a horizontal and frontal angle. The interpersonal involvement with the audience is very high, earnest and concerned. During the delivery, he pauses on key words and gestures with his hands to highlight key points every now and again. In this video message, the university roles are mainly Informing, Supporting and Advising, while the student engagement is Receiving, Emotional and Behavioural.

Video 2 was delivered on 12 March 2020, when the pandemic was spreading widely in China and Wuhan became the first city to be put into lockdown. The setting of the video is a bright office with a shelf featuring books and Chinese artefacts (e.g. a Chinese vase). A heart-shaped sign on the left of the screen features "加油中国" (stay strong China) and two lines of Chinese on the right bottom read "共抗疫情，武汉加油" (Fight the pandemic together, Stay strong Wuhan). The VC is in a dark suit with a violet-red tie. He is positioned slightly to the right of the screen, and leans backward in a relaxed position, while he directs his gaze and has a warm, smiling expression. The distance of the shot is medium to close, with a horizontal and frontal angle. The interpersonal involvement with the audience is very high, earnest and concerned. During the delivery, he pauses on key words and makes gestures with his hands to highlight the university's strength and support every now and again. In this video, the university role is mainly Supporting, while the student engagement is Emotional.

Video 3 was delivered on 3 April 2020, when the lockdowns were easing in both Australia and China. The setting of the video is an office with campus views through the window and the background is subdued to highlight the VC. The VC is in a bright shirt and a grey tie. He is positioned at the centre of the screen and is leaning slightly to the left. He has a direct gaze and a caring and concerned look. While the distance of the shot is medium to close, at 0.26 minute (of the video) the camera suddenly zooms in to his head and shoulders when he says, "the university provides financial and scholarship support" and pulls back out again at 0.36 minute when he stops talking about this topic. The point of view is at a horizontal, frontal angle. The interpersonal involvement with the audience is very high, earnest and concerned. During the delivery,

Figure 6.3 VC speaking to international student viewers in Mandarin Chinese.

he pauses on key words. In this video message, the university roles are mainly Informing, Supporting and Advising, while the student engagement is Receiving, Emotional and Behavioural.

Multimodal aspects of the VC's video messages were well prepared to complement the linguistic messages that the VC was delivering. The settings of the videos are all in an office with different outside backgrounds, linking the internal setting (the office) to the outside world, including the Sydney campus (e.g. 3 April 2020) and China (e.g. 12 March 2020). The VC's attire and facial expressions are well matched to the settings and the linguistic information that he is delivering, highlighting the changes of emphasis during the pandemic and the support provided by the university. In the first video message (18 February 2020), when the pandemic broke out in China, the setting of the video, as well as the VC's attire and his way of speaking, underlines the seriousness of the situation and the possible support provided by the university. Along with the development of the situation, the VC's attire becomes more informal, with casual bright red and light blue ties replacing very formal dark blue ties. The video settings are also brighter and more open to the world outside. All of this, including the VC's use of Mandarin Chinese in the video messages, indicates the endeavours made by the university to engage international students in a deeper and more effective manner.

Discussion and conclusions

We began the study by asking how Australian universities engaged their international students amid the COVID-19 pandemic and how a situated discursive practice perspective could shed more light on university and student engagement. Our case studies of the engagement practices of the University of New England, Curtin University, and the University of Sydney, through their public communications, indicate that all three focal universities displayed high levels of pastoral care for their international students. This is attested in the large number of Informing and Supporting communicative acts observed in the communications of the universities and the larger number of such communicative acts at critical stages of the pandemic. The focus of the universities, through the communicative efforts of key academics such as the VCs, indicates a university stance which values connection, greater intimacy and caring, which is in line with the literature which calls for a re-humanising of university academics and their intersubjective experiences with students (Gilmore & Warren, 2007).

However, other roles included in Cognitive engagement, such as promoting thinking, critiquing and reflecting, were downplayed by all three universities. This is evident in the minimal Cognitive engagement instances identified in the linguistic and visual texts. While a calibrated degree of action is to be expected in these extraordinary times of an unprecedented, urgent, high-risk situation, where rules need to be conveyed

and obeyed for the safety of all, and where student mental health is at stake, this stance still challenges the accepted role of universities as encouragers and promoters of critical thinking, in particular, during a crisis situation. This critique resonates with Zepke's (2018) call to take student engagement beyond prevailing neoliberal practices of focusing on engagement for practical ends (e.g. pastoral care to enhance student emotional experience), to encourage students to be reflexive of prevailing practices and to ask questions about purposes and values of engagement. What will be interesting to see is if the universities continue their Informing, Requiring, Advising and Supporting stances post COVID-19 circumstances, at the expense of encouraging and stimulating more Cognitive student responses. Just as the Australian public is now resenting the "big brother" approach of the Australian government to lockdowns and raising their voices against the Informing, Advising, Requiring and Supporting messages coming through to them from all spheres, students may find their critical voice once they tire of COVID constraints or when the crisis subsides.

Our study also demonstrates that the perspective of situated discursive practice provides a viable way of analysing student engagement in naturally occurring interactions forming the basis for important engagement practices at Australian universities. By analysing public communications with international students, in terms of communicative acts and dimensions of engagement, we are able to specify the roles and responsibilities that are constructed for the university and, in particular, the international student in the nexus of their interactions. This critical discourse analysis explicitly highlights how engagement involves both the university and the student in a joint undertaking, which has immediate and far-reaching consequences (Kahu, 2013; Kettle, 2021) and provides insights at the ground level into the ways in which multimodal communication can be used to achieve different communicative ends.

Multimodal texts in the form of photographs and video messages have value added to many dimensions of meaning, in particular, interpersonal and compositional meanings. At a time when student engagement was pivotal, universities opted even more for these powerful multimodal texts to combat the educational disruptions and uncertainties caused by the COVID-19 pandemic. There may, of course, be a more practical reason for the use of video messages at USyd and Curtin University, where larger numbers of international students mean there is more at stake for the universities and therefore a higher level of investment on their part is required. USyd obviously has a greater share of Chinese students and, therefore, while efforts to communicate with all international students on their campus were made, Chinese students, in particular, were extremely well supported with multimodal material translated into their first language. The videos show these universities attempting to reach out to international students in an unprecedented empathic way, highlighting the capacity of Australian universities to develop a human face, with the

professional and personal entangled with one another and the university becoming more of a "moral guide", something normally associated with educational institutions in Asia (Phan, 2008, p. 6) and a role with which many international students from Asia would be familiar. It will be interesting to interview international students from Asia about their reactions to these efforts.

In this chapter, we have demonstrated how three Australian universities employed a range of texts, communicative acts and multimodal resources to engage students, and particularly international students, through public communication channels during the COVID-19 pandemic. Using multimodal discourse analysis, we made visible the tacit discursive strategies and practices that can be used by universities to connect with their students. It seems VCs can become more than just figure heads and enact integral communications directly with students, showing empathy and understanding for students' experiences in the process. This greater focus on directly supporting students in more explicit and accessible ways should not be dismissed when COVID-19 is relegated to the backbenches of experience. Hopefully, these explicitly informing and supporting approaches can also be complemented by the more cognitive approaches expected of a university once the conditions of urgency subside.

References

Askehave, I. (2007). The impact of marketization on higher education genres: The international student prospectus as a case in point. *Discourse Studies, 9*(6), 723–742.

Austin, J. L. (1962). *How to do things with words*. Oxford University Press.

Casanave, C. P. (2015). Case studies. In B. Paltridge, & A. Phakiti (Eds.), *Research methods in applied linguistics: A practical resource* (pp. 119–135). Bloomsbury.

Clark, H. H. (1996). *Using language*. Cambridge University Press.

Curtin University. (n.d.). *Curtin University student statistics 2015-2019*. https://planning.curtin.edu.au/stats/student_stats.cfm.

Giannoni, D. S. (2018). An investigation of value claims in academic and corporate "About us" texts. *Applied Linguistics, 39*(3), 328–351.

Gilmore, S., & Warren, S. (2007). Emotion online: Experiences of teaching in a virtual learning environment. *Human Relations, 60*(4), 581–608.

Hyde, M. (2017). Creating inclusive schools. In M. Hyde, L. Carpenter, & S. Dole (Eds.), *Diversity, inclusion and engagement* (3rd ed., pp. 395–409). Oxford University Press.

Hyde, M., Carpenter, L., & Dole, S. (Eds.). (2017). *Diversity, inclusion and engagement* (3rd ed.). Oxford University Press.

Kahu, E. R. (2013). Framing student engagement in higher education. *Studies in Higher Education, 38*(5), 758–773.

Kettle, M. (2021). Conceptualising the complexity of international student engagement: Antecedents, actions and accomplishments. In Z. C. Zhang, T. Grimshaw, & X. S. Shi (Eds.), *International student education in tertiary*

settings: Interrogating programs and processes in diverse contexts (pp. 107–124). Routledge.

Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design* (2nd ed.). Routledge.

Lawson, M.A., & Lawson, H. A. (2013). New conceptual frameworks for student engagement research, policy, and practice. *Review of Educational Research, 83*(3), 432–479.

O'Halloran, K. L. (2004). *Multimodal discourse analysis: Systemic functional perspectives*. Continuum.

O'Halloran, K. L., Wignell, P., & Tan, S. (2015). Online university branding: A multimodal social semiotic approach. In G. Rossolatos (Ed.), *Handbook of brand semiotics* (pp. 280–327). Kassel University Press GmbH.

Phan, L. H. (2008). *Teaching English as an international language: Identity, resistance and negotiation*. Multilingual Matters.

Reich, W. (2011). The cooperative nature of communicative acts. *Journal of Pragmatics, 43*(5), 1349–1365.

Searle, J. R. (1969). *Speech acts: An essay in the philosophy of language*. Cambridge University Press.

Simons, H. (2009). *Case study research in practice*. Sage.

Stake, R. F. (2006). *The art of case study*. Sage.

Student Experience Survey (SES). (2020). *2019 student experience survey: National report*. www.qilt.edu.au/docs/default-source/ses/ses-2019/2019-ses-national-report.pdf?sfvrsn=6486ec3c_2

Swanborn, P. (2010). *Case study research: What, why and how?* Sage.

Teo, P., & Ren, S. (2019). Marketization of universities in China: A critical discourse analysis of the university president's message. *Discourse & Communication, 13*(5), 539–561.

The University of New England [UNE]. (2020). *Previous updates*. www.une.edu.au/coronavirus-information-old/previous-updates.

The University of New England [UNE]. (2021). *Why choose UNE*. www.une.edu.au/study/international/why-choose-UNE.

The University of Sydney [USyd]. (2018). *Cultural and linguistic diversity at the University: A discussion paper*. (Internal unpublished document).

The University of Sydney [USyd]. (2020). *A message from the Vice Chancellor on 7 February 2020*. https://communications.sydney.edu.au/link/id/zzzz5e3cc68070434849Pzzzz5d92c3b5c3d65072/page.html.

Zepke, N. (2018). Student engagement in neo-liberal times: What is missing? *Higher Education Research & Development, 37*(2), 433–446.

Zhang, Z. C., Tan, S., Wignell, P., & O'Halloran, K. L. (2020). Addressing international students on Australian and Chinese university webpages: A comparative study. *Discourse, Context & Media, 36*, 1–13.

7 "We are in this together"

Cultural branding and affective activations in a pandemic context

Carl Jon Way Ng

Introduction

Branding and brand communications are often thought of as strategic and creative efforts that contribute to the survival and success of business organisations, and seen as managerial-oriented activities driven by marketers and managers to cultivate the brand, brand meanings and brand communities (see e.g. Balmer, 2012; Gylling & Lindberg-Repo, 2006; Leitch & Richardson, 2003). Professional and scholarly attention has also been directed towards the role of brand communications in these processes, and how it works through, for instance, the deployment of semiotic resources such as language and visuals in multimodal brand artefacts like advertisements, annual reports and social media posts as well as calculated everyday communicative practices that supposedly signify the identity of the brand (Flowerdew, 2004; Koller, 2009).

Despite the supposed space for autonomy and creativity in brand communications however, branding and its semiotic choices are not independent of the larger conditions of the social, ideological and discursive terrain on which branding takes place. Within any particular context, certain brand meanings, attributes and values, and their semiotisations, are likely to have more resonance than others vis-à-vis the lived experiences and proclivities of consumer-audiences *qua* citizen-actors within this sociocultural space. Effective branding, in this regard, is seen as speaking to the pragmatic, identity, emotional and social needs and inclinations of consumer-addressees in relation to the specific socio-discursive-ideological contexts they inhabit (Eckhardt, 2015; Fournier, 2009; Schroeder, 2011). Such contexts, as shaped by the attendant dominant social and cultural flows and dynamics, constrain what brand-communicative choices might be resonant with addressees while making available particular semiotic-ideological repertoires for deployment by managers and marketers (Ng, 2018b). Brands, especially resonant ones, and their brand enactments are inextricably embedded in the sociocultural landscape and function as important barometers of dominant social ethos and fluxes.

It would not be an overstatement to see the COVID-19 pandemic as a key moment of sociocultural destabilisation resulting in changed

socio-consumption attitudes and practices and a changed socio-discursive-ideological terrain that is to some extent global. Terms such as "pre-" and "post-COVID" are already being used to delineate a substantively different set of socio-historical experiences, sensibilities and developments, even though these may be inflected in variable ways depending on specific contexts, locations, organisations and individuals. Indeed, the coronavirus pandemic has spurred a whole host of organisations and brands from a wide range of industries and sectors to tap the themes of togetherness and solidarity in their brand communications, with Britain's Universities UK ("#WeAreTogether"), fintech newswire Finextra ("We will get through this together") and Tourism New Zealand ("TOGETHER, APART") just some of these.

In the badly hit airline industry, Singapore Airlines (SIA) ("We are in This Together") and its low-cost subsidiary Scoot ("We're in this together"), Cathay Pacific Airways (CPA) ("#MoveBeyond the storm together") and United Airlines ("United Together") were among the first to leverage these tropes, with United Airlines' new brand messaging even accompanied by a refreshed logo (Lazare, 2020). This stress on "togetherness" is of course possible because of the widespread effects of the pandemic, with significant suffering experienced by business organisations and consumer-addressees alike, providing possibilities and opportunities for brand communications to emphasise connectedness of experience between brands and their audiences. Moreover, while airlines have for a long time tapped meanings of fun, pleasure, mobility, exclusivity and privilege in their brand communications (see e.g. Thurlow, 2020, 2021; Thurlow & Jaworski, 2006), persisting with such a communicative strategy is unlikely to be wise at a time of widespread pandemic-related deprivation and disruptions to air travel, and at a time when lifestyle-aspirational sentiments have taken a backseat in the face of job losses and more immediate bread-and-butter concerns. But the new branding trajectory in the airline industry is also of an existential nature, at a time when many carriers – even premium, full-service industry leaders – have had to shut, massively restructure and/or receive government bailouts for survival (Ng, 2020), giving rise to fundamental questions about the raison d'être of airlines, their relations with citizen-consumers, as well as their immediate and long-term viability.

It is in this vein that this chapter looks at the airline industry and its brand communications in the context of the pandemic. Taking a social semiotics-informed approach (Kress & van Leeuwen, 2006; Machin, 2007), the chapter begins by contextualising branding as co-constructed, cultural and affective processes. It then looks at how airline brands, in seeking to (re)connect with consumer-audiences, activate and semiotise particular kinds of affective meanings to do with solidarity, empathy, care and obligation in their multimodal brand communications, enacting brand identities that index responsible social and corporate citizenship that gives importance to attending to and ameliorating the distress of

fellow citizens. This is done by way of analysing brand-communicative texts produced by two industry-leading carriers, SIA and CPA, and the affective-semiotic work of these brand artefacts, specifically, two Facebook posts as instantiating the broad contours of branding in a pandemic context. In line with the social-semiotic perspective taken that sees semiotic choices and features as ideologically and socially significant (Kress, 1985; Machin & Mayr, 2012), I also consider the effects of such brand communications not merely as strategic rhetorical work, but also as constitutive of the social world, shaping social and marketplace norms and perceptions, interpellating particular types of consumer-addressees, and valorising particular value systems (Askegaard, 2006; Elliot & Wattanasuwan, 1998; Muniz & O'Guinn, 2001).

Branding as co-creative cultural process

Branding serves to represent and convey what a brand is about – that is, its identity as constituted by its attributes, values and other associations – to appeal to stakeholders and audiences as a way of cultivating their support and goodwill (Balmer & Gray, 2003; Gylling & Lindberg-Repo, 2006). In its practice, the focus of brand communications has over time shifted from material description to loading of conceptual meanings (Csaba & Bengtsson, 2006; Flowerdew, 2004; Klein, 2000). While brands were previously symbolic extensions of core products/services, the latter are now more accurately seen as material extensions of the brand as primarily a locus of symbolic meanings and associations (Askegaard, 2006). In the attempt to more effectively connect with consumer-audiences, these symbolic meanings increasingly come to be those associated with persons; performing an attractive pseudo-personhood to forge affective resonance and stimulate affective investment on the part of audiences becomes an important priority for brand communications (Csaba & Bengtsson, 2006; Kapferer, 2008; Manning, 2010; Ng, 2018a).

This performance of brand identity is premised on the deployment of semiotic resources such as language and visuals, among others, with managers and marketers focused on crafting the most appealing and compelling brand identities through, for instance, multimodal brand artefacts and communication platforms (Flowerdew, 2004; Koller, 2009). While this work of identity performance is strategic and reflexive, it is sensitive to and contingent on the discursive-ideological context in which the processes of branding operate. If brands are (self-)fashioned as pseudo- or metaphorical persons (Ng, 2018a), then we can think analogously about the identities of persons and brands alike. Butler's (1999) notion of performative (gender) identity, for instance, can apply to that of brand identity, particularly in the way it conceives of identity as constituted by the continuous and sustained performance of acts and attributes that are indexical of particular (socially recognised) cultural codes and identity profiles. Rejecting the idea that acts and gestures express or reveal a

pre-existing identity, Butler sees these performances as producing the very identity that is presupposed to exist. In some ways, it could be argued that such a conception suits brand identities even better than personal identities, since brands do not essentially possess the physical DNA and innate biological properties that might be said to pre-exist for persons (although brand identities could be seen as extensions of the identities of their founders or key leaders; see e.g. Casprini et al., 2020; Shi, 2019).

Equally significant is Butler's insight that despite the apparent reflexivity and autonomy of choice in semiotic identity enactment – since there is no predetermining pre-existing identity – there are external constraints in as far as dominant discursive-ideological regimes structure the social context of identity performance. Holt (2004), for instance, connects the success of iconic brands to how well their branding campaigns have understood and tapped key zeitgeist elements at important socio-historical junctures. The examples of Corona and Snapple in 1990s America are provided as lessons in how brands can reverse their flagging fortunes and/or ensure their market relevance by speaking to the needs, inclinations, frustrations and aspirations of consumer-audiences vis-à-vis the social milieu within which the brands are received and consumed as symbolic products. Particularly for these two brands, tapping and semiotising tropes of tranquil relaxation and an "anticorporate amateurism" in their branding created immense resonance with the consumer public at a time of relentless workplace competition, stress and insecurity and widespread social discontent – a result of Reagan-style neoliberal economic developments and profound labour market shifts taking place in American society. The brands' offering of vicarious comfort and relief from the vicissitudes of the neoliberal work-/market-place and a symbolic opt-out of the neoliberal system through their brand communications therefore took place vis-à-vis neoliberalism as a dominant discursive-ideological formation and by-then economic orthodoxy with indubitable impact on American social and economic life (see e.g. Harvey, 2005; Steger, 2009, on neoliberalism as hegemonic discourse, cultural formation and economic orthodoxy).

These examples demonstrate how neoliberalism, as a hegemonic discursive and political-cultural formation, gave rise to a discursive-ideological repertoire for branding, particularly in the form of semiotic resources that attend to consumer needs and discontent associated with neoliberalism. Paradoxically in these cases, the neoliberal regime demonstrates its hegemonic capacity not by deterministically steering brands to express direct support for neoliberal values; instead, the brands were performed in a way that connected with addressees by providing comfort and succour to symbolically help addressees navigate neoliberal values and their instantiations in the work-/marketplaces and social life in general without necessarily undermining – and in some ways even legitimating – the foundations of the regime that continued to serve as the reference point for tropes in branding. This is not inconsistent with Butler's notion of performative (gender) identity; even when a

non-heteronormative identity is performed and asserted, it is done so, perceived, interpreted and evaluated vis-à-vis a dominant and regulatory heteronormative discursive regime. Naturally, the regulatory effects of the dominant discursive-ideological frame also operate when brands enact and valorise identities that are complementary of or even directly strengthen the dominant discourse, as is the situation with Singapore's higher educational brands (Ng, 2018b).

Whatever the case, branding is inextricably situated within the strictures and referentiality of the dominant sociocultural regime and discursive landscape – inadvertently attending to these by, for instance, echoing, complementing, strengthening, addressing, mediating and/ or subverting the cultural dominant. Brands and branding are cultural responses, mediators and products as much as they are part of the very process of cultural formation – affirming and/or shifting the attitudes and inclinations of consumer-addressees who bring with them particular needs, attitudes and inclinations in their engagement with the brands, and who have, to varying degrees, been influenced and conditioned by the existent dominant cultural flows. This is because brand addressees themselves have always already inhabited the same discursive-ideological landscape and are not exempt from its regulatory effects, though not necessarily in deterministic or predictable ways. In as far as consumer-audiences do not interact, engage and connect with brands in any state of tabula rasa, branding is a dynamic process, with brands being "dialectical and actively co-created entities that evolve with consumers and cultures in kind" (Allen et al., 2008, p. 787; see also Aspara et al., 2014; Fournier, 2009; Wang, 2008) – especially in times of broader sociocultural shifts and destabilisation, when brands can serve as resources for consumer-actors to navigate and (re)negotiate their identities and place in society (Elliot & Wattanasuwan, 1998; Holt, 2004; Muniz & O'Guinn, 2001).

Branding as affective process

Given how much contemporary branding involves relational work that seeks to cultivate resonance and forge affinity with consumer-addressees (Gylling & Lindberg-Repo, 2006), strategies and processes that attempt to stimulate affective connections and elicit affective investments are central to branding. It is now common for brand and marketing consultants to advocate persuasion and influence through the use of strategies that engage with consumers at the level of the senses and emotions to attend to the consumer's experience of well-being and satisfaction (see e.g. Gobé, 2001; Pringle & Field, 2008). Indeed, the success of brands such as Corona and Snapple discussed in the previous section is premised on how the brands are inserted into the lives of consumer-audiences as (pseudo-) companions who sympathise, empathise and provide symbolic comfort, relief and other forms of affective "support" in ways that respond to the developments and challenges in the broader sociocultural environment.

This, of course, does not negate the place or use of brand communications that leverage reason-based claims or factual characterisation, which are often used alongside and/or in a way that complements more symbolic and emotion-oriented approaches. However, the emphasis on making emotional, sensuous-experiential and social connections in contemporary branding means that affective work often takes precedence, such that even when reason-based or factual characterisation is present, it serves as a basis for affective appeals and feel-good sentiment to be engendered (Ng, 2016). In fact, in examining how airline frequent-flyer programmes are promoted, Thurlow and Jaworski (2006, p. 117) note that "much of what is on offer is illusory insofar as it functions at the level of semiosis rather than materiality, despite being presented as material benefit" – pointing to the semiotic enactment of symbolic-affective meanings, not always with any material bases, as often the primary focus and strategy of contemporary branding.

In the airline industry, affectively oriented branding is certainly not new (see e.g. Thurlow, 2020, 2021; Thurlow & Jaworski, 2006). Airlines may make mention of the bigger seat pitch and legroom, better amenities, comprehensive inflight entertainment systems, sumptuous inflight meals and a more comfortable passenger lounge, among other things, in their carefully crafted multimodal brand artefacts, but these descriptions index the material complements of the more pointed affectively driven messages that are about associating customers with and/or conferring on them status, eliteness, luxury, distinction, pleasure, exclusivity and so on. Among other linguistic/semiotic strategies, Thurlow (2021) observes that a "lexical excess" accompanies the description of the "premium" in Premium Economy due to the imprecision and ambiguity of the term. Noticeably, the promotion of "premium" exhibits a constant slippage between and/or mixing of material benefits and symbolic meanings to do with "notions of 'style', 'elegance', 'exclusivity', and 'indulgence'", and it is this assemblage that works to imbue "premium" with meaning and desire. Importantly, as Thurlow's (2020) study of Business Class menus demonstrates, airline branding attends to the esteem and affective well-being of customers by ascribing to them a sense of deservedness, helping customers to feel good about feeling good and stimulating "the euphoria of privilege" (Thurlow, 2020, p. 15).

In this way, airline branding not only appeals sensorily, experientially and emotionally, but also nurtures a continuing aspiration towards and desire for the "privilege" offered by the airlines. And in linking customers' attainment of this "privilege" to their putative ability and merit, the branding is consistent with the neoliberal valorisation of self-effort and self-empowerment leading to progress, well-being, fulfilment and self-actualisation (Goldman & Papson, 2006, also Thurlow, 2020). Consequently, brand communication does not just sell brands and products/services as their material extensions; it also purveys a broader discursive-ideological orientation and ideal(ised) attitudes. While

branding seeks to cultivate a positive affective disposition towards the brand that is intended to lead to brand support and loyalty, this affective work is not simply about steering emotion and cultivating emotional connection. Rather, the affective work of cultivating positive brand-directed attitudes should be seen as part of (cultivating) a broader world view and sensibility within which the brand can locate itself favourably. As Wetherell (2012, p. 12) notes, affect is "sense as well as sensibility". As an affective process, branding engages with emotion and the senses, as well as inculcates and interpellates a particular consumer-addressee identity and affective subjectivity with particular needs, aspirations and desires. In pursuing the overarching objectives of profit and commercial success, branding engages with and shapes value systems, activating its socio-didactic function to purvey standards of what is good and desirable and key ideas about what constitutes success and well-being (Askegaard, 2006; Ng, 2018a; Thurlow & Jaworski, 2006). In performing brand identity, branding simultaneously performs consumer-addressee identity, especially when it is successful in producing positive addressee orientations towards the brand and in cultivating addressee aspirations and desires in alignment with the normativised world view enacted in and through the brand communications.

It should be noted that branding's affective work is not simply undertaken by brand managers and marketers. Brand strategies seeking to cultivate positive attachments around the brand often involve generating, stimulating and appropriating the affective investments of consumer-audiences themselves (Arvidsson, 2005), especially if brand construction is seen as a culturally situated co-creative process that entails the affective labour contributions of consumers, who – ideally, from the point of view of brand managers – begin to "own" the brand and become part of the brand community. That affective investment into the brand and what it stands for is closely tied with an investment into the values and the larger world view embodied by the brand. Consumer-addressees, in contributing their affective labour towards constituting and strengthening the brand, effectively participate in cultivating their own consumer identity and affective subjectivity.

Analysis

In the following, I look at two examples of airline brand communications from Singapore's flag carrier SIA and Hong Kong-based CPA, particularly two Facebook posts that instantiate airline branding in a pandemic context. Posted on the airlines' Facebook pages in May 2020, these choices are partly a matter of convenience as well as motivated ones. In many places, significant lockdown measures were put in place from around March/April 2020, and by May, there was increasing clarity that the effects of COVID-19 were going to be deep and long-lasting. This sense of "certainty" about the situation, perverse as it may be, spurred

companies into action in terms of making longer-term plans in response to the pandemic. For airlines, this phase was also when flight schedules were radically scaled down and airlines were actively putting in place new operational policies and business strategies. The brand communications put out during this phase was both forthcoming and clearly situated within the pandemic context and with recognition of its impact, presenting such messages as ideal candidates for analysis. The two examples analysed in the following are certainly unique brand-communicative artefacts in themselves, but also instantiate the broad contours of branding in the context of the COVID-19 pandemic. The choice of these examples also provides some degree of parity, given the reputation of both airlines as leading flag carriers of two economically dynamic cities with world-class air hubs, and therefore also indisputable victims of COVID-19's devastating impact.

Due to the grounding of most of its passenger flights, SIA redeployed some of its cabin crew to work outside of SIA in areas such as healthcare, transport and contact tracing. This redeployment provided practical help, given the increased demands on healthcare institutions (though the redeployment involves only non-clinical roles), crowd control needs at transport hubs and intensive contact tracing duties under the aegis of the Singapore health ministry. It is also practical in an ameliorative way for the airline in helping to keep employed at least some of the company's cabin crew, many of whom would otherwise be retrenched or furloughed. Nonetheless, while not discounting the practical impact of such a move, much of it is leveraged for its symbolic role in indexing a particular brand that is empathetic, caring and embodying responsible citizenship, especially as conveyed through the company's brand communications.

An example is a Facebook post put out by SIA on 6 May 2020 in relation to the redeployment, with the heading *We are in This Together*:[1]

> ### We are in This Together
>
> Our thanks go out to frontline heroes such as those in healthcare and transport for their hard work and commitment during this Covid-19 outbreak. To support these amazing people, our Care, Transport and Contact Tracing Ambassadors are joining them on the ground. Together, we will emerge from this stronger because #WeAreInThisTogether. Read more about their experiences at https://bit.ly/2W8wj48.

The title of the post, not too surprisingly, taps a phrase (including its derivatives) and sentiment that were not uncommon, but have become even more resonant because of the pandemic. Note that the phrase does not merely function as the title – the word "together" is used three times in the short post (four if we include the accompanying video clip) – but also reappears as a hashtag in the body copy. As metadata tags, hashtags

are often used by marketing and brand professionals to encourage audience engagement and make it easier for those interested to search for information revolving around a specific theme or topic. However, given the stock phrase that is hashtagged, the specificity of information is unlikely to be the concern. Instead, as intertextual markers that point to other occurrences of the tagged item, hashtags simultaneously signal the currency and prevalence of the tagged item (see also Zappavigna, 2015). The intertextuality here, indeed, explicitly situates and enacts the brand as connected and part of a larger, arguably near-global, community dealing with the pandemic, as indexed by the inclusive "we". As a rallying call and commitment of sorts, the phrase taps into a global(ised) discourse of togetherness and associated sentiments that have arisen due to the commonality of (negative) experience caused by the pandemic. The post hence serves to discursively enact a responsible and caring (corporate) citizenship that plays its part in solidarity with a larger collective and contributes to the fight against the pandemic.

Such meanings of socio-collectivity are also constructed visually in and through the video clip accompanying the Facebook post. The 24-second clip, accompanied by pacey music that can be described as hopeful and inspirational, is essentially a sequence of thirteen frames, with the first twelve each containing one still image, followed by a final collage. The first three images are documentary in nature (Machin, 2004; Ng, 2014; also see Kress & van Leeuwen, 2006, pp. 45–78 on narrative representations), showcasing members of cabin crew at work in their places of redeployment, such as hospitals (with captions indicating the specific hospitals, accentuating the images' photographic function of documenting material "reality") and an unnamed but recognisable bus interchange setting. As is natural for snapshots of this nature that putatively capture real happenings, they do not contain any direct gaze at the viewer. These three images take up about 5 seconds before giving way to the rest of the clip with images that are more symbolically laden (Machin, 2004; Ng, 2014). The symbolic images are essentially a sequence of nine portrait shots, each showcasing a redeployed employee holding a sign, looking directly at the viewer. Each sign has one word on it.

This is followed by a final collage consisting of nine smaller images arranged in a three-by-three configuration. The shot movement is such that the viewer first sees a single image before the camera zooms out to reveal that the image actually is part of the collage of nine (with the first image occupying the bottom right corner). These nine images are very similar to the preceding nine portraits – except that in the collage, all nine represented participants are masked, unlike in the earlier individual shots where they were not. In fact, it is only in this final frame that the individual words on the signs held up by the represented participants come together to form the sentence *WE ARE JOINING THE FIGHT BECAUSE WE'RE STRONGER TOGETHER*. This message of solidarity and community is verisimilarly reinforced here because it is only

in concert that the individuals collectively make the message clear. The symbolic-affective force of the communications is heightened through the sequential flow of the 24-second clip. While the video begins with a depiction of staff redeployment in the first three images (5 seconds), this factual characterisation then becomes the basis on which the key affective messaging is performed – specifically to do with (associating the SIA brand with) responsible citizenship, solidarity, community and support, as well as associated attributes indexing a motivated, action-oriented affect that steers oneself to join the fight alongside others.

The very collage design of the final shot helps to convey the message of socio-collective unity, obligation and solidarity. Visually, while each of the nine individuals is framed within his or her own box, all nine are within a larger frame with a thicker border (with a motif drawn from the design of SIA's iconic cabin crew uniforms, and hence a visual marker of SIA brand identity). Note that the nine small frames are marked by a sense of equivalence and symmetrical composition, being of the same size, with the represented participants positioned at the same flat, frontal angle and with plain, decontextualised backgrounds. The collage hence constitutes a classificational structure with a "covert taxonomy" (see Kress & van Leeuwen, 2006, pp. 79–87), where it is not so much the individual identities of the represented participants that matter; rather, what is important is that the nine individuals (also referred to as *Ambassadors*, and therefore with a representative role) constitute the SIA collective and are metonymic of the SIA brand – a brand that, as discussed earlier, supposedly embodies traits of socio-ethical citizenship and a can-do readiness to contribute to the fight.

At the same time, while the "visual" design of the video clip enacts an SIA collective, the linguistic text of the body copy also situates this within an even larger collective and sociality, as discussed earlier – pointing, therefore, to the differential functions of the linguistic and visual elements, as well as how they work together to enact an overall sense of collective affinity and ownership at different levels. Of course, the linguistic text shown on the held signs in the final collage frame also contributes to this, since the sentence formed is essentially a derivative as well as extension of the hashtag in the post. That the extended final collage frame on its own takes up the most time of any frame in the video clip (8 out of 24 seconds) – and accompanied with direct gaze characteristic of the affective work of constructing pseudo-relations with the audience (Kress & van Leeuwen, 2006) – makes palpable the symbolic-affective brand communications taking place.

While the meanings semiotised are on the one hand collegial and constructive of an affective sociality, they are simultaneously expressive of a more determined, proactive, even aggressive, affective orientation. The use of the martial metaphor in SIA's Facebook post plays a significant role in driving such meanings. With the *outbreak* of the pandemic (akin to war), the redeployed actors are represented as joining the *FIGHT* (as

shown in the message formed in the final frame of the clip) by joining those who are already at the *frontline*, *on the ground*. It is interesting that the sequence of the clip shows each of the nine actors without masks when depicted individually, but all masked up in the final frame, as if "armed" and geared up for the fight and most ready and potent as a collective force. Hence, alongside the linguistic metaphorical expressions, the visual elements depict the "fighters" as a collective body akin to military troops and help reinforce the meanings of solidarity and shared purpose and action. Of course, since those (already) fighting on the ground are *heroes*, whatever aggressive potency aligned with this force is to be understood not so much as hostile, but heroic. And as the redeployed actors, as metonymic of the brand, join in the fight, they are also represented as part of this heroic endeavour, actively playing a role in a worthwhile battle. The inspirational-aspirational overtones to do with a heroic spirit and action are palpable here and imbues the brand with a kind of altruistic proactiveness directed towards the collective or common good, with the brand communications enacting meanings that are less conventional of consumer branding (especially for "premium" carriers) and its tendency to tap the tropes of self- or customer-directed pleasurable distinction. Significantly, the meanings of sociality and obligation become extended, translated and concretised here in the expression of an affective orientation of determined volition and action that is supposedly actualised in the interest and for the well-being of the collective.

The theme of an altruistic heroism is similarly drawn upon by CPA in a Facebook post published in conjunction with Mother's Day 2020:[2]

> Your heroes, our heroes
>
> #weloveyou3000
>
> Not all heroes wear capes – our mums put in an extraordinary amount of work every single day! From the pilots to the teachers, the cabin crew to the doctors, the stay-at-home superstars to the engineers and everyone in between, we're sending a special "Thank You" to all the mothers who keep us going. You are our heroes, and we'll always be grateful for everything that you do.[3]

Discursively framed as a thank you note to mothers, the post's affective force is realised by tapping the audience's common experience as recipients of maternal love, care and commitment. It draws addressees into the same space of gratitude to form a collective through the use of inclusive plural pronouns in acknowledging the sacrifice of *our mums* and *our heroes* as those *who keep **us** going*, and to whom *we'll* ways *be grateful*. In being discursively positioned this way, addressees are enjoined and steered to marshal and invest an attitude of gratitude into the undertaking led by the airline, with addressees now positioned as part of the same CPA collective or at least alongside it in expressing gratitude.

Addressees' affective labour is then appropriated as part of this communicative work of expressing a particular emotional orientation, but also in enacting the CPA brand as a positive one, being imbued with an affective disposition of gratitude and appreciation, which would be particularly resonant at a time of pandemic-related suffering and impact.

This communicative work of aligning addressees with the brand takes place even with the titling of the post (i.e. *Your heroes, our heroes*), where a sense of equivalence is textured between the brand and its audience – that is, the audience's heroes (***Your heroes***) are also the brand's (***our heroes***) – forging commonality and affinity between the brand and audience. In fact, by stating the audience's position first (i.e. *Your* before *our*), the brand is discursively represented as coming around to affirm the audience's perspective, even though what is ultimately textured is supposedly one collective with the same affective disposition. The video clip accompanying the text copy affirms this equivalence in an even more obvious manner. Just 5 seconds long, the clip essentially contains an animated image that remains largely the same throughout the entire duration of the clip. The only element that changes in the image involves moving animation pertaining to the bold and large linguistic text in white occupying the top left side of the image, with the text changing from *YOUR HEROES* to *OUR HEROES* (see Figure 7.1).

The change is effected by having the *Y* at the beginning of *YOUR* blink once and disappearing, with the remaining -*OUR* sliding leftwards to take the space freed up by the disappearance of *Y*. As the main – in fact, only – visual "movement" taking place in the clip, the animated

Figure 7.1 Closing frame of CPA Facebook video clip.

sequence playing on pronouns commands salience and visually reinforces the subsuming and appropriation of the audience's supposed sentiments within a brand community that supposedly values the same sentiments and attributes.

Like the use of the hashtag in the SIA post discussed earlier, the CPA post employs the same intertextual device. In this case, the hashtag *#weloveyou3000* references a key phrase ("I love you 3000") used in the immensely popular Marvel movie *Avengers: Endgame* (2019), and indexes the Marvel Cinematic Universe and its world of superheroes (see e.g. McSweeney, 2018), as is also achieved by the reference to *capes* in the body copy. Such moves are of course deliberate given the heroic theme of the Facebook post, but also strategic in tapping one of the world's biggest pop-cultural phenomena today, drawing on at least some of the goodwill that Marvel fans may have for the movie franchise and its associated fun, cool and feel-good sentiment, and enacting a brand identity that is fun and contemporary. They also enhance the affinity-forging role of such brand communications and strengthen the affective force of the messaging, since the use of the phrase in the film marks some of its most touching moments (associated with the sacrificial death of Tony Stark/Iron Man, one of the franchise's key protagonists). The nod to major resonant pop-cultural elements can be seen as an appropriation of cultural resources and the affective investments of pop-culture consumers in these resources, pointing to the co-constructedness of the brand.

Clearly, apart from deploying affective meanings and forging affective connections, such communications also contribute to invoking values to do with a self-sacrificial (maternal) altruism, care and love in service of the family/children and community and society – and in expressing gratitude and appreciation, also valorising such attributes. In addition, the post taps a (super)hero trope that represents such sacrifice and efforts as extraordinary, noble and heroic. Similar to the SIA post, then, the CPA post is imbued with an inspirational-aspirational tenor that celebrates the kind of self-determined, empowered subjectivities that take the form of altruistic action directed towards the well-being of others. Such a branding orientation should of course be understood as strategic within a pandemic context, in its allusion to the difficult times that people are facing and the "heroic" care and relief they may receive.

However, while it is specifically mothers who are thanked and celebrated here, we should also note that among the stated occupational or second roles that mothers simultaneously play, pilots and cabin crew are included alongside others (e.g. teachers, doctors and engineers) who would more conventionally be thought of as playing socially important or "essential" roles. Moreover, visually in the image (apart from the linguistic text discussed earlier), it is the flight attendant that is the most salient, by dint of its biggest size, colour and near-centre position near the bold text. The next most salient in terms of physical size are the pilot and doctor – though, we should also note that the doctor's green attire blends

in somewhat with the predominantly green background of the image, which moderates this salience, while the pilot's mid-air suspension and blue uniform increase salience. In addition, out of the six occupations/ roles featured visually, only the flight attendant and pilot's faces are uncovered and fully seen, revealing recognisably smiley countenances (while the others don either a superhero eye mask or surgical mask that partly obscures the face), which are a characteristic feature contributing to the work of constructing (pseudo-)relations as part of branding. Hence, even as the text copy makes out the post to be about expressing gratitude within a context of heroic sacrifice and commitment, the visual text simultaneously situates pilots and cabin crew, as quintessential representatives of the brand, within this heroic space and ascribes to them a heroic importance seemingly on par with the likes of doctors, teachers and engineers as people who are feted by virtue of their contributions to society. And even though the copy declares that *[n]ot all heroes wear capes* and emphasises the quotidian nature of this heroism, the visuals play up this (super)heroism by depicting most of the characters – certainly the pilot and flight attendant – in caped attire. While the visual semiotisation could be seen as an implicit acknowledgement of the "heroic" work and sacrifices of the airline's employees in a time of a pandemic (with the text therefore also serving an internal-branding function), it simultaneously imbues the members of the organisation, as metonymic of the corporate brand, with particular brand attributes as part of the broader, strategic work of enacting brand identity.

Discussion

To a significant degree, the findings of the analysis affirm trends and developments in branding, particularly the observation that much of contemporary branding is premised on affective messaging and management. Mentions of products and services offered are downplayed, giving way to enactments of symbolic-affective meanings and relations. In the context of the pandemic, this is partly driven by the fact that some products and services may have become less attainable or desirable due to various social restrictions and their effects on consumption; this is certainly the case for the airline industry due to severe travel restrictions, further reducing the importance attached to material elements and benefit.

Yet, deploying an affectively driven approach to branding would also be linked to how forging affinity and constructing a feel-good affective sociality around the brand are likely to be more resonant and effective strategically, especially given the common experience of adversity faced by consumer-audiences and business organisations alike in a pandemic context. In a perverse way, the pandemic actually lends credibility to business organisations and brands when they try to relate empathetically to consumer-addressees and to offer relief, if largely or only symbolically,

affectively and/or vicariously – a strategy that might otherwise come across as somewhat disingenuous in a non-crisis context. Such an approach also allows business organisations to acknowledge, celebrate and express gratitude for the help and service rendered by others and for which they might themselves also be recipients. Brands can then position themselves as affected, suffering and/or with some degree of vulnerability alongside consumer-addressees, which then strengthens the symbolic significance and affective force of the brands stepping up to help. As we have seen, the trope of (super)heroism can be effectively leveraged for this purpose, acknowledging challenges, suffering and need, but also offering hope, care and relief – represented as a form of heroic action – and conveyed through uplifting, inspirational-aspirational brand communications.

Apart from deploying the (super)heroic trope, the affective work of the brand communications can also be discursively achieved through semiotic features and devices such as intertextual referencing, personal-pronominal usage, metaphor, visual enactment of direct gaze, and layout features to signal collectivity, among others. Hashtags, for instance, while a common marketing device to boost engagement, can function inter-textually to draw on other discourses and appropriate their associated values, meanings and affective attitudes for brand identity construction, as well as to enact an affective sociality and construct brand-addressee relations by positioning the brand as part of a particular collectivity. And while the different semiotic modes often work together to convey similar meanings and perform similar affective work, their different affordances mean that different modes can also function separately to convey differentiated, even if complementary, meanings. As the CPA post shows, it is visual properties such as salience, spatial positioning and direct gaze that ascribe (more) importance to the airline's pilots and flight attendants in a way that the linguistic copy does not – though the two sets of meanings are complementary in performing the desired brand identity.

Ultimately, it would be reasonable to see an evolved discursive-ideological-cultural landscape that has developed in the context of the pandemic as fuelling an increased emphasis on the performance of affective meanings to do with togetherness, empathy, care and mutuality. If a dominant strategy of airline branding, particularly of "premium" carriers, has been to invoke meanings of a self-deserved privilege, distinc-tion and well-being, then what we may be witnessing as a result of the pan-demic is arguably a move from a neoliberal-oriented focus on (fulfilling) personal desires and aspirations, often expressed and actualised in the form of particular individualised consumption attitudes and practices, to brands that are represented as valuing communal sociality and affectively oriented towards social responsibility and obligation. In some ways, such brand dispositions remain neoliberal-oriented in their valorisation of an empowered affective subjectivity that putatively leads to progress, well-being and fulfilment. Moreover, branding in a pandemic context

continues to be strongly premised on affective work, and continues to involve activating and appropriating (consumer) emotions, desires and aspirations, which can be seen as parasitic behaviour if directed towards self-seeking objectives. That said, this neoliberal agency and its associated affective work now seem to be directed less towards individual and self-fulfilment and success and more towards the collective interest, which is certainly an improvement over some of the branding orientations previously observed.

Conclusion

Embedded within the cultural milieu, branding is an important cultural process subject to the dominant discursive-ideological regime in which it takes place, leading to the co-construction of brands as cultural products that speak to socially situated consumer-audiences *qua* citizen-actors. The COVID-19 pandemic is arguably a crisis that has reshaped our world, existing paradigms of thinking, and consumption attitudes and practices, resulting in the performance of brand identities that are affectively oriented towards the meanings and values of togetherness, solidarity, empathy, care mutuality and social obligation. Such shifts can be said to be positive; if branding and brand communications, as a kind of global ideoscape (Askegaard, 2006), have a structuring influence on consumer-addressee subjectivity, then cultivating sensibilities that ascribe importance to social obligation and the collective interest (and to the empowered, "heroic" agency oriented to these) can help to develop a social ethos based on healthier and more ethical intersubjective relations, providing a basis for new or rehabilitated forms of identities, relations and practices to emerge.

There is of course the possibility that this affective identity work taking place as part of branding remains simply semiotic performances that will eventually revert with the recession and passing of the pandemic, and that this expression and management of organisational and consumer affect remain largely a manipulative business strategy. After all, businesses and corporate actors have had a patchy history of duplicitousness that poses a challenge to public trust in the sphere of the market. However, crises are also opportunities, and – unfortunate as it is – it is in this that the pandemic presents an opportune moment to fashion a more responsible and ethical socio-marketplace where the material practices of market actors match the semiotics of branding so intentionally and strategically chosen and deployed. Consumer-addressees need to continually scrutinise brands and hold them to their word, so that brands truly become responsible corporate citizen-actors and not merely profit-seeking entities that engage in affective-semiotic performances (in the superficial sense) only for pecuniary business motives.

Notes

1 www.facebook.com/singaporeair/videos/381338282844079
2 www.facebook.com/cathaypacificHK/videos/314848386183967
3 While the post was published in both Chinese and English (and only in English for the accompanying video clip), only the English version is analysed for the purpose of this article. Note that although there is some ambiguity in the English copy – the pilots, teachers, cabin crew, doctors, engineers and "stay-at-home superstars" mentioned could be interpreted as those sending the thank-you message – the Chinese version of the post makes clear that these are the roles/occupations of the mothers being thanked.

References

Allen, C. T., Fournier, S. & Miller, F. (2008). Brands and their meaning makers. In C. P. Haugtvedt, P.M. Herr & F.R. Kardes (Eds.), *Handbook of consumer psychology* (pp. 781–822). Psychology Press.

Arvidsson, A. (2005). Brands: A critical perspective. *Journal of Consumer Culture*, 5(2), 235–258.

Askegaard, S. (2006). Brands as a global ideoscape. In J. E. Schroeder & M. Salzer-Mörling (Eds.), *Brand culture* (pp. 91–102). Routledge.

Aspara, J., Aula, H.-M., Tienari, J. & Tikkanen, H. (2014). Struggles in organizational attempts to adopt new branding logics: The case of a marketizing university. *Consumption Markets & Culture*, 17(6), 522–552.

Balmer, J. M. T., & Gray, E. R. (2003). Corporate brands: What are they? What of them? *European Journal of Marketing*, 37(7/8), 972–997.

Balmer, J. M. T. (2012). Strategic brand alignment: Perspectives from identity based views of corporate brands. *European Journal of Marketing*, 46(7/8), 1064–1092.

Butler, J. (1999). *Gender trouble: Feminism and the subversion of identity* (10th Anniversary ed.). Routledge.

Casprini, E., Melanthiou, Y., Pucci, T. & Zanni, L. (2020). Managing founder-based brand identity during succession. *Journal of Brand Management*, 27(1), 1–14.

Csaba, F. F., & Bengtsson, A. (2006). Rethinking identity in brand management. In J.E. Schroeder, & M. Salzer-Mörling (Eds.), *Brand culture* (pp. 118–135). Routledge.

Eckhardt, G. M. (2015). The cultural approach to branding. In J.E. Schroeder (Ed.), *Brands: Interdisciplinary perspectives* (pp. 107–115). Routledge.

Elliot, R., & Wattanasuwan, K. (1998). Brands as symbolic resources for the construction of identity. *International Journal of Advertising*, 17(2), 131–144.

Flowerdew, J. (2004). The discursive construction of a world-class city. *Discourse & Society*, 15(5), 579–605.

Fournier, S. (2009). Lessons learned about consumers' relationships with their brands. In D. J. MacInnis, C. W. Park & J. R. Priester (Eds.), *Handbook of brand relationships* (pp. 5–23). M.E. Sharpe.

Gobé, M. (2001). *Emotional branding: The new paradigm for connecting brands to people*. Allworth Press.

Goldman, R., & Papson, S. (2006). Capital's brandscapes. *Journal of Consumer Culture*, 6(3), 327–353.

Gylling, C., & Lindberg-Repo, K. (2006). Investigating the links between a corporate brand and a customer brand. *Journal of Brand Management*, 13(4/5), 257–267.

Harvey, D. (2005). *A brief history of neoliberalism*. Oxford University Press.

Holt, D. B. (2004). *How brands become icons: The principles of cultural branding*. Harvard Business School Press.

Kapferer, J.-N. (2008). *The new strategic brand management: Creating and sustaining brand equity long term* (4th ed.). Kogan Page.

Klein, N. (2000). *No logo*. Flamingo.

Koller, V. (2009). Corporate self-presentation and self-centredness: A case for cognitive critical discourse analysis. In H. Pishwa (Ed.), *Language and social cognition: Expression of the social mind* (pp. 267–287). Mouton de Gruyter.

Kress, G. (1985). Ideological structures in discourse. In T. van Dijk (Ed.), *Handbook of discourse analysis* (pp. 27–42). Academic Press.

Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design*. Routledge.

Lazare, L. (2020, 25 March). United Airlines unveils new brand message and logo for coronavirus era. *The Business Journal*. www.bizjournals.com/bizwomen/news/latest-news/2020/03/united-airlines-unveils-new-brand-message-and-logo.html

Leitch, S., & Richardson, N. (2003). Corporate branding in the new economy. *European Journal of Marketing*, 37(7/8), 1065–1079.

Machin, D. (2004). Building the world's visual language: The increasing global importance of image banks in corporate media. *Visual Communication*, 3(3), 316–336.

Machin, D. (2007). *Introduction to multimodal analysis*. Bloomsbury.

Machin, D., & Mayr, A. (2012). *How to do critical discourse analysis: A multimodal introduction*. Sage.

Manning, P. (2010). The semiotics of brand. *Annual Review of Anthropology*, 39(1), 33–49.

McSweeney, T. (2018). *Avengers assemble!: Critical perspectives on the Marvel cinematic universe*. Columbia University Press.

Muniz, A. M., Jr., & O'Guinn, T. C. (2001). Brand community. *Journal of Consumer Research*, 27(4), 412–432.

Ng, A. (2020, October 8). Over 40 airlines have failed so far this year – and more are set to come. *CNBC*. www.cnbc.com/2020/10/08/over-40-airlines-have-failed-in-2020-so-far-and-more-are-set-to-come.html

Ng, C. J. W. (2014). 'We offer unparalleled flexibility': Purveying conceptual values in higher educational corporate branding. *Discourse & Communication*, 8(4), 391–410.

Ng, C. J. W. (2016). 'Hottest brand, coolest pedagogy': Approaches to corporate branding in Singapore's higher education sector. *Journal of Marketing for Higher Education*, 26(1), 41–63.

Ng, C. J. W. (2018a). Constructing the ideal organization: Metaphor in higher education brand communication. In J. Pelclová & W. Lu (Eds.), *Persuasion in public discourse: Cognitive and functional perspectives* (pp. 207–223). John Benjamins.

Ng, C. J. W. (2018b). Performing brand identity: Situating branding in discursive-ideological landscapes. *Consumption Markets & Culture*, 21(2), 147–170.

Pringle, H., & Field, P. (2008). *Brand immortality: How brands can live long and prosper*. Kogan Page.

Schroeder, J. E. (2011). Brand culture. In G. Ritzer & J.M. Ryan (Eds.), *The concise encyclopedia of sociology* (pp. 41–42). Wiley-Blackwell.

Shi, L. (2019) Conceptualizing the roles of founder personality traits in startups' construction of brand Identity. *Journal of Promotion Management*, *25*(1), 65–81.

Steger, M. B. (2009). *Globalisms: The great ideological struggle of the twenty-first century* (3rd ed.). Rowman & Littlefield.

Thurlow, C. (2020). Touching taste: The classist intersections of materiality, textuality and tactility. *Multimodal Communication*, *9*(2), 1–16.

Thurlow, C. (2021). Dissecting the language of elitism: The "joyful" violence of premium. *Language in Society*, *50*(1), 125–152.

Thurlow, C., & Jaworski, A. (2006). The alchemy of the upwardly mobile: Symbolic capital and the stylization of elites in frequent flyer programmes. *Discourse & Society*, *17*(1): 99–135.

Wang, J. (2008). *Brand new China: Advertising, media, and commercial culture*. Harvard University Press.

Wetherell, M. (2012). *Affect and emotion: A new social science understanding*. Sage.

Zappavigna, M. (2015). Searchable talk: The linguistic functions of hashtags. *Social Semiotics*, *25*(3), 274–291.

8 Defamiliarise to engage the public

A multimodal study of a science video about COVID-19 on Chinese social media

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Introduction

The COVID-19 pandemic as a massive global health crisis has had an unprecedented impact on how we live and communicate. Scholars across the world have emphasised the need to pay attention to communications and interactions in and about the pandemic (Adami et al., 2020; Bavel et al., 2020). The discursive construction of the pandemic reality, therefore, has become an important issue for discourse studies. For instance, various studies utilising discourse analytic approaches have been done to understand the semiotics of mask wearing, media representations of the coronavirus, internet memes and urban public signs about the pandemic, and government communication about the pandemic (Jones, 2021). Institutional and news media denominations of COVID-19 have also been investigated in relation to how their meaning-making practices can have varied social and ideological implications (Prieto-Ramos et al., 2020). The extensive coverage of the pandemic discourse, however, has largely neglected science communication in the pandemic, despite the fact that science communication regarding behavioural recommendations and public health messaging is critical to reduce the spread and impact of COVID-19 (Bavel et al., 2020).

Within the domain of science communication, online science communication about the pandemic is an area worth investigating. For one, digital technology creates new spaces at low cost for communicating science with multimodal resources (e.g. images and animations) (Zhang, 2019). Also, in the age of social media, large amounts of user-generated information about science are constantly being uploaded onto the internet (Abrams & Greenhawt, 2020). This means that the challenge of competing with misinformation is always present in the domain of online science communication, with such misinformation often accompanying the embrace of new spaces on social media. The challenge is particularly significant for online science communication in the pandemic, with Zarocostas (2020)

noting how the pandemic has been accompanied by a tsunami of misinformation going viral – an "infodemic".

With the threat of misinformation constantly present, there is a need to examine how online science communication can be communicated impactfully. This chapter thus sets out to utilise multimodal discourse analysis to examine a popular science video available on Chinese social media platforms, using the rhetorical strategy of defamiliarisation as our focus. More specifically, we aim to investigate how semiotic resources function to operationalise defamiliarisation in a multimodal science communication video about the COVID-19 pandemic.

In what follows, we expand on our justification on why science communication in the pandemic is worth investigating. We then describe the online media environment for science communication, before discussing why there is a need to focus on the multimodal potential of semiotic resources used in science communication videos. The rhetorical strategy of defamiliarisation is then discussed before the data and analysis are presented. We then discuss the implications for the use of such a strategy for facilitating the communication of scientifically accurate and timely information amidst the "infodemic" of communicating the science about COVID-19.

Science communication

Science communication in the pandemic

Science communication is considered as a "preventive tool" for the pandemic (Matta, 2020). Effective science communication is critical for the public to understand the basic features of the coronavirus. Such understanding is crucial to ensure awareness of the viral threat and facilitate willingness to follow proper health protocols and take on recommended and required behaviours to manage the pandemic. An informed public may also play an important role in preventing infection and reducing the spread of the virus (Bavel et al., 2020; Szmuda et al., 2020). Therefore, growing attention has been directed to science communication in times of crisis (O'Hair & O'Hair, 2021). While there have been a significant number of studies focusing on providing guidelines about how science can be effectively communicated during the pandemic (e.g. Goldstein et al., 2020; Matta, 2020), studies concerning science communication about the pandemic that could help form the basis of such guidelines are limited.

In tandem with the demand of science information about the pandemic, there has been a rise in misinformation, fake news and conspiracy theories about the pandemic (Bavel et al., 2020; Matta, 2020). Such an information environment has brought challenges to science communication in the pandemic. Misinformation might not only confuse the public but also contribute to the public's distrust of scientific evidence and foster

doubts about the rationale for required behavioural changes such as social distancing and mask wearing (Goldstein et al., 2020).

Science communication on social media

With the ubiquity and ease of online access, social media has become a major venue for science communication. Such a change has meant that the transmission of science information is no longer the "one-way flow of information from the scientific sphere to the public" characteristic of traditional ways of communicating science (Perrault, 2013, p. 14). Rather, digital media dissolves the boundaries between the authority and the public, placing both and their facility to channel information on an equal footing (Machin & Polzer, 2015), with such a change potentially backgrounding and rendering less effective formal styles of authority-to-public seen in traditional science communication.

Such a blurring of the boundaries between the spheres of science and the public in a digital media context has resulted in science communication being turned "inside-out" (Trench, 2008). Social media, in particular, allows the public to generate data and share information about scientific issues. It thus shapes a type of citizen science communication in which a decentralised, collaborative and network-based approach is developed for science communication (Kar, 2016). Thus far, studies about science communication on social media have mainly focused on how decentralisation is shaping new communication norms. For instance, Zhang (2019) has observed how online science news has evolved from a traditional news article design to an information consumption design that integrates social media posts into the article. Such appropriations of social media discourse styles into traditional discourse reflect a dynamism in online science communication that render such communication material worth investigating.

Science communication videos

Along with the development of social media is the rise in the consumption of online videos. In such a context, videos have become an increasingly essential form of science communication (León & Bourk, 2018). The multimodal affordances of videos offer researchers new possibilities for engaging the public with science. For instance, images can explain science in ways that are not possible in verbal communication (Philipsen & Kjærgaard, 2018). Given the potential of videos for engaging the public with science, growing attention has been directed to the study of online science videos. Scholars from the field of science communication have investigated the history (León & Bourk, 2018), classification (Kousha et al., 2012), production (León & Bourk, 2018) and consumption (Welbourne & Grant, 2016) of online science videos. These investigations have revealed that resources in online videos such as visual

displays (both static and dynamic images), animation and music function importantly to engage the public and explain obscure scientific knowledge (León & Bourk, 2018). It is generally agreed in science communication that online science videos should be visually attractive (León & Bourk, 2018), and rhetorical strategies used effectively through the use of multiple semiotic resources for recontextualising scientific knowledge (Luzón, 2019). Studies into the discourse features of online science videos, however, focus mainly on their linguistic features (e.g. Mattiello, 2019; Scotto di Carlo, 2014). The rich and complex meaning construction with verbal and non-verbal resources in science videos deserves more attention (Luzón, 2019).

Theoretical approach

Defamiliarisation as a rhetorical strategy and social semiotics

Defamiliarisation (Shklovsky, 1917/2017) is a rhetorical strategy often used in modern communication (Iversen, 2016) to make ordinary and familiar objects look strange and different. The effectiveness of this strategy lies in how it guides attention and invokes affective involvement as demonstrated in neuroscience (Bohrn et al., 2012). This technique of "making strange" functions to compel the viewer "to examine their automated perceptions of that which is so familiar that it seems natural and so unquestionable" (Bell et al., 2005, p. 151; see also Iversen, 2016). Because of the effectiveness of this strategy, it makes sense to examine how it manifests in multimodal discourse. However, the actual realisations of these techniques in multimodal discourse remain largely unexplored. As such, in this chapter, we propose an approach that links the concept of defamiliarisation with multimodal strategies that can be used to frame and position subjects and events in ways that makes viewers re-examine what seems natural and unquestionable.

Online science video is a complex multimodal artefact. To investigate the multimodal meaning construction of the video, we adopt a social semiotic approach to multimodality. Social semiotic theory is originated from Systemic Functional Linguistics, which takes language as a resource for meaning construal in social interactions (Halliday, 1978). The social semiotic principles for language analysis have been extended to the studies of other semiotic modes such as image (Kress & van Leeuwen, 2006) and video (O'Halloran et al., 2014). A social semiotic approach to multimodality is based on the assumption that the meaning and usage of semiotic resources is shaped by and shapes the social context (Kress & van Leeuwen, 2001).

Language and other types of semiotic resources have the potential to realise simultaneously three types of meaning known as "metafunctions": (1) The ideational function relating to experience and logical relations in the world; (2) the interpersonal function dealing with

the enactment of social relations; and (3) the textual function organising the ideational and interpersonal meanings into coherent and cohesive units of meaning.

In this chapter we propose a conceptualisation of defamiliarisation utilising a metafunctional approach. Essentially, such a conceptualisation looks at how semiotic resources in an online science video function to draw attention to particular constructions of meaning and heighten affective response.

Data and method

This study focuses on one of the most influential videos for communicating COVID-19 to the public on Chinese social media. The video is entitled "Everything about the novel coronavirus pneumonia" [关于新冠肺炎的一切][1], and was made by PaperClip, a private company founded for the purposes of producing videos to communicate science to the public on Chinese social media. The video lasts for slightly over 10 minutes (10:18) and was released on 2 February 2020, when the outbreak was significantly impacting China in terms of severity. It was published through the company's social media accounts on different Chinese social media platforms such as Bilibili, Weibo, WeChat and Zhihu. It was also shared on the social media accounts of official media such as Xinhua News Agency and China Central Television (CCTV). The video went viral on Chinese social media, and within one day, was viewed over 100 million times.[2] At the time of data collection in May 2020, it was the most viewed video about COVID-19 on the Bilibili platform until PaperClip's account was deactivated for political reasons.

The video was analysed manually, according to the three metafunctions; where relevant, interactions of metafunctional meaning were highlighted. Given the constraints of space, it is not possible to provide an exhaustive analysis of all the modalities and semiotic resources used in the video. Particular focus is placed here on the use of the selected semiotic resources that are implicated in the utilisation of defamiliarisation as a rhetorical strategy for communicating science news about COVID-19 to the general public.

In the following section we first discuss how the video's overall structure is organised to present science news about COVID-19 to the viewer, with specific focus on how the juxtaposition between abstract and concrete information functions to draw attention to the contrast between constructions of scientific and everyday meanings. We then use the concept of modality to evidence how such a juxtaposition also takes place with regard to the presentation of truth values, showing the execution of defamiliarisation as a rhetorical strategy in action. The section then ends with an examination of how ideational and interpersonal meanings of authority, nostalgia and unexpectedness work with this juxtaposition between abstract and concrete to manifest defamiliarisation in the video.

Analysis

Video structure

Overall, the video's structural organisation follows a problem-cause-solution-consequence-resolution pattern (Table 8.1). It begins with a self-introduction by the video producer, delivered in voice-over narration to video clips of CCTV news presenters (see also discussion on voice of authority and nostalgia below). This is followed by a lead-in that introduces the problem, namely the pandemic, to the viewer. From thereon, the information presented in the video is categorised into four themes: Infection, Spread, Mask and Courage. The first two themes of Infection and Spread draw viewers' attention to the causes of the pandemic, focusing on how people get infected and how the virus is spread.

Table 8.1 Video structure

Stage	Theme	Description
Introduction		• Self-introduction by the video producer
Lead-in: Introducing the problem		• Background to the pandemic
Cause: Mechanism for infection	Infection [感染]	• Description of the biological mechanism of the infection • Description of mucosae as sites of infection • Explanation of coronavirus infection process • Presentation of timeline of outbreak in Wuhan
Cause: Why and how the virus spreads	Spread [传播]	• Presentation of cases about the spread from research articles • Explanation of spread in real life • Explanation of diffusion
Solution: Non-pharmaceutical intervention	Mask [口罩]	• Explanation of functions of masks • Description of effectiveness of different types of masks • Recommendation of hand washing as a preventive measure
Consequence: What to expect	Courage [勇气]	• Calculation of virus death rates • Explanation of the virus' basic reproduction number • Evaluation of the seriousness of the pandemic relative to other dangers that can occur in life
Resolution		• Encouragement not to fear the pandemic

The next theme, Mask, describes non-pharmaceutical interventions as solutions to reduce the spread of the disease. The last theme, Courage, discusses the number of deaths as a consequence of the pandemic, using the narrative of everyday dangers to frame these deaths as something not to be too fearful about. It exhorts viewers to be courageous and resilient.

Structurally, one feature shared by all four themes is that each theme displays an ideational shift from science to everyday life, from abstraction to reality. The first theme of Infection [感染] starts by introducing the biological mechanism of infection using animated visual displays of the infection process. These visual displays are rather abstract as they function to show how the spike protein structure of the COVID-19 virus allows for it to infect the human body. This scientific explanation is followed by the introduction of the body's mucosae as sites of infection. By showing real-life images of infected mucosae on different parts of human body, for example, the lips, the explanation shifts from abstract science to realistic examples that people are more familiar with and can relate to.

Similarly, the theme of Spread [传播] starts by reporting cases of the spread taken from research articles and then moves to explaining how the virus spreads in real life. The presentation of information taken from research articles takes the form of graphs cropped out from the papers themselves, for example. This evidences the scientific character of the information presented. From there, the spread of the virus is presented in a more concrete manner, using black-and-white video clips of Caucasian people conversing with virus droplets superimposed on the shot.

Subsequently, the theme of Mask [口罩] provides a scientific account of how masks function before showcasing various sorts of masks in use and their effects. The scientific account consists of extracts taken directly from research papers, with a screenshot of the entire first page of a research article used in one of the shots, for example. This is contrasted with a second part that shows the actual surgical masks discussed in the research papers, focusing on their different efficacy rates.

Finally, the theme of Courage [勇气] focuses on calculating death rates and explaining the basic reproduction number of COVID-19, both of which address the pandemic from a scientific perspective. This is done using a variety of abstract visual representations from tables summarising numbers to graphs showing the increasing spread of the virus. This last part ends non-scientifically by framing these death rates in the context of everyday life, arguing that daily life can also involve risk. This framing involves the use of dark humour where depictions of unpredictable accidents are employed to highlight how everyday life can involve equally dangerous situations. Seen in this light, the death rates seem less threatening and form the basis for the resolution in the video that encourages viewers to be courageous and resilient.

Modality

This juxtaposition of abstract science and concrete daily life can also be found in the use of modality in the video. Modality in visual communication is concerned with "realism" of the visual representation, which is developed out of the central values, beliefs and social needs of a particular community (Kress & van Leeuwen, 2006, p. 156). In the case of science communication to the public, the realism can be used to address how close the representation is to the reality because the closer the visuals are represented as to the reality, the more credible the message is in the visuals.

The analysis of modality here involves the use of six types of visual display that have been utilised for representing scientific and real-life information (Table 8.2). These different types of visual display were categorised using modality markers such as: (1) Colour, namely, the degree of saturation, differentiation and modulation; (2) contextualisation, specifically, the degree of the details of the background; and (3) representation, namely, the level of abstraction of the depicted reality (Kress & van Leeuwen, 2006).

The type of visual display with the lowest modality is the scientific image, which refers to micrographs, diagrams or figures that represent reality in abstract ways without context. For example, a micrograph, a photograph taken through a microscope or a drawing of an object as seen through a microscope, represents the object in ways that are much different from what people could see with their eyes. The video also displays many science texts (e.g. pages from research articles and technical reports) in animated form, first showing the document as a whole and then zooming into key information from the document. The resources of colour, light and layout are used to highlight key information from the documents, making the modality of animation (science text) higher than that of the scientific image. Animation is also used to illustrate various sorts of processes such as infection. But this type of animation is assigned with a higher modality value than that of animation for science texts because the representation is less abstract, with a variety of colours and shapes in use. Visual displays with a high modality value include black-and-white video clips, real-life images and colour video clips. All black-and-white clips used in the video are assigned the lowest modality value for non-scientific representations. The types of visual display with the highest modality are real-life images and colour video clips featuring real-life situations.

The modality pattern observed here, as mentioned previously, involves the juxtaposition of visual displays with low and high modality values. The temporal sequence of visual displays in the video is shown in Figure 8.1. It is evident in the figure that – following visual displays with a high modality value (6 in Figure 8.1) in the Introduction – each theme, for example Infection, Spread, Mask and Courage (as discussed in the section

Table 8.2 Types of visual display and modality

No.	Visual display	Example	Representation	Contextualisation	Colour
1	Scientific image		Abstract	Absent	Monochrome
2	Animation (science texts)		Abstract	Absent	Multiple colours
3	Animation (process simulation)		Biological pictorial details	Absent	Multiple colours
4	Black-and-white film clip		Pictorial details	Detailed background	Monochrome
5	Real-life image		Pictorial details	Detailed background	Rich colours
6	Colour video clip		Pictorial details	More detailed background	Rich colours
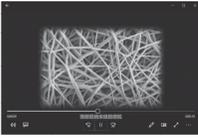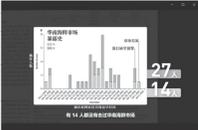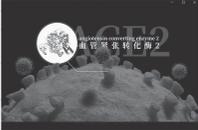
on the video's organisation structure above), begins with a segment featuring visual displays with a low modality value (1, 2 and 3 in Figure 8.1), before transitioning to a new segment featuring visual displays with a high modality value (4, 5 and 6 in Figure 8.1). For example, in the theme of Infection, animation (process simulation) (value 3) is used before real-life images (value 5). There is only one exception in the theme of Mask, where a video clip of CCTV news is used at the start of the segment introducing the theme. This clip presents a news interview with a well-known epidemiologist who functions as an authority figure commenting on the pandemic. However, the clip lasts for only 8 seconds and is followed by a 3-second black-and-white clip of a man wearing a mask, after which a significant amount of time (approximately 2 minutes) is devoted to scientific visual displays about the texture and function of masks.
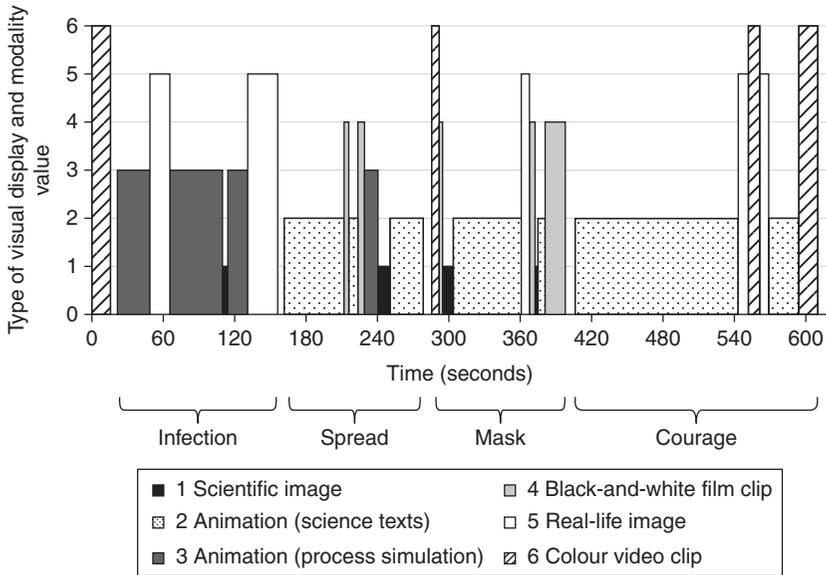
Figure 8.1 Temporal sequence of visual displays in terms of modality value.

The pattern of visual displays moving from science to everyday life is a defamiliarised way of information presentation in communicating science to the general public. In general, texts of popular science tend to emphasise proximity (León & Bourk, 2018) and start from everyday life to help the public become more familiar with the science topic (Myers, 2003). Online science news, for instance, uses images of everyday objects to build relationship and increase accessibility (Zhang, 2019). Online science videos also put viewers at the centre of the process, focusing on attracting viewers with information that has immediate relevance for them (García-Avilés & de Lara, 2018). In the analysed video, however, the presentation of scientific visual displays before images of everyday life goes against the norm of communicating science to the general public and can thus be considered a form of defamiliarisation.

Voice of authority and nostalgia

The operationalisation of defamiliarisation as rhetorical strategy also involves the manipulation of both intersemiotic and intertextual meanings, which we have labelled here as the voice of authority and nostalgia. The use of an old-fashioned television set in the Introduction acts interpersonally as an attention grabber, functioning textually as well to "provide coherence and cohesion to sequential images" (O'Halloran & Lim, 2009,

Shot 1	Shot 2	Shot 3	Shot 4	Shot 5	Shot 6	Shot 7
	Just like you [和你一样]	*PaperClip has been paying attention to this* [回形针也一直在关注着这场] *	*sudden outbreak of pneumonia caused by the novel coronavirus.* [突然爆发的新型冠状病毒肺炎]	*We will explain everything.* [我们会解释这一切]	*How the pandemic started, how the virus was spread and how people got infected.* [是如何发生、传播和感染的]	*Come on.* [来吧]
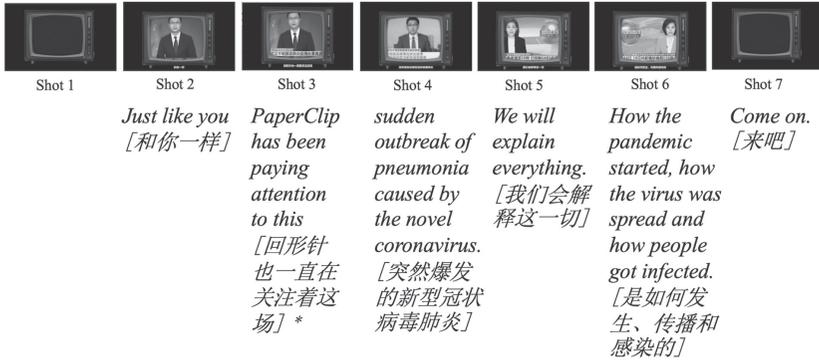
Figure 8.2 Use of the nostalgic TV set and CCTV news anchors to establish the voice of authority.

Note: * A typo in the script was amended to accurately reflect what the speaker said. The script on the screen reads "回形针也一直着关注这场", which should be "回形针也一直关注着这场".

p. 143) that appear on the screen (see Figure 8.2). These two meanings work interactively with the ideational meaning of the television set as a nostalgic object associated with a pre-pandemic era that connotes a time of calm, without the panic and uncertainty of an ever-evolving pandemic situation. Such an instance can be considered a form of defamiliarisation since the calm and stability instantiated via the use of the old-school television as a semiotic resource from the pre-pandemic era contrasts with the instability of the current pandemic era.

After this Introduction section, we have a lead-in section, where the problem of the pandemic is introduced. The old-fashioned television set used earlier begins to present a series of shots taken from previous news broadcasts from CCTV news on the pandemic (see Figure 8.2). The background, subtitles, logos and news anchors featured in these shots are easily associated with CCTV news for viewers in China. With CCTV's status as a state-owned news broadcaster under the authority of the Chinese Communist Party, the use of such shots would likely function to imbibe this lead-in section with an aura of authority. In addition, analysis of the subtitles and voice-over narration by the video producer shows how PaperClip positions itself as a voice of authority as well by utilising its attention to the pandemic to justify its ability to explain what is going on with regard to the pandemic (Shot 3 in Figure 8.2). Intersemiotically, we argue that PaperClip borrows from the authorial voice of CCTV by using shots from their pandemic broadcasts. Combined with the reassuring nostalgia of the old-fashioned television set, this helps to provide justification for PaperClip's role here as a credible information provider (Shot 5 in Figure 8.2).

We posit that such a constructed representation of authority is evidence of defamiliarisation in action. In the domain of social media, the emphasis is often placed on the democratisation and decentralisation of communication. The convention would thus usually be of establishing a connection with the audience via ideational meanings that background possible meanings of unequal power in terms of the relationship between content producer and audience (Gordon, 2020; Kar, 2016). However, what we observe in this instance is the establishment of a clear voice of authority, leveraging on the calm and stability of a nostalgic pre-pandemic past.

Unexpectedness

Another instance of defamiliarisation can be found in the use of black-and-white film clips at particular points in the video. For example, such clips were used in parts of the video relevant to the themes of Spread and Mask to illustrate scenarios of how infections take place in daily life. One instance of such a shot presents an interaction between two individuals, with the subtitle "among family members who have close contact" [在密切接触的家庭成员里] (e.g. see example No. 4 Black-and-white film clip in Table 8.2.). Intersemiotically, the visual is an instantiation of the verbal text in the subtitle, illustrating how family members in close contact with each other can spread the disease via droplets released while talking. These droplets are actually visualised in the clip as moving white dots. What is interesting here is how the individuals depicted here are of non-Chinese origin – Caucasians. In addition, the use of a monochrome colour scheme reduces realism in the depiction and lowers the degree of familiarity. The use of such shots, we argue, operationalises defamiliarisation through the unexpectedness constructed. Firstly, the use of individuals of non-Chinese origin provides a form of abstraction by distancing the viewer from what is being depicted. Moreover, the use of a monochrome palette accentuates this distancing effect. Both these contribute to defamiliarisation because the expected strategy of closing the distance between content producer and viewer to establish relatability is not employed. However, this distancing is not disadvantageous since what is being described here is the process of viral transmission. The unexpectedness (e.g. Bednarek, 2016) makes viewers pay attention to what is odd in this clip – the presence of moving white dots representing viral droplets – which is also reinforced in the subtitles and voice-over narration explaining the process of transmission.

Discussion

The previous section has presented analysis showing the multimodal realisation of defamiliarisation via the use of select semiotic resources. We now proceed to discuss how defamiliarisation as manifested in the

above analysis functions to capture the audience's attention and perform affective engagement, focusing primarily on the social context of communicating science about the pandemic in Chinese social media.

We argue here that defamiliarisation as a rhetorical strategy functions to capture the audience's attention and engages them affectively by leveraging on contrast and juxtaposition, intertextual meanings and unexpectedness.

Contrastive meanings of the abstract and concrete are juxtaposed in the video's overall structure and use of modality. These contrasts leverage the credibility of abstraction in science, utilising semiotic representations with low modality as the basis before transitioning to the relatability of concrete real-life representations. Accessibility and connection with the viewer are deprioritised. In fact, what is assumed is how the viewer functions as an information seeker, a role that is likely considering the unpredictability of the pandemic situation and its significant negative impact globally. In addition, the use of the voice of authority, combined with the stability of a pre-pandemic past, provide further substantiation of this appeal to authority, with the use of unexpectedness highlighting the scientific information by ironically distancing the viewer from what is being represented. As mentioned, this distancing is not one that effects a reduction in attention but potentially raises the senses to what is unusual that is being represented.

Besides this emphasis on credibility and getting scientific information across, an interesting observation here is how the video ends with a resolution, even with the pandemic situation in China at the time of its broadcast at a significant height. This again is something rather unexpected. As discussed earlier, this resolution consists of video clips of cases of safety accidents, showing how even daily life can have its dangers. When paralleled with the virus situation, the effect here is of framing the death rates caused by the virus as something not to be too alarmed about. The dark humour of utilising such clips of safety accidents leverages affective engagement, emphasising that life itself is not without its dangers.

The use of intertextual meanings in the video also evidences the strategy of defamiliarisation. As discussed earlier, the use of shots from CCTV news broadcasts and an old-school television set highlight meanings of authority tinged with the stability of a pre-pandemic era. Such establishment of credibility from the very beginning goes against the usual convention in online science videos that seek to decentralise scientific authority by emphasising proximity, using informal language and avoiding scientific jargon (García-Avilés & de Lara, 2018; León & Bourk, 2018). In fact, such patterns of public health communication in the early stages of the COVID-19 pandemic were observed in experimental studies (Shulman & Bullock, 2020; Shulman et al., 2021). These studies showed how subjects were not put off by the use of scientific jargons in pandemic-relevant information, evidencing a desire for credible scientific

information. Consequently, it can be argued that the establishment of credibility is, in fact, a means to get the audience's attention.

Finally, the use of unexpectedness functions to grab the audience's attention and involve them affectively as well. As shown in the analysis, the use of black-and-white video clips has the potential to engage the audience's attention since the predominant palette for online social media content is usually colourful. Moreover, the use of such clips can involve the audience affectively since these quite likely catch the audience off-guard. This potentially increases their sensitivity to other unexpected information being represented, which in the case of the example analysed here, is the viral droplets depicted as moving white dots, together with the non-Chinese origin of the individuals depicted in the video.

We thus argue here that, with such strategies that enable the operationalisation of defamiliarisation, the video presents science related to the pandemic in ways that leverage on meanings that can be categorised as official, formal and authoritative. Such practices evidence a pattern that goes against the trend of science communication in social media that tends to be accessible, participatory and inclusive (Bourk & León, 2018; Zhang, 2019; Zhang et al., 2015). In other words, social media is shaping and shaped by the overall culture shift of information transmission from the formal styles of authority-to-public to those of dissolving the borderlines between authority and the public and channelling information on an equal footing (Machin & Polzer, 2015). Defamiliarisation therefore seems to be a strategy catered towards the demands of this pandemic, where the domain of social media, with its lack of regulation and freedom of access has led to the problem of an infodemic characterised by misinformation about the virus (Naeem & Bhatti, 2020). The spread of such misinformation was significant, especially during the early stages of the pandemic. With its prevention and treatment awaiting scientific exploration and verification at that time, the myriad sources of incorrect information circulating on the internet about COVID-19 made it challenging for public health communication efforts (Kim et al., 2020). With the high uncertainty and dynamic unfolding associated with the COVID-19 pandemic, many people relied on social media for information, but found it difficult to differentiate evidence-based information from unreliable misinformation (Naeem & Bhatti, 2020).

With defamiliarisation, it is the very act of making the familiar unfamiliar that provides it with the leverage needed to cut through the "noise" of false information arising from the infodemic. Dynamic interplays of meaning that are different are potentially more able to grab attention and utilise affective meanings to keep the audience engaged, as has been shown in the analysis here. Defamiliarisation is thus designed to move against what is expected in the social media context to enable effective communication.

Limitations

The present study, however, is not without limitations. For one, the analysis is confined to only one popular science communication video. Secondly, the analysis here has focused on only a few selected semiotic resources. A more comprehensive and fine-grained analysis across spoken and written text, photographs, graphs, animations, sound, music, etc., could yield more in-depth information about the multiple ways defamiliarisation manifests in multimodal discourse. Lastly, the analysis is based solely on the authors' interpretations. Audience reception studies could yield further insights into how the public actually engages with and perceives information thus communicated in popular science videos.

Conclusion

This study has adopted the concept of defamiliarisation, interpreted from a social semiotic perspective, to analyse the multimodal meaning construction in a science video about the COVID-19 pandemic on Chinese social media. By showing the multimodal realisations of the rhetorical strategy of defamiliarisation at different levels of discourse in the video, we have revealed how this strategy was used effectively to represent subjects and events in "strange" and unexpected ways, requiring viewers to re-examine their perceptions of what would ordinarily seem conventional and familiar. The application of the conceptualisation of defamiliarisation in studying science communication discourse brings in a new perspective for analysts and practitioners in science communication concerning how to engage the public in the age of an "infodemic" perpetuating by unverified and unsubstantiated information about the COVID-19 pandemic. The role of visual resources in achieving the effect of defamiliarisation suggests that non-verbal resources are more likely to be used for emerging discourse practices, though meanings are always constructed multimodally. While we are fully aware of the limitations of the present study with only one video being analysed, we hope that the particular case will help to stimulate reflections for further exploration in the increasing complex environment of science communication. Such reflections are more pressing than ever in this "infodemic" era.

Acknowledgements

Notes

1 www.163.com/news/article/F4GA75H500019HUL.html, retrieved 12 October 2020.
2 The video is no longer available on the *Bilibili* platform because the account of PAPERCLIP has been deactivated for some sensitive topics. The video is still accessible through official media such as Xinhua Net (www.xinhuanet.com/politics/2020-02/02/c_1125523664.htm) and CCTV (http://news.cctv.com/2020/02/02/ARTI1kwtSoDGx5Ka53wXoYKK200202.shtml).

References

Abrams, E. M., & Greenhawt, M. (2020). Risk communication during COVID-19. *The Journal of Allergy and Clinical Immunology: In Practice*, 8(6), 1791–1794. https://doi.org/10.1016/j.jaip.2020.04.012

Adami, E., Al Zidjaly, N., Canale, G., Djonov, E., Ghiasian, M. S., Gualberto, C., … Zhang, Y. (2020). PanMeMic Manifesto: Making meaning in the Covid-19 pandemic and the future of social interaction. *Working Papers in Urban Language & Literacies*.

Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., … Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, 4(5), 460–471. https://doi.org/10.1038/s41562-020-0884-z

Bednarek, M. (2016). Voices and values in the news: News media talk, news values and attribution. *Discourse, Context & Media*, 11, 27–37. https://doi.org/10.1016/j.dcm.2015.11.004

Bell, G., Blythe, M. & Sengers, P. (2005). Making by making strange: Defamiliarization and the design of domestic technologies. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 12(2), 149–173.

Bohrn, I. C., Altmann, U., Lubrich, O., Menninghaus, W. & Jacobs, A. M. (2012). Old proverbs in new skins–an fMRI study on defamiliarization. *Frontiers in Psychology*, 3, 204.

Bourk, M., & León, B. (2018). Conclusion: Innovation and future challenges. In B. León & M. Bourk (Eds.), *Communicating science and technology through online video* (pp. 117–123). Routledge.

García-Avilés, J. A., & de Lara, A. (2018). An overview of science online video: Designing a classification of formats. In B. León & M. Bourk (Eds.), *Communicating science and technology through online video* (pp. 15–27). Routledge.

Goldstein, C. M., Murray, E. J., Beard, J., Schnoes, A. M. & Wang, M. L. (2020). Science communication in the age of misinformation. *Annals of Behavioral Medicine*, 54(12), 985–990.

Gordon, S. R. (2020). Centralization and decentralization in ICT: Duality and complementarity. *Journal of Information Technology Case and Application Research*, 22(2), 76–80. https://doi.org/10.1080/15228053.2020.1771510

Halliday, M. (1978). *Language as social semiotic: The Social interpretation of language and meaning*. Arnold.

Iversen, S. (2016). Permanent defamiliarization as rhetorical device; or, how to let Puppymonkeybaby into unnatural narratology. *Style*, *50*(4), 455–462. https://doi.org/10.5325/style.50.4.0455

Jones, R. H. (2021). *Viral discourse*. Cambridge University Press.

Kar, B. (2016). Citizen science in risk communication in the era of ICT. *Concurrency and Computation: Practice and Experience*, *28*(7), 2005–2013.

Kim, H. K., Ahn, J., Atkinson, L. & Kahlor, L. A. (2020). Effects of COVID-19 misinformation on information seeking, avoidance, and processing: A multicountry comparative study. *Science Communication*, *42*(5), 586–615.

Kousha, K., Thelwall, M. & Abdoli, M. (2012). The role of online videos in research communication: A content analysis of YouTube videos cited in academic publications. *Journal of the American Society for Information Science and Technology*, *63*(9), 1710–1727. https://doi.org/10.1002/asi.22717

Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication* (1st ed.). Arnold.

Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design* (2nd ed.). Routledge.

León, B., & Bourk, M. (2018). Investigating science-related online video. In B. León & M. Bourk (Eds.), *Communicating science and technology through online video* (pp. 1–14): Routledge.

Luzón, M. J. (2019). Bridging the gap between experts and publics: The role of multimodality in disseminating research in online videos. *IBÉRICA. Journal of the European Association of Languages for Specific Purposes*, *37*, 167–192.

Machin, D., & Polzer, L. (2015). *Visual journalism*. Palgrave.

Matta, G. (2020). Science communication as a preventative tool in the COVID19 pandemic. *Humanities and Social Sciences Communications*, *7*(1), 1–14.

Mattiello, E. (2019). A corpus-based analysis of scientific TED talks: Explaining cancer-related topics to non-experts. *Discourse, Context & Media*, *28*, 60–68. https://doi.org/10.1016/j.dcm.2018.09.004

Myers, G. (2003). Discourse studies of scientific popularization: Questioning the boundaries. *Discourse Studies*, *5*(2), 265–279. https://doi.org/10.1177/1461445603005002006

Naeem, S. B., & Bhatti, R. (2020). The Covid-19 "infodemic": A new front for information professionals. *Health Information & Libraries Journal*, *37*(3), 233–239.

O'Hair, H. D., & O'Hair, M. J. (2021). *Communicating science in times of crisis: COVID-19 pandemic*. John Wiley & Sons.

O'Halloran, K., & Lim, V. F. (2009). Sequential visual discourse frames. In E. Ventola & A. J. M. Guijarro (Eds.), *The world told and the world shown: Multisemiotic issues* (pp. 139–156). Palgrave Macmillan.

O'Halloran, K., Tan, S. & E, M. K. L. (2014). A multimodal approach to discourse, context and culture. In J. Flowerdew (Ed.), *Discourse in context: Contemporary applied linguistics* (Vol. 3, pp. 247–272). Bloomsbury.

Perrault, S. T. (2013). *Communicating popular science: From deficit to democracy*. Palgrave Macmillan.

Philipsen, L., & Kjærgaard, R. S. (2018). *The aesthetics of scientific data representation: More than pretty pictures*. Routledge.

Prieto-Ramos, F., Pei, J. & Cheng, L. (2020). Institutional and news media denominations of COVID-19 and its causative virus: Between naming policies and naming politics. *Discourse & Communication*, *14*(6), 635–652. https://doi.org/10.1177/1750481320938467

Scotto di Carlo, G. (2014). The role of proximity in online popularizations: The case of TED talks. *Discourse Studies*, *16*(5), 591–606. https://doi.org/10.1177/1461445614538565

Shklovsky, V. (1917/2017). Art as technique. In J. Rivkin & M. Ryan (Eds.), *Literary theory: An anthology* (3rd ed., Vol. 3, pp. 8–14). John Wiley & Sons.

Shulman, H. C., & Bullock, O. M. (2020). Don't dumb it down: The effects of jargon in COVID-19 crisis communication. *PLOS ONE*, *15*(10), e0239524. https://doi.org/10.1371/journal.pone.0239524

Shulman, H. C., Bullock, O. M. & Riggs, E. E. (2021). The interplay of jargon, motivation, and fatigue while processing COVID-19 crisis communication over time. *Journal of Language and Social Psychology*, *40*(5–6), 546–573. https://doi.org/10.1177/0261927X211043100

Szmuda, T., Syed, M. T., Singh, A., Ali, S., Özdemir, C. & Słoniewski, P. (2020). YouTube as a source of patient information for coronavirus disease (COVID-19): A content-quality and audience engagement analysis. *Reviews in Medical Virology*, *30*(5). https://doi.org/10.1002/RMV.2132

Trench, B. (2008). Internet: Turning science communication inside-out? In M. Bucchi & B. Trench (Eds.), *Handbook of public communication of science and technology* (pp. 185–198). Routledge.

Welbourne, D. J., & Grant, W. J. (2016). Science communication on YouTube: Factors that affect channel and video popularity. *Public Understanding of Science*, *25*(6), 706–718. https://doi.org/10.1177/0963662515572068

Zarocostas, J. (2020). How to fight an infodemic. *The Lancet*, *395*(10225), 676. https://doi.org/10.1016/S0140-6736(20)30461-X

Zhang, Y. (2019). Scifotainment: Evolving multimodal engagement in online science news. In C. Sancho Guinda (Ed.), *Engagement in professional genres* (pp. 243–258). John Benjamins.

Zhang, Y., Machin, D. & Song, T. (2015). Visual forms of address in social media discourse: The case of a science communication website. *Journal of Multicultural Discourses*, *10*(2), 236–252. https://doi.org/10.1080/17447143.2015.1042384

9 Beyond reporting

The communicative functions of social media news during the COVID-19 pandemic

Yuanzheng Wu and Dezheng (William) Feng

Introduction

The COVID-19 pandemic is considered the most severe public health crisis of the century with over 424 million infected cases and over 5 million deaths across the world by February 2022. As the first country affected by the disease, China has launched an all-out battle against the pandemic involving the entire population after the first case of infection was reported in December 2019. News media have played a critical role in the battle, particularly during the first three months after the outbreak when people all over the country stayed at home in panic. To manage the public health crisis, official news media organisations have provided all-round coverage about COVID-19 to inform the public of the latest developments and to educate them on precautionary measures. These functions are to a large extent afforded by the internet, in particular, social media, which has provided timely multimodal communication of information to the isolated public. It is therefore important to understand how social media news functions to manage the public health crisis by performing multiple communicative functions.

We use the term "social media news" to refer to news produced by news media organisations (e.g. CCTV, *The Guardian*, BBC, *The Washington Post*, etc.) on social media platforms (e.g. Facebook, Twitter, WeChat and TikTok). In recent years, social media has become an important platform on which news is produced and consumed (Welbers & Opgenhaffen, 2019). Transformed from the logic of mass media (Altheide & Snow, 1979) to the logic of social media (Van Dijck & Poell, 2013), news produced on social media differs from traditional news in many dimensions such as communicative styles, news values and emotional contents. For example, Welbers and Opgenhaffen (2019) note that compared with the detached style of news on traditional media, news produced on social media tends to be more personal and subjective. Scholars also point out that entertainment has become the most common news value on social media, with shareability potentially considered as a new news value when organisations produce news on social media (Harcup & O'Neill,

2017; Trilling et al., 2017; Welbers & Opgenhaffen, 2019). Additionally, Wahl-Jorgensen (2020) even observes an "emotional turn" of news on digital media and social media, suggesting that social media news tends to balance "between abstract factual information and concrete, emotional and personalised storytelling" (Wahl-Jorgensen, 2020, p. 188). For news videos on the platform of TikTok in particular, Vázquez-Herrero et al. (2020, p. 13) find the tendency of catering to the younger generation by presenting news "with a fun, simple and attractive tone" and "in a casual and musical atmosphere".

In the context of public health crises, social media has become an increasingly important platform for disseminating information and persuading the public to take effective actions (Agrawal & Gupta, 2020). Previous studies have investigated the role social media played in containing the epidemics/pandemics of Ebola (Househ, 2016), H7N9 (Chen et al., 2019), H1N1 (Liu & Kim, 2011), Zika virus (Fu et al., 2016) and COVID-19 (Khatri et al., 2020; Ngai et al., 2020). These studies suggest that social media perform various functions during public health crises, including providing information (Khatri et al., 2020; Wong et al., 2017), educating the public (Odlum & Yoon, 2015), guiding the public's behaviour (Nagpal et al., 2015; Roy et al., 2019) and monitoring public reactions (Gui et al., 2017). For example, Fu et al. (2016) find that Twitter is taken as a preferred site by the public to attain Zika-related information than government media sites. Nagpal et al. (2015) also assert that YouTube videos about symptoms of Ebola disease play an effective role in disseminating medical knowledge during the Ebola epidemic.

Despite the aforementioned plethora of studies discussing the functions of social media during public health crises, they tend to end at content analysis and do not provide a systematic understanding of how the identified communicative functions are realised through multimodal discursive choices. For social media news with rich multimodal resources, it is essential to take non-linguistic resources into consideration since the "exclusive focus on language may lose essential aspects of meaning and subsequent interpretations of communicative effects, cultural values and ideology may be partial or incorrect" (Feng, 2019a, p. 65). To address this need, the present study employs a multimodal discourse analysis approach to investigate the construction of different communicative functions in social media news during the COVID-19 pandemic. The social media platform under investigation is TikTok, which is chosen for its popularity. With more than 800 million daily active users worldwide, TikTok has been one of the fastest-growing social media platforms in 2020 (Vázquez-Herrero et al., 2020). In the context of China, 84.4% of official news media have opened their accounts on TikTok (People, 2020) and it has been an emerging platform on which national news outlets expand their influence on the public (Zhang, 2021). The present study starts from the premise that communicative functions of social media news are realised through the social semiotic activities that news organisations perform.

The term "social semiotic activity" is used to describe the field of activity that is constructed by various semiotic resources. For example, language is used to report events, give instructions, explain a phenomenon and so on. We adopt Matthiessen's (2009) typology of social semiotic activities to explicate the construction of multiple communicative functions of social media news. Specifically, this study addresses the following research questions: (1) What social semiotic activities are represented in news on TikTok during the COVID-19 pandemic in China; (2) how these activities are constructed with verbal and visual resources; and (3) what the communicative functions of these activities are and how they reveal the social-cultural context of China and the influence of social media.

Data and analytical method

The data under investigation is video news posted by CCTV (China Central Television) News on TikTok. CCTV News represents the most authoritative voice of the Chinese government (Feng, 2013), and its TikTok account has more than 140 million followers and 6.1 billion likes, which ranks second among all media accounts on TikTok. In the present study, the time span is set from 20 January 2020 to 8 April 2020. On 20 January the Chinese State Council announced its plans for the prevention and control of the pandemic and the first COVID-19-related news was posted on TikTok; 8 April 2020 was the day on which the outbound traffic restriction in Wuhan was lifted, which marked the normalisation of work and life in Wuhan (SCIO, 2020). After filtering out unrelated news, 582 COVID-19-related news video posts were collected during this period. To generate a manageable dataset for this study, a random sampling method was conducted using the Sample Size Calculator developed by the Australian Bureau of Statistics. Setting the confidence level at 95% and the confidence interval at 0.05, a sample size of 232 required posts from the whole data population was extracted as the data pool for further analysis. To determine which 232 videos of the 582 ones should be analysed, each of the 582 video posts was assigned a sequential number and the online software of Random Number Generator was used to extract the particular 232 videos from the whole dataset.

It is well known that CCTV's news programmes do not merely report information but also serve important functions of transmitting political messages and guiding public opinions (Feng, 2014, 2017). For example, Zhou and Huang (2015) argue that the ideological function of CCTV's prime time *News Simulcast* is even more prominent than its informational function, that is, its main function is to maintain social order and to construct shared values in China. To understand the communicative functions of CCTV news mediated by TikTok, this study draws on the register typology proposed by Matthiessen (2009). Rooted in Systemic Functional Linguistics, the register typology explicates the ideational representations, or "what's going on", in the field of context (Matthiessen, 2013, p, 450).

According to the typology, human behaviours are categorised into eight different types of social semiotic activities, namely, expounding, reporting, recreating, sharing, enabling, recommending, exploring and doing. The definition of each type of social semiotic activity is explained as follows:

- Reporting: Reporting particular phenomena, chronicling the flow of events, surveying places or inventorying entities.
- Sharing: Sharing personal experiences and values (opinions) as part of establishing, maintaining and negotiating interpersonal relationships.
- Expounding: Expounding knowledge about general classes of phenomena by categorising them (e.g. in terms of taxonomies or characterisation) or by explaining why general classes of events take place.
- Recommending: Recommending either for the sake of the addressees by offering advice or for the sake of the speaker by promoting something.
- Recreating: Recreating any aspect of prototypically human life imaginatively by dramatising or narrating events as verbal art with a theme.
- Enabling: Enabling some course of activity, including instructing people in how to undertake it or regulating the activity by controlling people's actions.
- Exploring: Exploring opinions and positions by assigning them values (e.g. positive or negative) or by debating or discussing them.
- Doing: Engaging in a joint social activity; using language to facilitate the performance of this activity.

Among these social semiotic activity types, the first seven are realised primarily through language or other semiotic resources (e.g. gestures, facial expressions, visual images, etc.), while the last activity is conducted by the "social process of doing such as teamwork in a fishing expedition or surgery in an operating theatre" (Matthiessen, 2009, p. 28). The first seven activities serve as a useful analytical tool to map out the complex communicative functions that are realised through language and images in social media discourse, as is demonstrated in Xu's (2019) study. The typology of social semiotic activities is also useful for understanding interdiscursivity in social media news because it allows us to examine which activities are involved in certain professional practices and how they are mixed. According to Bhatia (2017, p. 35), interdiscursivity refers to "various forms of hybrid and relatively novel constructs by appropriating or exploiting established conventions or resources associated with other genres and professional practices". In digitalised genres, generic integrity is often violated for multiple communicative purposes, and the boundary between different genres has become increasingly blurred (Andersen & van Leeuwen, 2017; Feng, 2019b). Drawing upon Feng (2019b), we will analyse two types of mixtures, namely, juxtaposition and blending. In juxtaposition, one activity type follows another in a

sequential manner (see Fairclough, 1992). For example, a video starts with a reporting activity and is then followed by an exploring activity to evaluate the reported content. In blending, the representation of one activity appropriates the semiotic resources typically associated with another activity. For example, the reporting of an event or the explanation of scientific knowledge may be accomplished in an entertaining way through storytelling, that is, the blending of reporting/expounding and recreating. Juxtaposition and blending allow one piece of social media news to perform two or more communicative functions simultaneously.

The social semiotic activities in the register typology are realised by choices of language and images in the short videos on TikTok. Our analysis of the realisation is mainly bottom-up, that is, capturing the salient features in the use of language and images. For language, we focus on the expressions of emotions and attitudes because such expressions play a key role in sharing and reporting activities. Our analysis draws upon the appraisal system (Martin & White, 2005), which includes three subcategories, namely, values of emotional responses (Affect), values according to which human behaviours are socially assessed (Judgement), and values that address the aesthetic qualities of objects and entities (Appreciation). Attitudes can be expressed explicitly through attitudinal lexis (e.g. happy, sad, kind, responsible, etc.) or implicitly through the recounting or depiction of events (e.g. "A thousand people died in a single day"). For images, we mainly analyse their representational meaning and interactive meaning in Kress and van Leeuwen's (2006) framework. Representational meaning refers to how images represent people (or objects) as participants and the processes they are engaged in. Our analysis will focus on the human participants that are represented (e.g. doctors and patients), their actions, reactions (i.e. emotions) and analytical features (e.g. facial features, clothing, etc.). Interactive meaning is concerned with the symbolic interaction between the image and viewers (e.g. social distance and power relations), which is mainly realised through camera positioning (e.g. close/medium/long shot; low/eye-level/high angle of camera). In our analysis, we focus on the symbolic relation between the images and viewers by analysing the shot distance (e.g. close shot or long shot).

Analysis

Overview of social semiotic activities

In this section, we will first provide an overview of the distribution of social semiotic activities and then elaborate on the most salient ones in the following sections. Based on the analysis of the 232 CCTV new videos on TikTok, 453 social semiotic activities are identified, and their distribution is shown in Figure 9.1. Several observations can be made from the overall distribution. First, the sharing activity takes up the largest proportion of 41.28% among all activities, suggesting a different
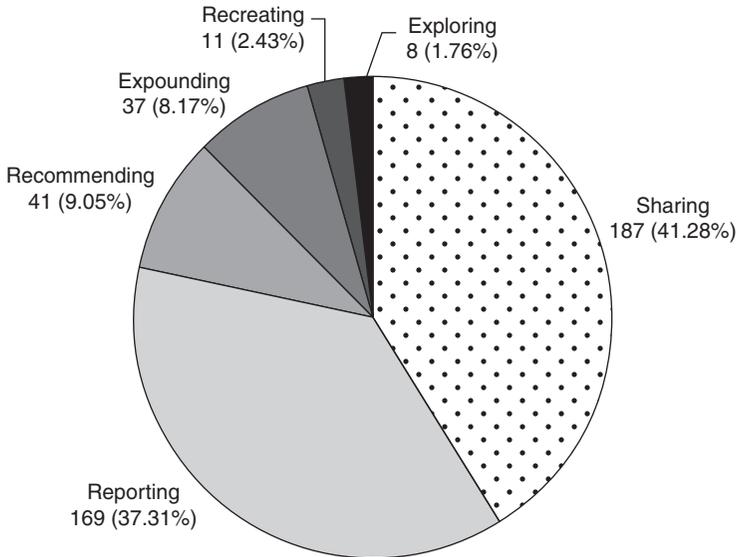
Figure 9.1 The distribution of social semiotic activities.

presenting style from traditional journalistic practice that is objective and impersonal (Blaagaard, 2013). This feature echoes observations that social media news tends to be more emotional and subjective compared with traditional news (Welbers & Opgenhaffen, 2019). The large amount of sharing also suggests that providing emotional support to the public is considered the primary function of the national news outlet during a public health crisis. Second, recommending and expounding account for 17.22% of the overall activities, which suggests that educating the public about virus-related knowledge and appropriate behaviours in response to the virus is an important function undertaken by news videos produced by CCTV on social media. Third, the total number of social semiotic activities significantly exceeds the number of the total video posts because one video usually contains two or more activities. The activities are usually organised sequentially (i.e. juxtaposition), and the most common patterns of juxtaposition include reporting and sharing (122 cases) and expounding and recommending (27 cases). For the juxtaposition of reporting and sharing, the posts usually start with an objective report, which is followed by a sharing activity to express emotions or judgement towards the reported content. Posts of this kind form an emotional and personalised style of reporting, which is a salient feature of social media news (Wahl-Jorgensen, 2020). With regard to the combination of expounding and recommending, the expounding activity first explains the scientific mechanism of a medical item, and a recommending activity follows to provide prevention measures against the pandemic. Compared

with the large amount of juxtaposition, the blending of activities occurs less frequently, and the majority of the blending cases is the appropriation of a recreational style in the activities of reporting and recommending. However, recreating is never used on its own in our sample, which may reflect that CCTV News, while making efforts to adapt to social media, still maintains its seriousness as a national media outlet. In what follows, we provide a detailed analysis of the four major activity types and elucidate how they are constructed with multimodal resources. Recreating and exploring activities will not be analysed as there are only a few cases in our sample and they are blended with other activities in most cases.

Sharing activity

The sharing activity is the most prominent one in the news posts, accounting for 41.28% of all the activities conducted by the reporters. As mentioned earlier, most sharing activities co-occur with reporting activities in sequential order. The content of sharing can be categorised as Affect and Judgement in Martin and White's (2005) attitude framework. Affect is concerned with reporters' feeling, which mainly includes expressions of encouragement, gratitude towards people who contribute to the containment work, good wishes for health and condolences towards the dead. Affect expressions mostly appear in the caption of a post and both language and emojis are used. In terms of language, expressive speech acts are often used to show reporters' encouragement and good wishes (e.g. 加油 (fighting), 祝你平安归来 (wish you a safe return)). Personalised address forms such as "小姐姐" (little sister), "张大哥" (big brother Zhang) and trendy words such as "点赞" (give a like), "泪目" (tears in the eyes) are often used to conform to the stylistic features of social media writing. As far as emojis are concerned, facial expressions (e.g. 😊 😁 😌), emblematic gestures (e.g. 🤏 👍 🤳) and ideational entities (e.g. 🖤 🍃 💐) with positive meaning potentials (Logi & Zappavigna, 2021) are frequently used in the news on TikTok, which cannot be found in print news or TV news. As noted by Sampietro (2016), emojis serve to "express informality or to enhance phatic communion" (p. 109). The extensive use of emojis in news on TikTok can reinforce a casual and informal reporting style and enact an intimate relation with the audience, which is necessary for engaging the audience on social media. For example, in Text 1, the video caption starts with a reporting activity of doctors singing an encouraging song on their way to work, and this is followed by a sharing activity to express good wishes with a rainbow emoji, an expressive speech act and a trendy encouraging expression of "Aoligei" (meaning "awesome"). With these semiotic choices, a closer interpersonal relationship between news and online viewers is enacted.

   Text 1: 最后一次去方舱上夜班，她们一路齐唱《阳光总在风雨后》。🌈一切终将过去，早日凯旋，奥利给！（On the way to the last night shift in the mobile cabin hospital, they sing the song *Sunshine Always*

Comes after the Storm together. 🎐 All things will pass and wish you a triumphant return. Aoligei!)

Judgement refers to reporters' sharing of positive attitudes towards the behaviours of different participants in the news videos, including medical workers and their family members, delivery men, policemen, construction workers, community volunteers and so on. Judgement appears in 105 videos and is realised in both video captions and reporters' utterances. For video captions, Judgement, like Affect, is mainly shared in short expressive speech acts such as "致敬" (respect) and "为你点赞" (give you a thumb up). As for reporters' utterances, a notable strategy that makes them explicitly attitudinal is the use of metaphors in evaluating good qualities and behaviours, such as comparing medical workers to angels and comparing construction workers to gods (who can build a hospital in a short time). In Text 2, for example, the voluntary service is metaphorised as harvest, light in darkness, and a source of light in one's life. By using figurative language to accentuate the value of voluntary behaviour, the news is clearly opinioned and functions to encourage volunteer service among the society.

Text 2: 疫情终将过去，这段志愿服务也会成为你们重大的收获，因为你们让很多被帮助的人在最无助的时刻在昏暗处感觉到光，而你们的生命也因为这段时间的历练而将闪闪发光。(The epidemic will eventually dissipate, and this voluntary service will be a great harvest to you. Because you have helped so many people to feel the light when they were at the most helpless moment, and your lives will shine because of this experience.)

The Affect and Judgement shared in news posts serve to shape public opinions and construct a social atmosphere of gratitude, good wishes and care for each other. This echoes with the previous observation that an important function of news in China is promoting shared values to maintain social order (Hou, 2021; Zhou & Huang, 2015), which is particularly important during a public health crisis. Different from the use of formal expressions, stereotyped discourse structures (Feng, 2013), "stylistic 'templates' and homogenized discourse" (Yin & Wang, 2010, p. 390) in China's traditional TV news and printed news, the prevalence of expressive speech acts, personalised address, trendy words and emojis in the short video news on TikTok is purposely designed to engage the audience's attention in the highly competitive and information-overloaded digital media environment (Fletcher & Nielsen, 2018; Lamot, 2021; Sohn, 2011).

Reporting activity

Reporting ranks second and accounts for 37.31% of all the activities in the dataset. The content of reporting can be classified into five major categories, namely, the pandemic situation, government measures, doctors, patients and citizens. The reporting activity serves not only to inform the

public of the latest pandemic information, but also to portray a positive image of the government and to praise doctors, patients and citizens for their positive attributes. However, compared with explicit Judgement articulated by reporters in the sharing activity, in the reporting activity, attitudes are predominantly embedded in the representation of events, participants' actions and their utterances. This is different from the presenting practice of CCTV's television news programme in which voice-over or scripted news reading from news anchors or reporters are predominant while participants' voices are often marginalised or even muted (see Feng, 2013; Hou, 2021).

Doctors are the most frequently reported participants in the news, appearing in 58 videos. The reports highlight doctors' tireless work, self-sacrifice, as well as their attributes of being responsible, fearless and resilient. Rather than being presented by reporters, their attributes are mainly depicted through doctors' personal accounts, visual images and narrative stories. Firstly, doctors' personal accounts represent their attributes in two ways. The first way of representation is to use expressions with explicit attitudinal lexis such as "this is the responsibility of a doctor". The second way of representation, which is more implicit, is to recount the facts that can evoke viewers' judgements towards the represented participants. For example, in Text 3, though the doctor does not explicitly evaluate his/her colleagues, the attribute of self-sacrifice can be invoked through the factual recounting of the physiological needs (i.e. eat, drink, go to the toilet) that doctors fail to attend to when they are in medical protective suits. Secondly, with regard to visual resources, the videos mainly draw on the actional process, reactional process and analytical process (Kress & van Leeuwen, 2006) to depict doctor's busy work (e.g. treatment of patients), emotions (e.g. smiling) and their physical features indicating hard work (e.g. dark circles around eyes). When presenting these visual images, close-up video shots and eye-level camera angles are pervasively used to foreground them and to create a sense of closeness and equality with viewers. It is interesting to note that even though doctors are depicted as working long hours through analytical process (e.g. dripping with sweat after long hours of wearing protective suits), they are often depicted as positively facing the situation in the reactional process (e.g. smiling). For example, in Figure 9.2, the doctor's smile and her face-mask-imprinted face are represented in a close-up shot to highlight her good spirit even after extended hours of working with the face mask on. The close-up shot of the image serves to specify the doctor as an individual with feelings on the one hand and create a sense of intimacy with the audience on the other hand. By utilising the above visual elements, news of this kind praises the doctors for their high spirit under the extraordinary pressure of handling this health crisis. Thirdly, in terms of narrative stories, the reporting activity is blended with the recreating activity in the form of a dramatised narrative in which doctors' attributes are encoded in storylines. Different from the short duration

Figure 9.2 Doctor's imprinted face as a result of wearing a face mask for an
extended period of time.

of about 15 to 60 seconds in other types of reporting activities, posts of
this type are about 3 to 5 minutes long, so as to allow the plot to unfold.
In the narratives, the doctors' attributes of fearlessness and the sense of
responsibility are often represented as resolutions to the problems.

Text   3:   医生看惯了生死，但这几天我确实禁不住泪流满面，不是
为我自己流泪，是为我的同事流泪，不能上厕所，不能吃东西不能
喝水，我们已经做了一个医务工作者所能做的一切。   (Although   we
doctors keep a calm mindset towards life and death, I still can't help but
cry these days. I cry not for myself, but for my colleagues. They can't go
to the toilet, can't eat, can't drink. We have done everything we can as a
medical worker.)

The second most frequent type of report is about the pandemic situ-
ation, including daily updates of cases and improvements in terms of
pandemic control, which appears in 37 videos. The reporting of daily
updates is predominantly realised through language characterised by fac-
tual, objective and precise descriptions of each type of case. A typical
example is illustrated in Text 4, where information on new confirmed
cases, new deaths, total cases, total deaths and discharged cases in the
past 24 hours is updated. As a main channel for the Chinese government's
dissemination of information, the CCTV news reports not only provide
information about the pandemic for the public, but also serve to demon-
strate the government's transparency in handling this public health crisis
by providing timely and accurate information.

Text 4: 2020年2月2日0时-24时，新增确诊病例2829例，新增死亡病例57例。累计报告确诊病例17205例，累计死亡361例，治愈出院475例。 (From 00:00–24:00 on 2 February 2020, there are 2,829 new confirmed cases and 57 new death cases. There are 17,205 total confirmed cases, 361 total death cases and 57 discharged cases.)

Apart from reporting information of each type of case, the news posts also highlight improved pandemic situations, such as the discharge of patients, the reunion of separated families and the reopening of the epicentre Wuhan. In contrast to the objectivity of case updates, this type of information is characterised by the use of personal and emotional recounts of the represented participants' excitement and happiness towards the improved situations. Their excitement and happiness are realised through both visual images and verbal utterances. For visual resources, people's facial expressions (e.g. smiling and laughing) and actional process (e.g. hugging and jumping) that express positive emotions are deliberately given salience in close-up shots to indicate their good mood due to the improvement of the pandemic situation; for language, instead of using objective expressions, characters' emotional utterances are carefully chosen to represent their happiness and excitement towards the improved situations. For example, in Text 5, a metaphor is used by the character to vividly describe his happy feeling on his way back to his hometown when Wuhan was reopened after 76 days of lockdown.

Text 5: 现在感觉已经解放了，就好像绑着的翅膀终于放了，飞了。(I feel free now, as if the bound wings are finally untied and I can finally fly.)

Reports related to government measures are found in 34 news posts, which mainly include reports about executing stringent preventive and control measures, punishing illegal behaviours and dismissing government officials who fail to perform their duties in the containment work. This type of news post is usually presented by government officials on formal occasions of press conferences or journalistic interviews. The language of their utterances is characterised by the adoption of modal adverbs such as "一定" (must), "务必" (have to), degree adverbs such as "坚决" (firmly), "深入" (thoroughly), "切实" (conscientiously), "严肃" (seriously) and time adverbs of "立即" (immediately), "当即" (right now). These linguistic devices are what Martin and White (2005) referred to as the graduation markers that scale up the tone of the modified attitudes. The mobilisation of the graduation markers functions to reinforce the government's determination to control the pandemic. For example, in Text 6, the governor of Hubei province announces three measures to ensure the manufacturing of medical protective suits. Time adverbs "现场" (at the spot), "立即" (immediately), "加快" (speed up) and degree adverbs "一切" (all) are used to show the prompt response and the resolution of the government. As for the visual depiction of these government officials, analytical features of them wearing formal suits against backgrounds of formal occasions are represented to suggest the authority of their announcements. These governmental officials are

typically depicted as looking at the viewers, which demands viewers' attention. In the visual depiction of Text 6, the governor is represented as wearing a formal suit in the context of the press conference with a proper medium distance. The visual-verbal report not only provides information of what the government has done to control the pandemic, but also serves to evoke judgements towards the government as responsible, fast-acting and resolute in controlling the pandemic.

Text 6: 三项措施（扩大防护服生产）现场决定。省财政立即投入8000万。仙桃市委市政府立下军令状，为这两家企业扩大产能解决一切困难。立即派出专班进驻企业，发放临时许可证，特事特办加快审批。(Three measures to ensure the production of medical protective suits are announced at the spot. The provincial Bureau of Finance will allocate 80 million yuan immediately. Xiantao municipal party committee and municipal government have pledged to help the two enterprises solve all their difficulties in expanding production capacity. A special working group will be sent to the enterprise immediately to issue temporary permits and take it as a special case to speed up the approval process.)

The fourth type of report is about citizens who voluntarily contribute their shares in combating the pandemic. In 21 news posts, citizens are depicted as driving doctors to the hospital, preparing food for doctors, donating money and medical supplies, and so on. Two strategies are used in representing citizens' willingness to contribute. The first strategy is to adopt formal reporting style of newscasts, serious interviews and press conferences. The language contains descriptions of what citizens have done for the containment of the pandemic, which evoke the positive evaluations of their selflessness (e.g. "钱七虎院士捐款650万。" (The Academician Qian Qihu donated 6.5 million yuan.)). As for visual resources, news anchors, reporters or spokesmen in formal suits situating in serious backgrounds such as newsrooms or press conferences are often depicted to project a sense of authority. Another strategy is to draw upon citizens' personal accounts, journalists' conversational vlogs and visual depictions of citizens' engagement in voluntary work to highlight citizens' proactivity in fighting against the pandemic. Instead of adopting a detached, formal and objective reporting style, language in this type of reporting is featured by characters' accounts in a personal, conversational, emotional and attitudinal style (e.g. "看到医生在微信上发的状态很难受，就想为他们做点什么。" (I felt very sad when seeing the doctors' posts on WeChat and I just wanted to do something for them.)). As to visual depictions, videos often capture characters' actional process of doing their shares in the containment with medium or close shots in the context of their daily lives. It is noticeable that in presenting the citizens, the news often captures the details of their actional processes of providing voluntary services. For example, when covering the story of a family voluntarily cooking for doctors in their self-run restaurants, the camera tracks the whole process of them preparing, cooking, packing and delivering food to the hospitals. In this way, these characters are

highlighted as "role models" who are contributing to society through concrete efforts. News of this kind is strategically designed to "propagate 'positive energy' of the society" (Feng, 2013, p. 261). The combination of the above formal and informal styles of reporting reflects China's official news media's dual role in maintaining the authority and catering to audience interest (Long & Shao, 2021).

The last type of reporting activity concerns COVID-19 patients in hospitals, which is found in 19 videos. Notably, in these videos, patients are not depicted as suffering from the disease; instead, they are depicted as engaging in a wide range of relaxing activities and expressing gratitude to the doctors. Specifically, patients are visually depicted as dancing, playing Tai Chi, reading and performing comedies (i.e. actional process) with casual pyjamas (i.e. analytical process) in hospitals, which evoke favourable judgements about their optimism, good health condition and the relaxing atmosphere in the hospitals. With regard to the use of camera distance, these activities are usually presented in long shots so as to capture a panoramic view of all the patients, suggesting a group attitude of optimism (see Figure 9.3). The personal features of patients are de-emphasised as it is their homogenised attribute of being optimistic that matters. Besides, cheerful music is often added to reinforce the relaxing atmosphere in the hospital. Second, the news posts often feature patients expressing their gratitude to the doctors. Expressive speech acts with explicit emotional expressions of thanks, concerns and good wishes are used, such as "thank you for your treatment", "take care" or "wish you good health". Their gratitude is often reinforced by the close

Figure 9.3 Patients are dancing in the hospital.

Figure 9.4 A patient is hugging a doctor.

shot of their emotional reactions (e.g. shedding tears), intimate actional process (e.g. hugging) or gestures of love to give prominence to the deep affection between doctors and patients. For example, in Figure 9.4, the video depicts the patients' gratitude towards doctors' treatments in the action of hugging. By depicting scenarios that arouse emotional resonance on part of the audience, videos highlight the fact that patients are well treated and the relationship between doctors and patients is harmonious in hospitals.

Recommending activity

As the third frequently occurring type of activity, recommending accounts for 9.05% of all the activities. It mainly refers to suggestions, instructions or warnings regarding hygiene measures and proper social behaviours. A notable feature is that, as a national news outlet, CCTV's TikTok posts do not just provide formal and authoritative suggestions from medical experts, but also countrified warnings that are originally hung as banners in rural communities. Suggestions provided by medical experts are characterised by the use of imperative sentences, formal address terms, politeness expressions (e.g. please, hope) and the modality of obligation (e.g. should, need to) as shown in Text 7. Experts are often visually presented as wearing medical uniforms or suits (analytical process) on formal occasions of TV interviews to enhance the reliability and authority of their suggestions.

Figure 9.5 A warning banner hung in a village.

Text 7: 如果您曾经去过武汉，您曾经和武汉来的人有过接触，那么为了您自己的健康，您最好居家隔离。多饮水，一定要注意自己的身体状况，注意自己有没有出现发烧，这一点非常重要。(If you have been to Wuhan, and you have had contact with people from Wuhan, then it is best for you to quarantine yourself at home for your own health. Drink lots of water. You need to pay attention to your health and pay attention to your body temperature. This point is very important.)

In contrast, warning banners are characterised by the blending of recommending and recreating activities, in which humorous couplets and funny doggerels are used to exaggerate or "dramatise" the seriousness of violating protective measures, particularly on social distancing. For example, in Text 8, the serious consequence of not following protective measures is exaggerated through the metaphorical use of "murder" and "suicide". This warning is a recontextualisation of the banner from its original context of a village, as shown in Figure 9.5. Such warnings are posted online and attract millions of viewers on TikTok and other social media platforms. While formal suggestions by medical experts do not tend to be attitudinal in the observed dataset, warning banners often include negative evaluation of improper behaviours (e.g. visiting and gathering in Text 8).

Text 8: 串门就是互相残杀，聚会就是自寻短见。(Visiting each other is murdering; gathering is committing suicide.)

Expounding activity

The expounding activity, which refers to scientific explanations of health knowledge related to the coronavirus and the pandemic, accounts for 8.17% of all the activities. Three types of knowledge are explained, namely, the mechanism of virus transmission, effective protective

measures and medical treatment methods. Expounding health-related knowledge is usually not included in traditional news reports, but is considered an important element of social media news (Zhu et al., 2020). This type of activity is often represented through the utterance of medical experts on formal occasions of TV interviews or press conferences. Normally, experts start with a medical phenomenon of general concern to the whole of Chinese society (e.g. whether the coronavirus can transmit from person to person, whether aerosol transmission of the virus is possible, etc.) and then provide scientific explanations. Given the scientific nature of their explanations, the language in expounding activities in the dataset features a neutral and objective tone and the frequent use of medical jargon (e.g. microorganism, antiviral, aerosol and hydroxychloroquine) to project a sense of professionalism. For example, in Text 9, the medical expert explains why wearing two face masks does no good for the prevention of the virus by elaborating on the mechanism of airflow with objective descriptions and scientific terms. As for the visual depiction, news usually presents the experts wearing formal suits or white gowns (i.e. analytical process) to foreground their professionalism and authoritativeness. Unlike the doctors and patients portrayed in close-up shots in the reporting activity, experts in the expounding activity are mainly presented in medium shots to construct their professional distance with the viewers. Besides, experts are often depicted directly gazing at viewers to demand the audience's engagement in their explanations. What is worth noticing is that these expounding activities mainly occur in news posts at the beginning of the pandemic, which serve to provide the public with a rational understanding of the pandemic, to refute rumours and to alleviate panic among the society.

Text 9: 戴两个口罩会影响口罩的气密性，更会漏气。戴两个口罩我们呼吸的这种阻力增加了，你会更使劲儿的去吸气，这边漏气这边使劲儿吸气，不更容易被感染吗。(Wearing two face masks will affect the airtightness of the mask, which will lead to more air leakage. With two masks, the resistance to our breathing increases, and people will try harder to breathe. If the air leak on this side of the mask and you breathe in on the other side, then people will be more likely to be infected.)

Discussion

The analysis demonstrates that the news media does not only report what's going on, but also achieves multiple communicative purposes by representing different social semiotic activities, including sharing, reporting, recommending and expounding. Interdiscursivity is formed in three ways, namely, the presence of different types of social semiotic activities in different news posts, the juxtaposition of two or more activities in one news post and the blending of different activities in one news post. These activities are realised by the deployment of language and images in the news posts on TikTok. In this section, the multiple communicative

functions and their multimodal realisations will be discussed in relation to the social-cultural context and the technological affordances of TikTok. We argue that social media news serves as a form of discursive governance during the public health crisis (cf. Ngai et al., 2020); that is, the selection of social semiotic activities, and the linguistic and visual strategies of representation are used to "affect political and social representations within the public sphere in accordance with the wishes of political authorities" (Korkut et al., 2015, p. 2). These "wishes" can be categorised into three functions of CCTV's TikTok news posts in managing the COVID-19 pandemic, namely, social, political and educational functions.

The social function is manifested in the majority of news posts (sharing and reporting activities), which concerns promoting positive energy and maintaining social order during the public health crisis. The unexpected outbreak of the COVID-19 pandemic has caused widespread distress and panic among the Chinese people, and it is a pressing task for the government to boost people's morale. As instructed by Chinese President Xi Jinping, the Chinese media should serve to enhance people's faith, warm people's hearts and unite forces in society in COVID-19 related reports (Xi, 2020). This purpose is realised through the representation of different characters' positive attributes in the reporting activity and through the positive evaluation of these attributes in the sharing activity. In this way, the CCTV news posts construct the country as a harmonious and united family on social media in which all members are contributing their shares in the battle against the pandemic.

The political function is mainly realised through the reporting activity, which portrays the Chinese government as a responsible and effective leader during the COVID-19 pandemic. During the first few months after the outbreak, many people were dissatisfied with the government's containment measures and the lack of information transparency. To utilise digital resources to win back people's trust, CCTV News, the mouthpiece of the Chinese government, favourably portrays the government in TikTok posts as being transparent, reacting fast and sparing no effort in controlling the pandemic. Aside from reporting the government's efforts, the news posts also highlight the dedication of doctors/nurses (who are affiliated to government-controlled institutions in the Chinese public medical system), the good spirits of the patients and the improved situations day by day to convince viewers of the effectiveness of the government's containment measures. This political function echoes previous observations that CCTV news programmes represent the interests of the government as well as the people (Feng, 2013), and that China's news media continue to serve their political missions even if the news is tailored for dissemination on social media platforms (Long & Shao, 2021).

The educational function serves to educate the public about pandemic-related knowledge and to recommend preventive measures. This function is realised by scientific knowledge explained by medical experts in the

expounding activity and the protective measures suggested by different voices through the recommending activity. As social media is a powerful platform for public health education during a public health crisis (Odlum & Yoon, 2015), and it is taken as a preferred site for disseminating virus-related information than official government sites (Fu et al., 2016), CCTV adopts the social media platform of TikTok to disseminate scientific knowledge and promote good social behaviours, which responds to the call of better utilising this platform for public health education in China (e.g. Zhu et al., 2020).

The communicative functions are realised by various linguistic and visual strategies that distinguish social media news from traditional news reports in many ways. The most remarkable feature is the prevalence of personalised and emotional content in language and images. Different from the serious and detached style of CCTV News on traditional media (Feng, 2014), which remained unchanged during the pandemic, the social media news tends to use intimate forms of address, trendy words and expressive speech acts to present news, particularly in the sharing activity. In terms of visual images, social media news is different from television news in which images are used to "highlight 'elite' people" (Feng, 2013, p. 269). Our analysis shows that visual images are used to depict the actions and emotions of a wide range of social actors, with a remarkable shift of focus from political leaders to ordinary people. Moreover, compared with television news in which ordinary people are positioned as "background" in long-shot images, social media news uses a significantly larger number of close-up shots to give salience to the common people (see Figure 9.1 and Figure 9.3), which co-construct closer social relations with viewers together with a personalised language style.

The multiple communicative functions and linguistic and visual strategies are enabled by the affordances of TikTok. Based on previous studies (e.g. Feng, 2019b), we summarise three features that shape the discourse of news posts, namely, flexible update frequency, circulation by sharing and multimodal editability. First, social media news is not limited by the fixed frequency of coverage like traditional news (e.g. the routine of daily updates constrained by the news production circle) but can be updated multiple times in a day against the fast-changing epidemic situations. Afforded by the flexible update frequency, social media news can provide the most reliable real-time information and can accommodate more communicative functions based on the actual needs. Second, social media news is circulated by sharing and news on TikTok is influenced by the social media logic of virality (Al-Rawi, 2019; Vázquez-Herrero et al., 2020). To gain an edge in the fierce competition for video traffic in the cyber media environment, news has to be produced to invite more sharing among the audience. This requires the news outlets to produce more engaging content to attract the audience's attention and interest within a few seconds. It is therefore not surprising to see a large number of emotional sharing activities are presented since emotional content can

better engage the audience on social media news (Wahl-Jorgensen, 2020) and possibly generate more sharing of news. As a result, entertainment has become an emerging news value in the production of news on social media (Harcup & O'Neill, 2017; Vázquez-Herrero et al., 2020). Finally, the affordance of multimodal editability allows users to draw on rich verbal and visual resources to create their short videos easily, as compared with the technical complexity involved in producing television news. As a "camera first" technology, TikTok allows users to create visual content before verbal content, and users can edit their videos before uploading. Verbal content can then be added as voice-overs and can also be edited before posting. The high level of editability allows users to manipulate the multimodal resources for different communicative purposes.

The identification of social, political and educational functions and the analysis of the discursive features also provide new understandings of social media news as a form of discursive governance. The active use of social media and the personalised and emotional style reflect the Chinese government's new way of discursive governance, or what Wang (2018, p. 140) calls a distinct "brand" of Chinese governance in the digital media environment. As the internet and mobile phones have penetrated most parts of China, the younger generation has ready access to a wide range of information, especially consumer-driven, entertaining and promotional information, and is simply not interested in formal and dry news reports (cf. Feng, 2019a). Moreover, social media is bringing new changes to the traditional one-way top-down communication typical in official television news and "has moved China closer to a level playing field of communication" (Cao, 2014, p. 11). In this context, CCTV News has to integrate emotional and personalised elements into its politics-oriented and serious reporting style to achieve multiple functions under the specific situation of the epidemic. As noted by Brady (2009, p. 437), China's public communication "has deliberately absorbed the methodology of political public relations, mass communications, social psychology, and other modern methods of mass persuasion commonly used in Western democratic societies, adapting them to Chinese conditions and needs". In the news we analysed, the government's effective leadership is often invoked through showcasing the dedication of doctors, the good spirits of patients and people's joy over the improved pandemic situation, instead of being directly praised. In this way, discursive governance is enacted in a more subtle way, using emotional appeal rather than power to shape the perception of the public.

Conclusion

This study provides new understandings of the multiple functions of social media news in the context of the COVID-19 pandemic in China. Drawing on the multimodal discourse analysis approach, it explicates the social semiotic activities of the news and how the activities are realised

through multimodal resources. Drawing on Matthiessen's (2009) register typology, this study maps out the distribution of social semiotic activities and the mixture patterns of different activities. It finds that sharing is the most prominent activity, which exceeds the reporting activity and consequently distinguishes social media news from traditional news. Moreover, the news posts also undertake the functions of expounding pandemic-related knowledge and recommending appropriate protective measures. Three types of interdiscursivity are identified, namely, the presence of multiple activities in different news posts, the juxtaposition of different activities in one news post and the blending of activities mixed in one news post. In terms of the realisation of social semiotic activities, the news posts are characterised by the prevalence of personalised and emotional content in language and images. This study provides new understandings of social media news as a form of discursive governance for managing the public health crisis, which performs social, political and educational functions. It also explains how the multiple communicative functions are shaped by the affordances of the social media platform of TikTok and the social-cultural context in contemporary China. Methodologically, this study provides a framework to explicate the social semiotic activities involved in social media news and their multimodal realisation. For future research, this framework can be applied to exploring the complex communicative purposes and discursive features of different forms of communication on social media.

References

Agrawal, A., & Gupta, A. (2020). The utility of social media during an emerging. infectious diseases crisis: A systematic review of literature. *Journal of Microbiology and Infectious Diseases*, *10*(04), 188–198. https://doi.org/10.5799/jmid.839415

Al-Rawi, A. (2019). Viral news on social media. *Digital Journalism*, *7*(1), 63–79. https://doi.org/10.1080/21670811.2017.1387062

Altheide, D. L., & Snow, R. P. (1979). *Media logic*. Sage Publications.

Andersen, T. H., & van Leeuwen, T. J. (2017). Genre crash: The case of online shopping. *Discourse, Context & Media*, *20*, 191–203. https://doi.org/10.1016/j.dcm.2017.06.007

Bhatia, V. K. (2017). *Critical genre analysis: Investigating interdiscursive performance in professional practice*. Routledge. https://doi.org/10.4324/9781315690315

Blaagaard, B. B. (2013). Situated, embodied and political: Expressions of citizen journalism. *Journalism Studies*, *14*(2), 187–200. https://doi.org/10.1080/1461670X.2012.718547

Brady, A. M. (2009). Mass persuasion as a means of legitimation and China's popular authoritarianism. *The American Behavioral Scientist*, *53*(3), 434–457. https://doi.org/10.1177/0002764209338802

Cao, Q. (2014). Introduction: Legitimisation, resistance and discursive struggles in contemporary China. In Q. Cao, H. Tian, & P. Chilton (Eds.), *Discourse,*

politics and media in contemporary China (pp. 1–21). Benjamins. https://doi. org/10.1075/dapsac.54.01int

Chen, Y., Zhang, Y., Xu, Z., Wang, X., Lu, J. & Hu, W. (2019). Avian Influenza A (H7N9) and related internet search query data in China. *Scientific Reports*, 9(1), 10434–10439. https://doi.org/10.1038/s41598-019-46898-y

Fairclough, N. (1992). *Discourse and social change*. Polity Press.

Feng, D. (2013). National voice: A discourse analysis of China central television's news simulcast. *Discourse & Communication*, 7(3), 255–273. https://doi.org/ 10.1177/1750481313487619

Feng, D. (2014). News field or news studio: A comparative study of the broadcast structure between BBC News at Ten and CCTV News Simulcast. *Journal of Chongqing University of Technology (Social Science)*, 28(1), 25–30. https:// doi.org/10.3969/j.issn.1674-8425(s).2014.01.006

Feng, D. (2017). Representing ordinary people: Experiential interview fragments in CCTV News. *Text & Talk*, 37(2), 165–188. https://doi.org/10.1515/ text-2017-0002

Feng, D. (2019a). Analyzing multimodal Chinese discourse: Integrating social semiotic and conceptual metaphor theories. In C. Shei (Eds.), *The Routledge handbook of Chinese discourse analysis* (pp. 65–81). Routledge.

Feng, D. (2019b). Interdiscursivity, social media and marketized university discourse: A genre analysis of universities' recruitment posts on WeChat. *Journal of Pragmatics*, 143, 121–134. https://doi.org/10.1016/j.pra gma.2019.02.007

Fletcher, R., & Nielsen, R. K. (2018). Are people incidentally exposed to news on social media? A comparative analysis. *New Media & Society*, 20(7), 2450– 2468. https://doi.org/10.1177/1461444817724170

Fu, K. W., Liang, H., Saroha, N., Tse, Z. T. H., Ip, P. & Fung, I. C. H. (2016). How people react to Zika virus outbreaks on Twitter? A computational content analysis. *American Journal of Infection Control*, 44(12), 1700–1702. https://doi.org/10.1016/j.ajic.2016.04.253

Gui, X., Wang, Y., Kou, Y., Reynolds, T. L., Chen, Y., Mei, Q. & Zheng, K. (2017). Understanding the patterns of health information dissemination on social media during the Zika outbreak. *AMIA Annual Symposium Proceedings*, 820–829. https://pubmed.ncbi.nlm.nih.gov/29854148/

Harcup, T., & O'Neill, D. (2017). What is news? *Journalism Studies*, 18(12), 1470–1488. https://doi.org/10.1080/1461670X.2016.1150193

Hou, J. (2021). "Our Service": Normalizing CCTV's institutionalized practices through Chunyun discourse. *Journalism*, 22(7), 1851–1869. https://doi.org/ 10.1177/1464884919828508

Househ, M. (2016). Communicating Ebola through social media and electronic news media outlets: A cross-sectional study. *Health Informatics Journal*, 22(3), 470–478. https://doi.org/10.1177/1460458214568037

Khatri, P., Singh, S., Belani, N. K., Leng, Y. Y., Lohan, R., Wei, L. Y. & Teo, W. Z. (2020). YouTube as source of information on 2019 novel coronavirus outbreak: A cross sectional study of English and Mandarin content. *Travel Medicine and Infectious Disease*, 35, 101636. https://doi.org/10.1016/ j.tmaid.2020.101636

Korkut, U., Mahendran, K., Bucken-Knapp, G. & Cox, R. H. (Eds.). (2015). *Discursive governance in politics, policy, and the public sphere*. Palgrave Macmillan.

Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design*. Routledge.

Lamot, K. (2021). What the metrics say. The softening of news on the Facebook pages of mainstream media outlets. *Digital Journalism*, 1–20. https://doi.org/10.1080/21670811.2021.1974917

Liu, B. F., & Kim, S. (2011). How organizations framed the 2009 H1N1 pandemic via social and traditional media: Implications for U.S. health communicators. *Public Relations Review*, *37*(3), 233–244. https://doi.org/10.1016/j.pubrev.2011.03.005

Logi, L., & Zappavigna, M. (2021). A social semiotic perspective on emoji: How emoji and language interact to make meaning in digital messages. *New Media & Society*. https://doi.org/10.1177/14614448211032965

Long, Q., & Shao, L. (2021). Beyond propaganda: The changing journalistic practices of China's party press in the digital era. *Journalism Practice*, 1–15. https://doi.org/10.1080/17512786.2021.1949628

Martin, J. R., & White, P. R. (2005). *The Language of evaluation*. Palgrave Macmillan.

Matthiessen, C. M. I. M. (2009). Multisemiosis and context-based register typology: Registerial variation in the complementarity of semiotic systems. In E. Ventola & A. J. Moya Guijjaro (Eds.), *The world told and the world shown: Multisemiotic issues* (pp. 11–38). Palgrave Macmillan.

Matthiessen, C. M. I. M. (2013). Applying systemic functional linguistics in healthcare contexts. *Text & Talk*, *33*(4–5), 437–466. https://doi.org/10.1515/text-2013-0021

Nagpal, S. J. S., Karimianpour, A., Mukhija, D., Mohan, D. & Brateanu, A. (2015). YouTube videos as a source of medical information during the Ebola hemorrhagic fever epidemic. *Springerplus*, *4*(1), 1–5. https://doi.org/10.1186/s40064-015-1251-9

Ngai, C. S. B., Singh, R. G., Lu, W. & Koon, A. C. (2020). Grappling with the COVID-19 health crisis: Content analysis of communication strategies and their effects on public engagement on social media. *Journal of Medical Internet Research*, *22*(8), e21360. https://doi.org/10.2196/21360

Odlum, M., & Yoon, S. (2015). What can we learn about the Ebola outbreak from tweets? *American Journal of Infection Control*, *43*(6), 563–571. https://doi.org/10.1016/j.ajic.2015.02.023

People. (2020, 28 December). 2020 National Party Newspaper Convergence Communication Index Report. http://yjy.people.com.cn/n1/2020/1228/c244560-31981230.html

Roy, M., Moreau, N., Rousseau, C., Mercier, A., Wilson, A. & Atlani-Duault, L. (2019). Ebola and localized blame on social media: Analysis of Twitter and Facebook conversations during the 2014–2015 Ebola epidemic. *Culture, Medicine and Psychiatry*, *44*(1), 56–79. https://doi.org/10.1007/s11013-019-09635-8

Sampietro, A. (2016). Exploring the punctuating effect of emoji in Spanish WhatsApp chats. *Lenguas Modernas*, *47*, 91–113.

SCIO. (2020, 7 June). Fighting COVID-19: China in Action. www.scio.gov.cn/zfbps/32832/Document/1681809/1681809.htm

Sohn, D. (2011). Anatomy of interaction experience: Distinguishing sensory, semantic, and behavioral dimensions of interactivity. *New Media & Society*, *13*(8), 1320–1335. https://doi.org/10.1177/1461444811405806

Trilling, D., Tolochko, P. & Burscher, B. (2017). From newsworthiness to shareworthiness: How to predict news sharing based on article characteristics. *Journalism & Mass Communication Quarterly*, *94*(1), 38–60. https://doi.org/10.1177/1077699016654682

Van Dijck, J., & Poell, T. (2013). Understanding social media logic. *Media and Communication*, *1*(1): 2–14. https://doi.org/10.12924/mac2013.01010002

Vázquez-Herrero, J., Negreira-Rey, M. C. & López-García, X. (2020). Let's dance the news! How the news media are adapting to the logic of TikTok. *Journalism*. https://doi.org/10.1177/1464884920969092

Wahl-Jorgensen, K. (2020). An emotional turn in journalism studies. *Digital Journalism*, *8*(2), 175–194. https://doi.org/10.1080/21670811.2019.1697626

Wang, J. (2018). "Lifeworld" representation of political measures in president Xi Jinping's discourse. *Poznan Studies in Contemporary Linguistics*, *54*(3), 407–429. https://doi.org/10.1515/psicl-2018-0016

Welbers, K., & Opgenhaffen, M. (2019). Presenting news on social media: Media logic in the communication style of newspapers on Facebook. *Digital Journalism*, *7*(1), 45–62. https://doi.org/10.1080/21670811.2018.1493939

Wong, R., Harris, J. K., Staub, M. & Bernhardt, J. M. (2017). Local health departments tweeting about Ebola: Characteristics and messaging. *Journal of Public Health Management and Practice*, *23*(2), e16–e24. https://doi.org/10.1097/PHH.0000000000000342

Xi, J. (2020, 23 February). Remarks at the COVID-19 conference on coordination and implementation of the COVID-19 plan for disease control and economic and social development. Xinhua News Agency. http://xinhuanet.com/politics/2020-02/23/c_1125616016.htm

Xu, Y. (2019). *Interdiscursivity, multimodality and corporate communication on social media: A social semiotic analysis of courier companies' weibo posts* [Unpublished doctoral dissertation]. Hong Kong Polytechnic University. https://theses.lib.polyu.edu.hk/handle/200/10500

Yin, L., & Wang, H. (2010). People-centred myth: Representation of the Wenchuan earthquake in China Daily. *Discourse & Communication*, *4*(4), 383–398. https://doi.org/10.1177/1750481310381581

Zhang, Z. (2021). Infrastructuralization of Tik Tok: Transformation, power relationships, and platformization of video entertainment in China. *Media, Culture & Society*, *43*(2), 219–236. https://doi.org/10.1177/0163443720939452

Zhou, Y., & Huang, Y. (2015). Xinwen Lianbo: From information vehicle to political ritual. *Research on Broadcasting and Television Communication*, *11*, 105–124. https://doi.org/10.13495/j.cnki.cjjc.2015.11.009

Zhu, C., Xu, X., Zhang, W., Chen, J. & Evans, R. (2020). How health communication via Tik Tok makes a difference: A content analysis of Tik Tok accounts run by Chinese Provincial Health Committees. *International Journal of Environmental Research and Public Health*, *17*(1), 192. https://doi.org/10.3390/ijerph17010192

10 Exploring strategies of multimodal crisis and risk communication in the business and economic discourses of global pandemic news

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Introduction

This chapter intends to broaden the range of methodological approaches to multimodal communication by proposing an interdisciplinary approach when investigating multimodal crisis and risk communication in the business and economic discourses that have appeared in the news media during the first months of the coronavirus disease (COVID-19) pandemic. The outbreak of this virus spread quickly across the globe, leading the World Health Organization (WHO) to declare a global pandemic on 11 March 2020. Since then, this exceptional global crisis has continuously attracted the interest of institutions, scientists, health professionals, businesses, as well as of academics from different fields, interested in debating present and potential risks and solutions across various media. However, global crises today become primarily staged in the world's news media. Consequently, it is the news media that significantly contribute to these crises' construction and understanding by the global audience (Cottle, 2009). The news media's engagement in multimodal discursive reconstructions of reality has a fundamental effect upon the public understandings of and reactions to a crisis, as it reflects the range of newsworthy social actors and actions. Furthermore, through these reconstructions of the news media, the selected newsworthy social actors attain specific risk-related roles, and this enhances the global audience's chances to make sense of the crisis. Taking the COVID-19 pandemic as our context of reference, we are especially interested in explaining the fundamental role of multimodal communication in this crisis situation when social actors such as risk informers (e.g. journalists), risk bearers (e.g. consumers), risk researchers (e.g. economists) and risk regulators (e.g. politicians) enter the arena of global news with multiple discursive agendas. By employing this taxonomy of risk-related roles, it is possible to explain how the news media's discursive selection of specific social actors with specific expertise and experiences contributes to making sense of the pandemic's risks and their impacts from multiple perspectives.

As we acknowledge that "discourse is a socially constructed knowledge of some social practice" (van Leeuwen, 2008, p. 6) and that "meaning is socially constructed and crises are no exception" (Coombs, 2012, p. 19), we combine the social semiotic approach to multimodal discourse (van Leeuwen, 2008, 2018a, 2018b) with approaches to crisis and risk communication (Coombs, 2012; Heath & Palenchar, 2016; Raupp, 2018) to capture the complexity of the multimodal discursive processes through which global news media construct business and economic reality during the pandemic crisis. The news media's strategies of multimodal meaning creation influence the pandemic crisis sensemaking of global publics through their constitutive functions and discursive power.

Combining multimodal discourse research with theoretical perspectives from the fields of crisis communication and risk communication has a twofold relevance. First, crisis communication and risk communication are becoming increasingly multimodal because of the contemporary new media environment. Second, multimodal discourse research can nuance its conceptual frameworks as well as strengthen its methodological validity by showing how it can be employed in and adapted to global crisis contexts too. Multimodal communication in a particular context like the one sketched above is complex and multifaceted, as it goes beyond national borders, spreads rapidly and becomes the object of a global and multivocal social arena. In the current pandemic crisis context, focusing on global news media's multimodal discursive reconstructions of the continuously unpredictable developments of this unprecedented crisis has clear relevance. Our focus on the business and economic discourses is motivated by the fact that businesses and economies have been profoundly disrupted by the global pandemic crisis, causing in turn a chain of negative consequences upon all the other domains of social life. As a consequence, making sense of the significant toll that the pandemic crisis has taken on businesses and economies has become a priority for global news media.

Therefore, we introduce and explain an analytical model that helps reveal the ways in which multimodal business and economic discourses in global news media legitimate and evaluate various versions of the unpredictable reality across blurred national borders. To clarify the dynamic multimodal processes of meaning creation during the current pandemic crisis, global news videos focused on explaining the business and economic consequences of the pandemic outbreak have been selected and explored during spring 2020 from the websites of three international news channels: *CNN*, *The Economist* and *Financial Times*.

Due to the fact that previous research (e.g. Gabore, 2020; Ng et al., 2021; Tian & Stewart, 2005) has mainly employed textual analysis when focusing on similar public health crises and related news media representations, we consider that there is an opportunity to expand present research endeavours. With the aim to fill this research gap, this chapter shows how multimodal meaning creation produced by global

news media in business and economic discourses during crisis times can be systematically investigated and interpreted. The research questions guiding our investigation are as follows:

- RQ1   How do the global news media recontextualise multimodally social actors in the business and economic discourses of their pandemic communication?
- RQ2   What discursive strategies do the global news media employ to recontextualise multimodally social actions in their pandemic communication?

To answer these questions, our research is grounded in the idea that there is plenty of opportunity to broaden our knowledge on multimodality by combining it with other theoretical perspectives in a way that can contribute both to the advancement of this field of enquiry in itself and to its applications in other research domains. Thus, this study is meant to extend multimodal research by shedding light on how multimodal discourse analysis can be enriched by incorporating conceptual frameworks belonging to crisis and risk communication. By offering an empirically grounded account of the ways in which social actors and social actions are multimodally recontextualised in global news discourses around the pandemic crisis and related business and economic consequences, this chapter intends to complement and advance research done across disciplinary boundaries.

Literature review

The following section reviews and relates central notions and perspectives from crisis communication and risk communication literatures that form the conceptual basis of our analytical model focused on global news media's multimodal meaning creation in pandemic communication.

Review of crisis communication literature

Attention towards the topics of risk and crisis has become particularly prominent in the twentieth century as a result of iconic dramatic events and larger discussions among business experts, economists and society at large related to industrial processes, nuclear weaponry, energy production, chemicals and environmental impact (Heath, 2018). More recent events such as the Fukushima Nuclear Power Plant disaster (2011) and the current global pandemic crisis are now eliciting greater concern all over the world, while also showing how risk and crisis events have become increasingly international and multicultural in their nature, perception and impact (Heath & Palenchar, 2016).

A "crisis" refers to a non-routine, specific event (Reynolds & Seeger, 2005). Because of the diversity of crisis types, actors and contexts, there

exist multiple definitions of and perspectives on the concept of "crisis" that have been developed in scholarly literature over the years. In his extensive research on crisis communication and management, Coombs (2018) generally conceptualises a crisis as a breakdown in a system able to generate shared stress. From this general understanding of crisis, three distinct lines of research have emerged over time focusing on: *Disasters*, which are large-scale disruptions to systems that necessitate management and synchronisation among multiple responding entities; *public health emergencies*, which concern community health; and *organisational crises* (Coombs, 2018). While government agencies are the central actors in disaster and public health emergency crises, such crises also have implications for organisations. Similarly, organisational crises have an impact on business and economic realms and consequently on other social actors and society at large.

Much of the crisis research has focused on organisational crises (e.g. Coombs, 2012; Frandsen & Johansen, 2017). Here crisis definitions abound. Fearn-Banks (1996), for example, defines a crisis as "a major occurrence with a potentially negative outcome affecting an organisation, company, or industry, as well as publics, products, services or good name. It interrupts normal business transactions and can sometimes threaten the existence of the organisation" (p. 1). Seeger, Sellnow and Ulmer (1998) phrase it instead as "a specific, unexpected and non-routine organisationally based event or series of events which creates high levels of uncertainty and threat or perceived threat to an organisation's high priority goals" (p. 233). Alternatively, Coombs (2007) understands a crisis as "the perception of an unpredictable event that threatens important expectancies of stakeholders and can seriously impact an organisation's performance and generate negative outcomes" (pp. 2–3). Looking at these various definitions, we can draw out some common elements of what characterises any crisis: crises are *perceptual* in nature; are *sudden, unusual* occurrences that cannot be predicted; are *major, serious* events that generate *stress and uncertainty* and, in the end, can have significant negative outcomes if not managed properly. Apart from that, crisis scholars also claim that we are living in a "crisis society" (Frandsen & Johansen, 2017). This claim is motivated by the fact that we not only use the word "crisis" and ascribe to crises more importance than ever before, but also the number of crises is constantly on the rise, producing a significant impact on business and economic discourses.

In this context, crises, no matter the type, actors and circumstances involved, have a fundamental *communicative dimension*. Heath and Millar (2004) point at crises as rhetorical problems because they demand a response from those connected to the critical situation. More broadly, crisis communication can be defined as "the collection, processing, and dissemination of information required to address a crisis situation" (Coombs, 2012, p. 20). Based on this general definition, the two sub-categories of crisis communication further include: Crisis knowledge

management, that is, all those processes aimed to collect, make sense and then share information around a crisis; and stakeholder reaction management, that is, the actual communicative response that is spread and that eventually affects the perceptions of stakeholders. Recently, crisis scholars have highlighted the *multivocality* involved in crisis communication and meaning construction. Frandsen and Johansen (2017) have put forth the concept of a "rhetorical arena", a social space that opens up when a crisis occurs and in which multiple voices communicate to, with, past, against or about each other. This theory emphasises the patterns of interaction between various voices that co-construct the crisis, variously including institutions, political actors, citizens, organisations, news media and so on.

In particular, news media have been assigned the role of very active crisis voices who "attempt to intentionally alter how people attribute meaning" (Smerek, 2011, p. 81). In this chapter, while acknowledging the multiplicity of voices in the rhetorical arena of crisis situations, we focus on news media because of their central role as crisis sense-makers when representing and recontextualising social actors and actions. According to Hellgren et al. (2002), "the media is a sense-maker in that it takes part in developing a meaningful framework for understanding complex phenomena" (p. 123).

The rhetorical and multivocal aspects of crises are particularly central in the case of public health emergencies and pandemic crisis communication. The general purpose of crisis communication in a pandemic is to prepare and instruct publics to react to the crisis with specific protective behaviours, reassure them psychologically and keep them updated about the developments and outcomes of the critical situation (Lim et al., 2018). Again, research shows the leading role played by the news media in public health emergencies and pandemic crisis communication (O'Hair, 2018; Reynolds & Seeger, 2005). Health information consumers with high health involvement are more likely to use active news media channels such as newspapers and magazines (Avery, 2010). Additionally, the same government agencies and public health authorities acknowledge and take advantage of the gatekeeping role of the news media to reach the public and ensure effective communication (Holmes et al., 2009). Yet, previous research on news media representations of public health crises (e.g. Tian & Stewart, 2005) and specifically of the current global pandemic crisis (e.g. Gabore, 2020; Ng et al., 2021) have generally limited their focus to textual analysis, neglecting the opportunity to explore and explain the fundamental role of multimodal communication in such crisis situations where global news media enter a dynamic social arena with multiple discursive agendas. Furthermore, although knowledge about business and economic consequences has been multimodally communicated in relation to this pandemic crisis context, crisis communication research has ignored them until now. Social semiotic approaches to multimodal crisis discourses instead have started to be adopted in studies related to

other types of crises (e.g. Höllerer et al., 2018; Maier, 2020; Maier & Ravazzani, in press; Ravazzani & Maier, 2022). Taking stock of all this, next we turn our attention to risk communication research, its connection to crisis communication research and its understanding of (mis)communication in a pandemic crisis context.

Review of risk communication literature

Within the broad field of crisis research, crisis is also conceived as the concrete manifestation of risk (Heath, 2018). From this perspective, emphasised by both crisis and risk scholars, crisis and risk communication are intertwined, as a crisis occurs when a risk is manifested (Heath & O'Hair, 2009; Sellnow, 2015). Simultaneously, it is also claimed that the "risk society and crisis society are two sides of the same coin" (Frandsen & Johansen, 2017, p. 21). If crisis scholars have only recently started to conceptualise the crisis society phenomenon (Frandsen & Johansen, 2017), sociological risk research has coined the term Risk Society decades ago highlighting what characterises the risks of our late modern society: The new risks are global, potential and invisible (Beck, 1992). Risk society theory emphasises that contemporary risks are triggered by the processes of modernisation and globalisation themselves (Raupp, 2018). Such modern risks, for instance pandemics and environmental harms, do not stop at national borders, and influence both individual businesses and the whole global economy; they can spread rapidly and become the object of attention and discussion in a global and multivocal social arena. This more focused perspective on crisis as the concrete manifestation of risk can serve as an explanatory framework in this chapter as it offers the possibility of employing the conceptual tools related to risk-related actor roles in the explanation of the multimodal meaning creation in the communication strategies of global pandemic news.

Risk communication research agrees upon the fact that "risk communication's ground state is uncertainty" (Palenchar et al., 2014, p. 192). As such, uncertainty has to be communicatively acknowledged and dealt with. In the present pandemic crisis context, the processes of characterising risks and communicating about them have become more complex. Simultaneously, risk communication has become common and almost routine across several media platforms. Due to this situation, risk communication research has actively responded to the rapidly evolving communicative imperatives caused by this dynamic global pandemic crisis. According to the researchers affiliated with the WHO, risk communication is "the exchange of real-time information, advice and opinions between experts and people facing threats to their health, economic or social being" (WHO, 2020b). Taking also into consideration that, in the present pandemic crisis context, effective risk communication involves more than ever the "identification and management of rumors

and misinformation" too, the WHO has also now declared the existence of a "massive infodemic" (WHO, 2020a) that has to be unremittingly dealt with. This has also been acknowledged by new risk communication research that defines this large-scale and unprecedented event, COVID-19, as the first true "infodemic" (Gao & Basu, 2020) and the "viral virus" (Levick, 2020) of the social media era.

With this as background, recent risk communication research has also coined a new term, "the multi-layered risk of misinformation" (Krause et al., 2020, p. 2), to explain how and why the COVID-19 infodemic interacts with the risks of the pandemic itself, challenging all the various social actors involved in risk communication in today's multivocal social arena. The rapidly evolving knowledge about the virus, the ongoing mixed messages and the badly communicated uncertainty across multiple dimensions have created a communicative "fog of pandemic" (Balog-Way & McComas, 2020, p. 2). This phenomenon has eroded the trust of the general public in the information provided by a wide range of social actors, ranging from experts belonging to various domains (e.g. health, business, economics) to news media reporters and government representatives. As "the uncertainties are too large to make accurate estimates and predictions" (Aven & Bouder, 2020, p. 4), and the risk understandings are based on different perspectives, these social actors are even more challenged when laypersons with various backgrounds, priorities and interests also enter the multivocal social arena. This is a problematic situation because these "different actors must fulfill their responsibility according to their roles and keep the communication network running" (Zhang et al., 2020, p. 10) in a timely and explicit manner to provide effective risk communication.

This means that global news media have to legitimately position themselves as trustful social actors that can identify and address knowledge inconsistencies and bridge the knowledge gaps appearing among all the other social actors. Similar to crisis communication research, risk communication research related to the pandemic also recognises the relevance of proper sensemaking processes facilitated by the news media as in the contemporary media landscape, especially in the social media context, "impressions are formed and mediated by multidirectional interactions and exchanges between many interlocutors who may have varying opinions" (Wardman, 2020, p. 23). Furthermore, risk communication research related to the pandemic also acknowledges that the news media's images and graphics play a decisive role in shaping the pandemic's perception as they support processes of imagination and identification (Wiedemann & Dorl, 2020). However, a focus on the multimodal character of risk communication related to the global pandemic crisis in the news media is still absent. Furthermore, as in the case of crisis communication research, there is still a scarcity of risk communication studies focused on multimodal discourses related to the business and economic consequences of this crisis. As a consequence, this study is focused on

identifying and explaining the multimodal communication strategies adopted by global news media in the present pandemic crisis context when engaging in processes of sensemaking related to risks with high levels of uncertainty that involve a wide range of social actors, from scientists to business experts and economists, and a variety of social actions.

Method

With the purpose of showing how multimodal meaning creation in risk and crisis communication can be systematically scrutinised and interpreted, we collected multimodal data in the form of global news videos aiming to explain the business and economic consequences of the pandemic outbreak, therefore considering the beginning of the public health emergency in spring 2020.

Data selection criteria included: The timeframe, and more precisely 11 March 2020 to 1 May 2020; and the content focus, that is, the business and economic consequences of the pandemic outbreak. The videos were extracted from the websites of three international news channels: *CNN* (https://edition.cnn.com/); *The Economist* (www.economist.com/); and *Financial Times* (www.ft.com/). Three videos were selected for the fine-grained multimodal analysis, one for each channel: "The Covid-19 economy, explained" (*CNN*, https://edition.cnn.com/videos/business/ 2020/04/08/covid-19-economy-explained-cnngo.cnn-business, 8 April 2020, 12:09); "Covid-19: how bad will it be for the economy?" (*The Economist*, www.youtube.com/watch?v=wUUWoN4LKuE, 3 April 2020, 3:10); and "How coronavirus is hitting global business" (*Financial Times*, www.youtube.com/watch?v=ulW0LMFEcNw, 5 March 2020, 6:32). In the following analysis, the videos will be referred to as V1, V2 and V3, respectively. All global news videos are focused on shedding light on the impact and exceptional pressure exerted by the pandemic crisis on the global economy and on businesses of different types, sizes and countries. In total, we analysed 338 video shots.

The methodological framework of this qualitative study is an interdisciplinary one including approaches selected from crisis communication, risk communication and multimodal discourse studies as summarised in Figure 10.1 and illustrated in more detail in the following.

The approach belonging to crisis communication research that has been adopted in this study is related to an understanding of crisis communication as sensemaking. From this perspective, making sense of a phenomenon involves "labelling and categorizing to stabilise the streaming of experience" (Weick et al., 2005, p. 411). We adopt this understanding as it replicates contemporary approaches to multimodal discourse analysis of crises as represented by the news media (Höllerer et al., 2018; Maier & Ravazzani, in press). We look at crisis sensemaking with specific reference to the recontextualised crisis-related social actions by analysing, for each social action, the *retrospective*, *synchronous* and *prospective*
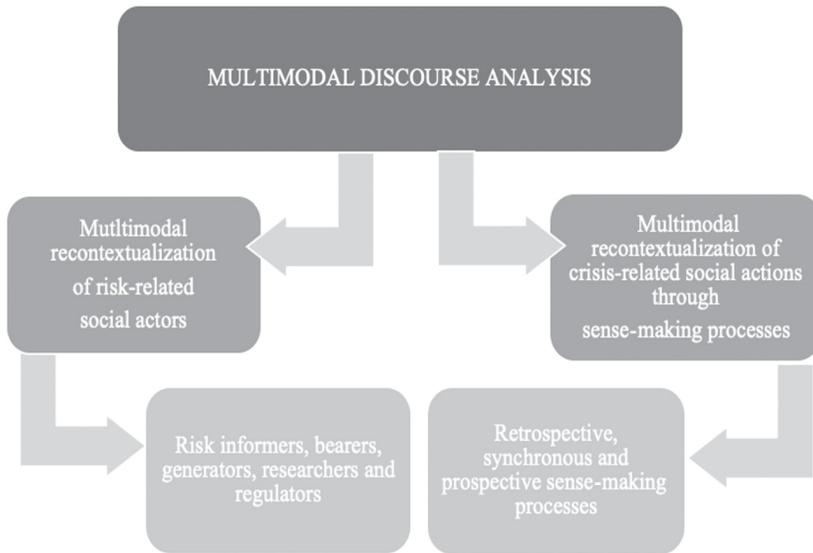
Figure 10.1 Interdisciplinary methodological framework for the study of multi-
　　　　modal social actors and actions.

sensemaking processes that made possible the respective multimodal
recontextualisation. More specifically, the retrospective sensemaking
encompasses the causes and past development of crisis-related actions;
the synchronous sensemaking, the present development and consequences
of crisis-related actions; and the prospective sensemaking, the predictions
of crisis-related actions, probable consequences and possible future
solutions.

　　The approach belonging to risk communication research that has
been adopted in this study is the *social dramaturgical approach* that
allows us to categorise social actors in relation to their risk-related roles
allocated to them in news media discourses (Palenchar et al., 2014;
Palmlund, 2009). According to this approach, "viewing social processes
as performed by agents, always more or less 'in character', enacting
roles – rather than viewing the processes as shaped by particular individ-
uals or particular organisations – facilitates an analysis of structural and
causal relationships in social controversies" (Palmlund, 2009, p. 198).
The social-dramaturgical approach to risk communication features a
series of *dramatis personae*: *risk generators*, *risk bearers*, *risk bearers'*
advocates, *risk researchers*, *risk arbiters* and *risk informers* (Palenchar
et al., 2014). Due to the specificity of our data, our analytical focus has
been on *risk informers*, *risk researchers*, *risk generators*, *risk bearer*, and
risk regulators. We have introduced a new category, the *risk regulators*,
because all the videos include the multimodal representation of a series of

social actors having the power to attenuate or even eliminate the existing and/or potential consequences of the pandemic crisis.

We have embedded these concepts in van Leeuwen's (2008, 2009, 2018a, 2018b) multimodal conceptual framework of critical discourse analysis related to the selective recontextualisation of social actors and social actions from reality into discourses through a series of multimodal transformations. We have adopted van Leeuwen's understanding of discourses as selected recontextualisations of social practices. According to him, "as discourses are social cognitions, socially specific ways of knowing social practices, they can be, and are, used as resources for representing social practices in text" (van Leeuwen, 2008, p. 6). When explaining the multimodal transformations undergone by social actors in the transition from reality to discursive representations, the following concepts have been borrowed from van Leeuwen's conceptual framework (2008, 2009): *Generic* or *specific reference* (representation of actors as classes or identifiable individuals); *association* (representation of actors as groups existing due to common activities or interests); *indetermination* (representation of actors as unspecified individuals or groups); *nomination* or *categorisation* (representation of actors in terms of their unique identity or in terms of identities shared with others); *functionalisation* or *identification* (representation of actors in terms of what they do or what they are); and *personalisation* or *impersonalisation* (representation of actors as human beings or by using abstract or concrete nouns that do not include the feature "human" semantically). We explored the multimodal recontextualisation of social actions by employing concepts related to the evaluative, legitimating or delegitimating discursive strategies (van Leeuwen, 2008, 2018a, 2018b). We have chosen to focus on these strategies because discourses "not only represent what is going on, they also evaluate it, ascribe purposes to it, justify it, and so on, and in many texts these aspects of representation become far more important than the representation of the social practice itself" (van Leeuwen, 2008, p. 6). Thus, the conceptual framework related to the discursive transformations of social actions includes *value-laden adjectives and adverbs in rationalisation legitimations*; *metaphoric abstractions*; *verbal/visual*; *explicit/implicit*; *positive/negative analogies*; and *verbal and visual repetitions*. According to van Leeuwen (2018a), although language plays a significant role in these discursive transformations, they can also take a multimodal form. Such a combined framework allows researchers to pinpoint the ways in which reality is selectively recontextualised in multimodal news media discourses. In the context of this study, we are particularly interested in explaining how the global news media act as sensemakers (Hellgren et al., 2002) through representing, (re)constructing and evaluating social actors and their risk-related roles as well as crisis-related social actions.

Starting with this framework, the design of the fine-grained video analyses has been generated on the acknowledgement that "transcription

and analysis go hand in hand" (Norris, 2019, p. 199) when it comes to working with multimodal data. The videos have been transcribed at the level of frame by employing multimodal transcription conventions (Baldry & Thibault, 2006; Norris, 2011; 2019) in two phases. In the first phase, in the table that had been created for each video, each shot – namely each core multimodal data unit – was identified and annotated without prioritising any of the co-deployed semiotic modes. In the second phase, after each shot had been multimodally transcribed in the first column of the table, the videos' discursive sources for meaning making were reported in the other columns of the table. More specifically, in these columns, we coded the identified and annotated shots according to: Multimodal content; recontextualised social actors and their risk-related roles based on the risk communication perspective; multimodal discursive strategies employed for recontextualising the identified social actors; recontextualised crisis-related social actions as inspired by the crisis communication perspective, specifying for each social action the retrospective, synchronous or prospective sensemaking process that made the respective recontextualisation possible; and multimodal discursive strategies employed for recontextualising the identified social actions.

Table 10.1 reproduces an excerpt of such a data analysis table.

Analysis

In the following, we present the key findings from the fine-grained video analyses by looking at: First, the multimodal recontextualisation of social actors and their risk-related roles; second, the multimodal recontextualisation of crisis-related social actions through sensemaking processes.

Multimodal recontextualisation of risk-related social actors

The global news videos' multimodal representations include a series of actors that are allocated various risk-related roles, as explained by risk communication research. The main *risk informers* are the journalists who convey information related to business and economic consequences brought about by the global pandemic crisis. These *risk informers* are identified through verbal nomination and functionalisation. They have also a strong multimodal presence as they are visualised in close-up or medium shots that punctuate the videos' continuity while they are addressing the viewers with whom they have constant eye contact. Their presence is also maintained verbally when their voice-over commentaries link the video shots that represent other aspects of reality. Even when not on screen, their connection with the viewers is preserved when they address the viewers, namely the implicit *risk bearers*, using, for example, the personal pronoun "*you*", or imperatives such as "*don't wait*" when advising them on what to do to stabilise their economic situation or save

Table 10.1 Excerpt from one of the data analysis' tables

Multimodal content	Recontextualised social actors and their risk-related roles	Multimodal discursive strategies for recontextualizing social actors	Recontextualised crisis-related social actions through sensemaking processes	Multimodal discursive strategies for recontextualizing social actions
Frame from shot 7 (00:10) *Close-up shot of Christine Romans, CNN Chief Business Correspondent:* *"Here is what you need to know to understand this economic turmoil".* *Superimposed text with white letters (name and position)*	Risk informer: Journalist	Visual identification and verbal nomination, identification & functionalisation: "CNN Chief Business Correspondent, Christine Romans"	Synchronous sensemaking process	Theoretical rationalisation (explanation): "Here is what you need to know …" Value-laden metaphor: "Economic turmoil"

their businesses (V1). Apart from *risk informers*, *risk researchers* are also verbally identified as *experts* (V1), *analysts* (V3) or more specifically *economists* (V1, V2). For example: "The reason the economists are so worried this time …" (V1), or "The big question that economists are still trying to grapple with is …" (V2). Such functional identifications of *risk researchers* enter in multimodal clusters by accompanying shots that visualise the situations explained either in moving graphs or still images, or shots that visualise the risk informer in a close-up commenting on the challenges that economists are facing during the global pandemic crisis.

The main *risk generator* identified repeatedly and explicitly is obviously the *virus*. Under the multimodal umbrella of strategies employed to recontextualise this *risk generator*, we identified verbal nominations such as "Covid-19" (V2), "Coronavirus" (V1, V2, V3), "Coronavirus pandemic" (V1, V2) or "Coronavirus outbreak" (V2) that are uttered by both *risk informers* and *risk researchers* and superimposed on shots. When such nominations appear in the journalists' voice-over commentaries, their words accompany the visualisation of the crisis' consequences such as empty shops or screens with commodity prices falling. When impersonalisations are employed, such as "the viral outbreak" (V1, V3), "the deadly virus" or "this pandemic" (V2), the multimodal recontextualisation is also accomplished by visualising its consequences. For example, the long shots of an empty airport (V3) or of closed shops (V2).

There is a wide range of present and past *risk bearers* that are recontextualised by zooming in from *people*, *global/world economy*, *companies*, *global supply chain*, *suppliers*, *investors*, *stock markets*, *multinationals*, *(small and big) businesses (e.g. within retailing, entertainment and hospitality)*, *sectors (e.g. tech and auto)*, *global carmakers*, *airlines*, *luxury brands*, *citizens, tax payers*, *owners*, *workers*, *consumers*, *travellers (Chinese tourists)*, *self-employed*, *staff*, *retirees*, *seniors*, *student loan borrowers*, *tenants*, *independent contractors*, *sole proprietors*, to anonymous but specific individuals. Although some categories are only verbally identified through assimilations and associations, or only visualised, there are *risk bearers* that are also multimodally recontextualised. The multimodal recontextualisations include verbal associations such as "staff" that are set in contrast with a still image visualising a single person working in a home environment (V3). Specific *risk bearers* are rarely given a voice, but their multimodal representation is intensified when they are both visually identified and allowed to express their feelings related to the crisis. For example, when a young man, seemingly a restaurant owner, confesses his despair related to his economic disaster: "I'm worried about having a heart attack" (V1). The multimodal representations of anonymous *risk bearers* labelled as, for example, "individuals" (V1), are accomplished also through cartoon silhouettes. Anonymous *risk bearers* from past crises, such as the 1918 Recession or 1929 Depression, are recontextualised from archive footage

and accompanied by commentaries that use theoretical rationalisations to explain the respective past crises (V1). A prominent category of *risk bearers* are the viewers who are multimodally addressed both directly as mentioned before, or indirectly through the usage of rhetorical questions that are also displayed on screen, such as "How the virus is affecting jobs" (V1). Although such rhetorical questions are recurrently asked by risk informers, they seem to be, in fact, the risk bearers' implicit questions.

The last category of social actors that are multimodally recontextualised in only two of the videos is represented by present and past *risk regulators*. They are visualised in medium and long shots either through impersonalisations or as specific individuals and are always accompanied by the voice-over commentaries of the *risk informers*. For example, accompanying a slightly unbalanced long shot of Trump, the American president, talking to a man in uniform, the voice-over summarises: "Millions out of work, markets plunging, business slams to a screeching halt" (V1). In the case of the American president, the multimodal representations include also medium shots in which he thanks others for certain helping initiatives. In some other cases, political leaders from governments around the world are both visually identified through close ups and given a voice to express the financial measures taken such as "up to € 200bn", "£330bn" and "$2.2 trillion in urgently needed relief" (V2). Moreover, the American federal bank is visually identified in an image of its emblem while the voice-over explains in V1: "Section 13.3 of the Federal Reserve Act grants the federal bank emergency powers". The commentaries related to this *risk regulator* are also accompanied by close ups of banknotes. Such verbal identifications are also reinforced by (low) angle shots of banks' buildings. Voice-over impersonalisation is employed when well-known *risk regulators* are visualised. For example, on the shots visualising the American politician Andrew Cuomo, the voice-over comments: "New York ordered a halt on all mortgage payments for the financially distressed" (V1). Past *risk regulators* are verbally identified through nomination and functionalisation while they are visualised in still images: "Former Fed Chief Ben Bernanke famously talked about this in 2002" (V1).

Table 10.2 provides illustrative examples of the multimodal recontextualisation of social actors.

Multimodal recontextualisation of crisis-related social actions

As mentioned, according to crisis communication research, it is essential to bridge the knowledge gaps appearing among social actors during a crisis through sensemaking processes. When exploring the multimodal discourses of the global news videos in this study, it became obvious that three sensemaking processes have been discursively employed: *Retrospective*, *synchronous* and *prospective*. These processes contribute to explaining multimodally both the causes, development and

Table 10.2 Illustrative examples of the multimodal recontextualisation of social actors

Social actors and their risk-related roles	Multimodal recontextualisation strategies	Examples
Risk informers: Journalists	Verbal & visual nomination, identification & functionalisation	Name and function superimposed on medium shot of the talking journalist: - "Ravi Mattu, Deputy Asia news editor" (V3) - "Philip Coggan, columnist, The Economist" (V2)
Risk researchers: Experts, analysts, economists	Verbal functionalisation & generic visualisation	Function uttered by risk informers while on split screen lonely individuals on empty shopping streets are visualised in still image: "Analysts say a 10 per cent drop in Chinese spending …" (V3).
Risk generator: Coronavirus	Verbal & visual nomination Verbal impersonalisation	Nomination uttered by journalist and visualised in still image: "Airlines hit by the Coronavirus …" (V3). Impersonalisation employed by journalist complementing the medium shot of masked person: "The viral outbreak has taken on consumer confidence" (V1).
Risk bearers: The viewers	Verbal and visual indetermination	Direct address through indetermination: "How the federal stimulus package impacts you" (V1). Indirect address through moving images of people clapping from their balcony or in small groups on the street, followed by those of monuments with thank you messages glowing in the dark: "So although it's terrible, in a way it shows our humanity, that we want to reduce the number of deaths so much, that we're willing to put up with all these restrictions and we're willing to accept a big hit to economic activities" (V2).
Risk regulators: The American president, the government, major banks	Verbal and visual identification	Voice-over and visual identification: "Bank of America announced they would allow customers to defer" (V1).

consequences of the global pandemic crisis at different points in time, and the possible solutions to its business and economic consequences.

The retrospective sensemaking processes have been materialised especially through two types of multimodal theoretical rationalisations that explain or define similar events from the distant or recent past: Evaluative explanations, such as "The US economy has fallen into recession more than 30 times since 1854" (V1); and evaluative definitions combined with analogies, such as "A depression is something vastly different" (V1) or "In the last 75 years, since the second world war, we've seen nothing like this" (V2). These are provided by risk informers while they are speaking on-screen or in a voice-over accompanied by shots replicating visually the main words. Effect-oriented evaluative rationalisations are also multimodally employed by combining the risk informer's voice-over with shots that display animated graphs: "Small businesses have been ravaged by the coronavirus and the economic chaos it has caused" (V1); "Since the coronavirus outbreak, the price of every vital commodity has fallen. We're seeing a lot of these markets hit" (V2); "The tech and auto sectors have been hit especially hard" (V3).

These sensemaking processes that are meant to retrospectively explain the causes or development of crisis-related social actions are accompanied by *synchronous sensemaking processes*. When explaining the present development and consequences of the global pandemic crisis, multimodal effect-oriented rationalisations are again often employed. For example, the effect-oriented rationalisation with its continuous verb form, "companies *are being hit* in three key ways" (V3), is heard while close-up images of individual risk bearers are displayed on-screen. Another example of multimodal effect-oriented evaluative rationalisation combines the risk informer's voice-over with shots that display images of people at work in factories: "But even if a business isn't directly losing out from people staying home, lockdowns are having a devastating ripple effect" (V2). However, multimodal theoretical rationalisations that explain are also recurrently employed. For example, the image of a lonely woman pushing an empty shopping cart in front of a shop window displaying the image of a huge luxury bag is accompanied by the risk informer's voice-over: "Big brands rely heavily on consumers in China" (V3). Another example of multimodal theoretical rationalisation is the moving image of a shop owner closing his shop followed by a close-up of the risk informer explaining "So, the difficult calculation for government is trading off the lives of people who will die from the coronavirus versus the economic damage to the economy" (V2). The synchronous sensemaking processes are also meant to advise risk bearers on how to cope with the consequences of the global pandemic crisis. While maintaining eye contact with the viewers, the risk informer advises the risk bearers by repeatedly using a series of imperatives, such as "remember", "contact", "don't wait" (V1).

Prospective sensemaking processes recontextualise crisis-related social actions that predict either the crisis-related actions' probable consequences or the possible solutions in the future. The materialisation of prospective sensemaking processes is manifested through multimodal effect-oriented rationalisations. For example, the still images of car workers framed by major car logos are complemented by the risk informer's words paraphrasing risk bearers: "Carmakers have all said coronavirus closures would hit their just-in-time manufacturing processes" (V3). When explaining the probable economic consequences for companies in the retailing, entertainment and hospitality sectors, clusters of shots displaying locked down shops accompany the risk informer's comment: "And many of these companies will have high costs which they'll need to keep meeting" (V2). The consequences are also verbally elucidated by the risk informers through analogies, while moving numbers are displayed on the screen: "It's going to be like the Great Depression" (V1). However, when evaluative questions, such as "Covid-19: how bad will it be for the economy?" (V2), are displayed on the shots of economic city districts, uncertainty is given a voice. Similarly, uncertainty is also evaluatively voiced when almost empty streets are visualised while the risk informer declares: "The true extent of the damage to the world economy will only start to become clear with the speed and strength of its recovery" (V2). When it comes to solutions, individual risk bearers are given a voice while having eye contact with the audience: "The government needs to react and help us get through this" (V1). These sensemaking processes appear also in questions addressed rhetorically by risk informers and implicitly by risk bearers: "What will recovery look like?". This question is materialised on-screen on a background displaying the virus image. However, the sensemaking processes are also materialised by multimodal effect-oriented rationalisations that evaluatively blur the lines between consequences and solutions, suggesting once again the uncertainty that characterises any legitimate scenario. For instance, a series of almost empty streets is visualised while the risk informer declares: "Models looking at America suggests that ending lockdowns would lessen that damage". Then the shot of a man wearing a face mask and looking out the window is accompanied by the rest of the commentary: "but would lead to around 1 million extra deaths" (V2).

Table 10.3 provides illustrative examples of the multimodal recontextualisation of social actions.

Discussion and conclusion

Our analysis offers several points of reflection on the strategies of multimodal crisis and risk communication in the business and economic discourses deployed in global news videos during the first months of the current global pandemic crisis.

Table 10.3 Illustrative examples of the multimodal recontextualisation of social actions

Social actions and sensemaking processes	Multimodal recontextualisation strategies	Examples
Retrospective sensemaking	Multimodal theoretical rationalisation (evaluative explanation) Multimodal effect-oriented evaluative rationalisation Multimodal metaphoric abstraction	"That's only occurred once in American history in 1929" (V1). Words uttered in voice-over by risk informer while the still image of a huge empty airport is on screen: "The outbreak has also grounded corporate travel" (V3). Words uttered on-screen by risk informer with a white line cutting the image of the virus and of a masked health worker in the background: "Coronavirus has sent a shiver down the spine of global economy" (V3).
Synchronous sensemaking	Multimodal effect-oriented rationalisation Multimodal theoretical rationalisation (evaluative explanation)	Words uttered in voice-over by risk informer while they are simultaneously displayed on-screen: "How the federal stimulus impacts you" (V1). Words uttered in voice-over by risk informer while the moving images of international political leaders are displayed on screen: "Europeans and Americans are also being helped by unprecedent government responses" (V2). Words uttered in voice-over by risk informer while the still image of globe with red oceans is displayed on screen with superimposed small images of risk regulators and risk bearers: "Now that the health emergency has spread to every continent, the challenge for business is even greater" (V3).
Prospective sensemaking	Multimodal effect-oriented evaluative rationalisation Multimodal theoretical rationalisation (evaluative explanation)	Shots of closed restaurants and close-ups of hands packing fast food elaborate on voice-over commentary: "The money will be given out on a first come first served basis" (V1). Words uttered in voice-over by risk informer while the moving images of an almost empty big city crossroad seen from above is displayed on-screen: "Year-long lockdowns would cost America and the euro zone perhaps a third of their GDP" (V2). Still images of Apple's logo and medium or long shots of Chinese workers complement voice-over commentary in still images: "Apple warned that revenues for the first quarter of 2020 would fall short, partly blaming the lockdown of the Chinese factories that build its iPhones" (V3).

When various risk-related social actors are recontextualised from reality into the business and economic discourses in the global news, the multimodal recontextualisation takes various forms. The *risk generator*, that is the virus, is obviously at the centre of such discourses and of the sensemaking processes that have been discursively employed in all videos. The multimodal recontextualisations of this risk generator are meant, in particular, to highlight the dramatic consequences for risk bearers and the implications for risk researchers and risk regulators. The verbal and/or visual identification, nominalisation and functionalisation of *risk informers* are meant to legitimise the validity of their statements and the additional visual information that is displayed on-screen related to other social actors and/or actions. The various multimodal recontextualisations of *risk bearers* as identifiable individuals, unidentifiable individuals or associated groups are meant to witness their existence and role in the pandemic crisis both in specific situations and globally. The recontextualisations of both *risk researchers* and *risk regulators* are meant to legitimise multimodally the sensemaking processes that are employed when crisis-related social actions are in focus. From our interdisciplinary perspective, these findings emphasise the soundness of integrating in multimodal discourse analysis the social dramaturgical approach belonging to risk communication research to distinguish and make sense of the variety of agents and risk-related roles allocated to them in news media discourses (Palenchar et al., 2014; Palmlund, 2009).

The *retrospective*, *synchronous* and *prospective* sensemaking processes are discursively materialised especially through multimodal theoretical or effect-oriented rationalisations that evaluatively clarify the causes, development, probable consequences and possible future solutions of the business and economic havoc created by the global pandemic crisis. These findings underline the validity of adopting, in an interdisciplinary effort, also the sensemaking approach belonging to crisis communication research to label, stabilise (Weick et al., 2005) and interpret complex phenomena such as crises as multimodally represented in news media discourses (Höllerer et al., 2018; Maier & Ravazzani, in press). All in all, these multimodal recontextualisation strategies shape communicatively the viewers' understanding of the global pandemic crisis by enabling or constraining certain sensemaking processes and by including specific risk-related social actors. Such multimodal recontextualisation strategies in global news media discourses have not only communicative functions but also constitutive ones, as certain unsettling versions of reality emerging from the screen are supposed to be accepted by bewildered and worried audiences due to the discursive force of these videos.

The empirical material and the systematic analysis explained in this chapter show that a call for drawing upon a broader set of theoretical perspectives to be included in and combined with multimodality research could be appropriate. In this chapter, combining multimodal discourse research with theoretical perspectives from other fields such as crisis

communication and risk communication has given us the possibility to reveal how social actors and social actions are recontextualised by global news media to make sense of an unprecedented crisis with still incomprehensible risks. Similar interdisciplinary approaches could be influential also in future research, for example by explaining and combatting the dangerous multimodal infodemic (Gao & Basu, 2020; WHO, 2020a) of the present pandemic era that is spreading across all media; as well as by delving into the multiplicity of voices that communicate to, with, past, against or about each other (Frandsen & Johansen, 2017) in virtual discussion arenas such as social media. To conclude, based on the present research endeavour, we consider that such interdisciplinary approaches can complement, reinforce and refine the existing multimodality research agenda.

References

Aven, T., & Bouder, F. (2020). The COVID-19 pandemic: How can risk science help? *Journal of Risk Research*, *23*(7–8), 849–854. https://doi.org/10.1080/13669877.2020.1756383

Avery, E. (2010). Contextual and audience moderators of channel selection and message reception of public health information in routine and crisis situations. *Journal of Public Relations Research*, *22*(4), 378–403. https://doi.org/10.1080/10627261003801404

Baldry, A., & Thibault, P. (2006). *Multimodal transcription and text analysis*. Equinox.

Balog-Way, D. H. P., & McComas, K. A. (2020). COVID-19: Reflections on trust, tradeoffs, and preparedness. *Journal of Risk Research*, *23*(7–8), 838–848. https://doi.org/10.1080/13669877.2020.1758192

Beck, U. (1992). *Risk society: Towards a new modernity*. Sage.

Coombs, W. T. (2007). *Ongoing crisis communication: Planning, managing, and responding*, 2nd ed. Sage.

Coombs, W. T. (2012). Parameters for crisis communication. In W. T. Coombs & S. J. Holladay (Eds.), *The handbook of crisis communication* (pp. 17–53). Wiley-Blackwell.

Coombs, W. T. (2018). Crisis communication. In R. L. Heath & W. Johansen (Eds.), *The international encyclopedia of strategic communication*. Wiley-Blackwell.

Cottle, S. (2009). Global Crises in the News: Staging new wars, disasters and climate change. *International Journal of Communication*, *3*, 494–516. Retrieved 20 November 2020 from: https://ijoc.org/index.php/ijoc/article/view/473/326

Fearn-Banks, K. (1996). *Crisis communication: A casebook approach*. Lawrence Erlbaum Associates.

Frandsen, F., & Johansen, W. (2017). *Organizational crisis communication*. Sage.

Gabore, S. M. (2020). Western and Chinese media representation of Africa in COVID-19 news coverage. *Asian Journal of Communication*, *30*(5), 299–316. https://doi.org/10.1080/01292986.2020.1801781

Gao, K., & Basu, T. (2020). The coronavirus is the first true social-media "infodemic". MIT Technology Review. Retrieved 20 November 2020 from: www.technologyreview.com/s/615184/the-coronavirus-is-the-first-true-social-media-infodemic/?utm_campaign=site_visitor.unpaid.engagem ent&utm_source=facebook&utm_medium=social_share&utm_content= 2020-02-22

Heath, R. L. (2018). Risk management and communication. In R. L. Heath & W. Johansen (Eds.), *The international encyclopedia of strategic communication* (pp. 1–15). Wiley-Blackwell.

Heath, R. L., & Millar, D. P. (2004). A rhetorical approach to crisis communications: Management, communication processes, and strategic responses. In R. L. Heath & D. P. Millar (Eds.), *Responding to crisis: A rhetorical approach to crisis communication* (pp. 1–17). Lawrence Erlbaum.

Heath, R. L., & O'Hair, H. D. (2009). The significance of risk and crisis communication. In M. J. Palenchar & H. D. O'Hair (Eds.), *Handbook of risk and crisis communication* (pp. 5–31). Routledge.

Heath, R. L., & Palenchar, M. J. (2016). Paradigms of risk and crisis communication in the 21st century. In A. Schwarz, M. Seeger, & E. C. Auer (Eds.), *The handbook of international crisis communication research* (pp. 437–446). Wiley-Blackwell.

Hellgren, B., Löwstedt, J., Puttonen, L., Tienari, J., Vaara, E. & Werr, A. (2002). How issues become (re)constructed in the media: Discursive practices in the Astrazeneca merger. *British Journal of Management*, *13*, 123–140. https://doi.org/10.1111/1467-8551.00227

Höllerer, M. A., Jancsary, D. & Grafström, M. (2018). "A picture is worth a thousand words": Multimodal sensemaking of the global financial crisis. *Organization Studies*, *39*(5–6), 617–644. https://doi.org/10.1177/017084061 8765019

Holmes, B. J., Henrich, N., Hancock, S. & Lestou, V. (2009). Communicating with the public during health crises: Experts' experiences and opinions. *Journal of Risk Research*, *12*(6), 793–807. https://doi.org/10.1080/136698 70802648486

Krause, N. M., Freiling, I., Beets, B. & Brossard, D. (2020). Fact-checking as risk communication: The multi-layered risk of misinformation in times of COVID-19. *Journal of Risk Research*, *23*(7–8), 1052–1059, https://doi.org/10.1080/13669877.2020.1756385

Levick, R. S. (2020). Communicating on coronavirus: The first "viral virus" of the social media era. CommPRO. Retrieved 20 November 2020 from: www.commpro.biz/communicating-on-coronavirus-the-first-viral-virus-of-the-social-media-era/

Lim, R. S.-Q., Tan, E. Y., Lim, E. W., Aziz, N. B. A. & Pang, A. (2018). When a pandemic strikes. Toward the social media pandemic communication model. In L. Austin & Y. Jin (Eds.), *Social media and crisis communication* (pp. 253–266). Routledge.

Maier, C. D. (2020). Visual crisis communication. In F. Frandsen & Johansen W. (Eds.), *Crisis communication* (pp. 213–237). De Gruyter.

Maier, C. D., & Ravazzani, S. (in press). Climate crisis communication in global news videos: A multimodal discourse approach to multifaceted knowledge and reaction management. In W. T. Coombs & Holladay S. (Eds.), *Handbook of crisis communication*. Routledge.

Ng, R., Chow, T. Y. J. & Yang, W. (2021). Newsmedia narratives of Covid-19 across 20 countries: Early global convergence and later regional divergence. *PLOS ONE*. https://doi.org/10.1371/journal.pone.0256358

Norris, S. (2011). *Identity in (inter)action: Introducing multimodal (inter)action analysis*. De Gruyter.

Norris, S. (2019). Modal density and modal configurations: Multimodal actions. In C. Jewitt (Ed.), *Routledge handbook for multimodal discourse analysis* (pp. 86–100). Routledge.

O'Hair, H. D. (2018). *Risk and health communication in an evolving media environment*. Routledge.

Palenchar, M. J., Hocke, T. M. & Heath, R. L. (2014). Risk communication and corporate social responsibility. The essence of sound management for risk bearers, generators and arbiters. In Ø. Ihlen, J. Bartlett, & S. May (Eds.), *The handbook of communication and corporate social responsibility* (pp. 188–207). Wiley-Blackwell.

Palmlund, I. (2009). Risk and social dramaturgy. In R. L. Heath & H. D. O'Hair (Eds.), *Handbook of risk and crisis communication* (pp. 192–204). Routledge.

Raupp, J. J. (2018). Risk Society. In R. L. Heath & W. Johansen (Eds.), *The international encyclopedia of strategic communication*.(pp. 1–5). Wiley-Blackwell.

Ravazzani, S., & Maier, C. D. (2022). Visual crisis communication: A social semiotic approach to visual dialogues on social media. In L. Austin & Y. Jin (Eds.), *Social media and crisis communication* (pp. 168–169). Routledge.

Reynolds, B., & Seeger, M. W. (2005). Crisis and emergency risk communication as an integrative model. *Journal of Health Communication*, *10*(1), 43–55. https://doi.org/10.1080/10810730590904571

Seeger, M. W., Sellnow, T. L. & Ulmer, R. R. (1998). Communication, organization and crisis. In M. E. Roloff (Ed.), *Communication yearbook*, *21* (pp. 231–275). Sage.

Sellnow, T. L. (2015). Crisis communication. In H. Cho, T. Reimer & K. A. McComas (Eds.), *The Sage handbook of risk communication* (pp. 288–301). Sage.

Smerek, R. (2011). Sensemaking and sensegiving: An exploratory study of the simultaneous "being and learning" of new college and university presidents. *Journal of Leadership & Organizational Studies*, *18*(1), 80–94. https://doi.org/10.1177/1548051810384268.

Tian, Y., & Stewart, C. M. (2005). Framing the SARS crisis: A computer-assisted text analysis of CNN and BBC online news reports of SARS. *Asian Journal of Communication*, *15*(3), 289–301. https://doi.org/10.1080/0129298050 0261605

van Leeuwen, T. (2008). *Discourse and practice*. Oxford University Press.

van Leeuwen, T. (2009). Critical discourse analysis. In J. Renkema (Ed.), *Discourse, of course. An overview of research in discourse studies* (pp. 277–293). John Benjamin Publishing Company.

van Leeuwen, T. (2018a). Legitimation and multimodality. In R. Wodak & B. Forchtner (Eds.), *The Routledge handbook of language and politics* (pp. 218–233). Routledge.

van Leeuwen, T. (2018b). Moral evaluation in critical discourse analysis. *Critical Discourse Studies*, *15*(2), 140–153.

Wardman, J. K. (2020). Recalibrating pandemic risk leadership: Thirteen crisis ready strategies for COVID-19. Journal of Risk Research. https://doi.org/10.1080/13669877.2020.1842989

Weick, K. E., Sutcliffe, K. M. & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, *16*(4), 409–421. https://doi.org/10.1287/orsc.1050.0133

Wiedemann, P. M., & Dorl, W. (2020). Be alarmed. Some reflections about the COVID-19 risk communication in Germany. *Journal of Risk Research*, *23*(7–8), 1036–1046. https://doi.org/10.1080/13669877.2020.1825984

World Health Organization (WHO) (2020a). Coronavirus disease (COVID-19) pandemic. Retrieved 20 November 2020 from: www.who.int/emergencies/diseases/novel-coronavirus-2019

World Health Organization (WHO) (2020b). Risk communication. Retrieved 20 November 2020 from: www.who.int/risk-communication/background/en/

Zhang, L., Li, H. & Chen, K. (2020). Effective risk communication for public health emergency. *Healthcare*, *8*(1), 64. https://doi.org/10.3390/healthcare8010064

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Part IV

Wider communicative meanings/purposes of COVID-19 discourses

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11 "Stay Alert, Control the Virus, Make Memes"

A multimodal discourse analysis of UK internet memes during the COVID-19 pandemic

Avery Anapol

Introduction

For many people around the world, the early days of the COVID-19 pandemic were defined by sweeping lifestyle changes that were introduced practically overnight. From mask wearing and lockdowns, to social distancing and Zoom calls, the pandemic's impact on communication – both in-person and digitally – is historically unique. The nuances of everyday life amid the coronavirus have been extensively and humorously documented by the creation and distribution of internet memes.

While memes have been popular for some time, the specific set of lifestyle conditions created by the pandemic led to their unprecedented use. Memes fulfilled several social functions at once: a need for social interaction in online spaces, a need for humour as a coping mechanism and, for many, a desire to engage in a discussion of shared experiences and comment on the political response to the virus (Anapol, 2020).

Even before the pandemic, we lived in a world "in which almost every major public event sprouts a stream of memes" (Shifman, 2014, p. 4). Memes are digital artefacts – in the form of captioned images, gifs, videos, dances and more – that became central to communication and discourse in the pandemic, as nearly every aspect of social, professional and cultural interaction moved into fully digital spaces. It is not surprising that memes became a go-to source of entertainment and (mis)information, as well as a coping mechanism. As I observed early on, "memes are an accessible and entertaining way to describe specific, but widely shared sentiments about an unprecedented, shared experience" (Anapol, 2020).

There are many overlapping and cross-disciplinary approaches to the concept of memes. Research comes from numerous fields, including sociology, digital communication, applied linguistics, media studies and others. Most studies credit biologist Richard Dawkins (1976) with coining the term. He considered memes a cultural metaphor for the biological gene due to their replicative and altering nature. Others have argued that

Dawkins's gene metaphor relies too heavily on memes' self-perpetuation, ignoring the agency of individuals in designing and sharing memes. Memes thrive in what media scholar Henry Jenkins (2006) describes as a "participatory culture". This views the contemporary model of media distribution as one in which the traditional "audience" is now encouraged to participate in the creation and distribution of information, blurring the distinction between consumer and producer. Examining memes through a participatory culture lens more accurately reflects the agency used in creating and transmitting these digital artefacts (Conte, 2000, in Milner, 2012).

This study places memes within the field of semiotics, which deals with signs, and sees memes as signs that stand for other things. Semiotician Ivan Fomin writes, "the concept of sign is the metalingual equivalent for both the concepts of gene and meme … [a meme is] a thing that stands for the rules of how a particular social and cultural practice is performed" (Fomin, 2019, p. 333). For this study, I draw from Milner (2012), Fomin (2019) and Shifman (2014) to craft the following definition of memes:

> *User-produced multimodal digital signs that, through replication and recontextualisation, reflect varying discourses.*

The popularity of memes during the COVID-19 pandemic prompted much discussion about whether humour was an appropriate response (Williams, 2020). Memes use humour, often conveyed through an incongruous positioning of image and writing (Dynel, 2016), to communicate their message. The memes shared during the pandemic are no exception, and functioned as multimodal "disaster jokes" – a tool to express humour in response to global disaster as a "collective reaction to a phenomenon that is … experienced collectively through the media" (Kuipers, 2005, p. 82). For individuals, participating in COVID-19 meme culture "can provide some levity and alleviate anxiety during this troublesome time" (Aslan, 2020). There is also a precedent for humorous memes in a public health crisis. "Ebola-chan", a popular meme about the 2014 Ebola outbreak, was "a social response to a lethal epidemic in the digital age" and used humour to foreground the social experience of a pandemic, making it easier for people to cope with the scientific or medical realities (Marcus & Singer, 2017, p. 352). Examining memes in the context of a global crisis can give greater insight into social behaviour and public discourses after the fact.

"Stay Alert, Control the Virus, Save Lives"

This study examines a selection of memes that were created in response to the UK government's "Stay Alert" public health campaign, which was widely ridiculed by the media and the public. These memes were a popular format in which members of the public expressed their feelings

about the government's handling of the pandemic. Using a wide range of semiotic resources, the creators of these memes used humour to draw attention to what many viewed as the government's incompetence in its response to a crisis.

The "Stay Alert" campaign was one of the many ways the UK government used a catchy slogan and visually engaging (bold, colourful) logo to brand its public health messaging during the pandemic. These designs were debuted to the public on television, usually as placards adorning officials' podiums during government press conferences (Byrne, 2020). Between March and May 2020, at least eight different messages or designs were communicated to the public. By the end of the first lockdown, the most prominent and longest lasting message was "Stay Home, Protect the NHS, Save Lives". Its visual representation, with a bright yellow background, red hazard stripes around the border and bold, black text resembled a cautionary traffic safety sign.

On 11 May 2020, six weeks after the UK entered its first period of lockdown, Prime Minister Boris Johnson addressed the nation on television, laying out his plan to bring the country out of lockdown. With this announcement came a shift in messaging: The government was now changing their approach to "Stay Alert, Control the Virus, Save Lives". As Figure 11.1 highlights, the messaging shift was multimodal, with changes to both the phrase itself and the visual representation, with the frame colour changing from red to green.

The new slogan and accompanying image immediately provoked a strong, negative response from the public and rival politicians, with many saying the new guidance was vague and confusing (Middleton & Andrews, 2020). Some critics drew attention specifically to the confusing nature of the colours used:

Figure 11.1 The multimodal shift from "Stay Home, Protect the NHS, Save Lives", to "Stay Alert, Control the Virus, Save Lives".

Source: Images from Public Health England Campaign Resource Centre.

> In the context of signage, green can be seen as "Exit to safety" and yellow as "Warning, don't proceed"; a combination of colours and instructions that are not usually presented this way. This results in a piece of visual communication that is hesitating; unable to pick a side and give clear direction to the public. Leaning on the standardised visual language of "Proceed with Caution" may have been more widely understood.
>
> (Byrne, 2020)

Johnson's Scottish counterpart, First Minister Nicola Sturgeon said, "I don't know what 'Stay Alert' means" (BBC News, 2020), and an analysis conducted by a public relations industry group found that public social media posts represented an overall negative view of the slogan (Hickman, 2020). Despite the backlash, "Stay Alert" remained the primary message in press conferences, on official websites and virus-related signage, and the subject of countless memes parodying or mocking the campaign. By January 2021, nearly a year later, the official messaging had once again returned to the red-bordered "Stay Home, Protect the NHS, Save Lives", conveying a more urgent message considering the emergence of a new, more transmissible variant of the virus and a steep rise in infections. But the memes mocking "Stay Alert" have remained a fixture in UK-based digital culture and will likely persist as a sign of perceived government incompetence during this time.

This study aims to explore more deeply *what* these memes communicate about the government's "Stay Alert" approach, and *how* this is done, through the semiotic choices made by the creators of these memes. It identifies and analyses the multimodal semiotic resources used in a selection of these memes, using concepts from multimodal social semiotics and critical discourse analysis. The following research questions helped guide this process:

- RQ1   How are multimodal semiotic resources used in "Stay Alert" memes to portray the campaign?
- RQ2   What discursive strategies emerge multimodally in the design of the memes?
- RQ3   What do "Stay Alert" memes communicate about the public view of the government in this context?

Theory and methodology

Existing research on memes has tended to focus on their function as communicative or linguistic tools: Speech acts (Grundlingh, 2018), sites of identity construction (DeCook, 2018) and tools for political commentary (Milner, 2012). The memes that were created and shared during the pandemic filled multiple communicative functions typical of memes – they

provided humour and levity (Aslan, 2020; Kuipers, 2005), they explained confusing or new information in a simple way and they allowed people to comment on the political response to the pandemic (Milner, 2013; Ross & Rivers, 2017; Wiggins, 2019).

The focus of this study was on the multimodal semiotic choices made within "Stay Alert" memes, and how these semiotic resources – colour, images, writing, arrangement and others – are used to make meaning. Therefore, a more appropriate theoretical approach is one rooted in multimodal critical discourse studies (Machin, 2013). This approach is similar to multimodal social semiotic analysis, with an added focus on discourse, and "how discourses are communicated, naturalised, and legitimised beyond the linguistic level" (Machin, 2013, p. 347).

Gunther Kress's definition of discourse refers to ways of "being in" and "knowing" about the world (Kress, 2010, p. 69), and views signs as sites where discourses are realised and materialised (Kress, 2010, p. 113). COVID-19 memes are signs where discourses related to the pandemic are materialised. A multimodal critical discourse analytical approach identifies how the different modes and semiotic resources within a text communicate these discourses. Critical discourse analysis has traditionally focused on the linguistic materialisation of these strategies, but semiotic resources other than language may be used in similar ways. Kress and van Leeuwen emphasise the "absolute interrelation of discourse" and mode (Kress and van Leeuwen, 2001, p. 24), so a multimodal approach to discourse analysis addresses questions about what modes are most apt to communicate particular discourses. As Machin notes, "different semiotic resources [allow] the sign maker to do different kinds of work in terms of the way that discourses are realised" (Machin, 2013, p. 350).

A multimodal lens is especially important for examining discourse in digital texts, which "are almost always multimodal, consisting of rich combinations of semiotic modes" (Jones et al., 2015). Memes typically bring in the mode of image and resources of writing, colour and layout, and may therefore communicate more complex ideas than in written discourse alone.

Political commentary and delegitimising discourse

Research from the field of political discourse studies views memes as tools for political commentary and participation in many forms. Memes are useful for political commentary because of their accessibility and spreadability through the internet. This is a consequence of "participatory culture" in which the public do not simply consume preconstructed messages, but shape, share, reframe and remix media in new ways (Jenkins et al., 2013, p. 2). In a participatory culture, individuals may represent their rhetorical interests through the semiotic decision-making involved in making memes. Participants can use memes to comment on any issue, from any standpoint – a varied representation of voices dubbed "pop

polyvocality" (Milner, 2013). Milner found that memes were used by individuals on opposing sides of the Occupy Wall Street movement in a kind of discursive battle through image (Milner, 2013). Milner also notes the similarity between memes and discourse, citing Aunger's description that both are "an idea that becomes commonly shared through social transmission" (Aunger, 2002 in Milner, 2012, p. 30).

Discourse analysis approaches to memes have also found them to be effective multimodal resources for (de)legitimising brands, governments or individuals (Ross & Rivers, 2017, p. 4). Delegitimisation is a discursive strategy based on van Leeuwen's legitimation theory (2007) of how legitimacy is granted to individuals, institutions or traditions. While van Leeuwen mostly attends to (de)legitimisation through language, studies of memes show that (de)legitimisation can occur multimodally. In his framework for (de)legitimising discourse, van Leeuwen (2007) lays out how legitimising language is used by individuals and institutions to maintain the status quo of social practices or positions of power. The framework also shows how language can be used to *de*legitimise individuals, systems or concepts (van Leeuwen, 2007). Existing work in this space has identified memes as texts where (de)legitimising discourses can materialise, particularly in political commentary. One such example is the work of Ross and Rivers (2017). They applied van Leeuwen's framework for delegitimising discourse to political memes from the 2016 US presidential election. Using multimodal discourse analysis, they demonstrated how discursive strategies in image-text memes were used to "delegitimise the target of the meme", in this case, rival candidates Donald Trump and Hillary Clinton, "to bring about [the meme designer's] own desired political result" (Ross & Rivers, 2017, p. 10). Building on their work, as well as studies by Mackay (2013) and Davis et al. (2015), this study aims to identify how the designers of memes use semiotic resources to delegitimise the "Stay Alert" campaign.

Modes and resources

Kress and van Leeuwen (2006) provided the framework and tools for analysing the visual elements of the memes in this study. This text provides a "grammar" of visual design, naming the many ways images communicate meaning. Kress and van Leeuwen apply this grammar to photographs, films and pages in a magazine, but the concepts can be applied to memes, which are also visual representations of the meme designer's interests. Table 11.1 describes a selection of the concepts used by Kress and van Leeuwen that are relevant to the analysis of the "Stay Alert" memes and can give the meme-viewer language to describe how the memes communicate their message.

Memes are multimodal, meaning they combine different modes of communication. The memes analysed in this study used the modes of image, writing and layout, but a meme in the form of a viral video might

Table 11.1 Elements from Kress and van Leeuwen's "grammar" of visual design that can be used to explain how memes (and other images) communicate meaning

Term	Definition
Proximity	The distance between the viewer and semiotic resource
Salience	The brightness of a colour or size of an element to attract a viewer's attention
Framing	Devices such as vectors and empty space used to denote reading or viewing paths
Centrality	The placement of an element in the centre of the text, usually conveys importance
Information value	The meaning of information conveyed in a text based on the placement of a semiotic resource

also use the modes of sound and movement. Like other visual texts, the designs of memes are dependent on the meme designer making choices about the modes and semiotic resources that are most apt for communicating their message. This study takes a social semiotic approach to the multimodal "Stay Alert" memes, aiming to find out how the selection and combination of modes communicates particular discourses about "Stay Alert".

The availability and function of modes used is dependent on social context (Kress & van Leeuwen, 2001). Semiotic resources have different meanings depending on who enacts them, when and where. In memes, the provenance of images and colours – where these resources originated – is likely to be key to their meaning (Kress & van Leeuwen, 2001, p. 10). For example, the use of an image from a horror film might communicate the creator's fear about a concept highlighted in the meme.

The concept of recontextualisation as a principle of meaning making is relevant to the memes in this study. Recontextualisation is the process by which "discourses that originate in one social site … are reshaped so as to fit with the social givens of a new site" (Bezemer and Kress, 2016). Van Leeuwen and Wodak (1999) write that "representation always involves recontextualisation" and "recontextualisation always involves transformation". Memes are dependent on multimodal recontextualisation, as their humour hinges on different users manipulating an image or changing a caption (or both) to suit their own rhetorical needs. All of the memes identified as "Stay Alert" memes recontextualise the original "Stay Alert" messaging or logo, either by placing it in a new context or changing an aspect of it to make a new meaning. This enables political commentary or (de)legitimisation by allowing the meme designer to comment on the source material through transformation – effectively exposing what they see as the "real" meaning of the original "Stay Alert" text.

Methodology

The vast number of memes created and shared daily poses challenges for researchers in collecting and selecting data. It is impossible for a study of this scope to collect every meme made about the topic, let alone to analyse them in any impactful way. The memes in this study were selected using a purposive sampling method, each chosen because of their relevance to the research questions and theoretical approach, and how they related to the original prompt of "Stay Alert".

In the weeks following the prime minister's 11 May speech and the launch of the "Stay Alert" campaign, memes mocking "Stay Alert" became a driving force in UK meme culture. This was confirmed by its inclusion in the crowdsourced online meme database Know Your Meme (KYM). Mainstream media outlets such as *The Independent*, *The Evening Standard* and *The Daily Mail* compiled examples of the memes into "listicles". These collections of memes became the primary source for the corpus of 50 memes examined in early analysis for this study. The typical structures that were most represented in the corpus were identified as: a remix of the original "Stay Alert" logo, the recontextualisation of "Stay Alert" into an already-popular meme format, and the personification of the coronavirus (using a human character as a stand-in for the virus). From the corpus of 50, three memes were then selected for deeper analysis, representing these various structures. The selection was necessarily subjective, based on researcher experience as an internet user in the UK during the pandemic. The use of a "critical case sampling" method (Dörnyei, 2007) allowed for the selection of examples that were most appropriate to answer the research questions and show how the multimodal design of a meme represents discourses about "Stay Alert".

After selecting the example memes, a social semiotic framework was operationalised to conduct a multimodal discourse analysis. This involved the creation of transcripts to map the modes, semiotic resources and effects of these resources in each meme. Such transcripts are more common in multimodal analyses of texts containing moving image and/or sound. However, the aim of this analysis was to uncover how the memes communicated meaning. A transcript allowed for the "zooming in" on the memes and provided an organisational structure to identify and analyse the modes and semiotic resources present in each. These transcripts make use of social semiotic concepts from Kress and van Leeuwen's *Reading Images* (2006), including elements of composition such as proximity, salience, framing, centrality and information value (see Table 11.1), to help the viewer make inferences about the meme designer's intended meaning. The second level of analysis was guided by a set of questions developed based on Bezemer and Kress's principles of meaning making: Selection, arrangement, foregrounding and framing (Bezemer and Kress, 2016, p. 76). The analysis also drew from Halliday's metafunctions of language, asking questions about the ideational (how the world is represented),

interpersonal (how the meme-maker is positioned to the viewer) and textual (how resources are used to create a coherent meaning) within a meme.

Analysis

This meme (Figure 11.2) takes the form of a "remix" of the original "Stay Alert" logo. This was the most common style of meme within the corpus, likely because it requires little technical skill to replicate – indeed, some tech-savvy meme designers created online tools allowing others to easily make their own versions of the "Stay Alert" sign (Cave, 2020). Visually, it is similar to the government's original design, with its bright yellow background framed by a green striped border and containing black words in all capitals. The only significant change the designer has made is to replace the government's message with mocking language, revealing what they see as the slogan's "true" meaning.

This is an example of a multimodal simile (Lou, 2017), where the modes of colour, writing and layout are used to mimic another text. In this case, the meme designer is saying that the government's advice to "Stay Alert, Control the Virus, Save Lives" *is like a* "Meaningless Slogan, [followed by a] Three-Word Platitude, [which] Invoke[s] Heroism". The large size and capitalisation of the text creates an interpersonal relationship between the viewer and designer, who uses the resource of proximity to visually "shout" at the viewer. Table 11.2 is a section of the multimodal transcript used in analysis of this meme and describes the effects of the designer's semiotic choices within the modes of writing and colour.

The third line of text draws attention to the discourse of heroism that the government used to discuss the NHS during the pandemic. By foregrounding the government's tendency to "invoke heroism", the
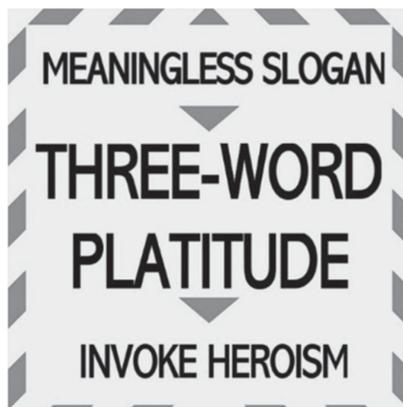
Figure 11.2 Meaningless Slogan, Three-Word Platitude, Invoke Heroism.

Table 11.2 A selection of the semiotic resources present in the "Meaningless Slogan" meme, and their effects

Mode	Resources of mode	Effect of mode
Writing	Typography – capitalisation, colour, font	Parodies "Stay Alert" slogan, branding
	Font size – large	Proximity to viewer, "shouting" effect from rhetor
	Describes "Stay Alert" messaging as "meaningless, platitude, invoking heroism"	Exposes and trivialises government's messaging
Colour	Hue – Yellow background, green border	Discourse of caution, alertness, safety
	Salience – saturated, bright colours	- Green = allowances - Yellow = caution
	Empty space	Separates writing into three distinct phrases, telling viewer that meme is a response to UK government messaging
	Green arrows	Coherence of text as one complete slogan; information linking

meme designer effectively accuses the government of hypocrisy and lack of empathy in its actions. This meme frames specific political attitudes emerging in the UK coronavirus context – a discourse of dissatisfaction with the government's handling of the pandemic and one of heroism by the NHS.

By making use of the original "Stay Alert" branding, but substituting the language, the meme designer takes on the government's voice, suggesting that the government is aware of the meaningless-ness of its own messaging. This meme has the effect of mimicking and mocking in a way that subverts the government's authority and exposes "Stay Alert" as an irrational method for handling the pandemic. Describing something (or someone) as irrational is a strategy of delegitimisation described in van Leeuwen's framework (2007).

Like the first example, this meme (Figure 11.3) is a remix of the original government logo – this is most evident in the mode of colour. The designer has made the semiotic choice to keep the yellow background, green striped border and impactful black font, as well as the original top line "Stay Alert". Rather than simply replace the slogan, however, the designer of this meme has primarily used the mode of layout to make meaning. The excerpt from the multimodal transcript used to analyse

Figure 11.3 Huh? Layout as metaphor for confusion.

Table 11.3 The mode of layout is crucial to the meaning of this meme. This excerpt from the multimodal transcript highlights the resources of layout used, and their effects

Mode	Resources of mode	Effect of mode
Layout	Positioning of textual elements diagonally, sideways	Subverts traditional reading path with confusing/jumbled appearance
	Centrality	"Huh?" foregrounded, has prominence as most central element

this meme (Table 11.3) highlights the effects of the designer's semiotic choices to position some of the words diagonally, and to foreground "Huh?" as the largest and most central element of the meme (Kress & van Leeuwen, 2006).

While the original "Stay Alert" logo communicates its message in three distinct, horizontally arranged lines, the designer of this meme has arranged the text in a way that creates visual confusion and disorientation. There is no clearly marked reading path, and the words appear in different sizes. This jumbled arrangement suggests that the natural response to being told to "Stay Alert" is to become confused. This is also communicated in the selection of the words themselves – "confused", "maybe?", "how?" and "I dunno". The playful images show the meme designer using humour to mock the government's strategy, suggesting they perceive "Stay Alert" as unserious. The meme also portrays the virus as a challenging threat, as the meme designer is confused about how to respond, and "Stay Alert" is not sufficiently helpful. Like the first

Figure 11.4 Distracted Boyfriend – Stay Alert or Stay at Home?

example did, this delegitimises the government's approach to the pandemic by framing it as confusing and irrational.

Figure 11.4 is distinct from the first two as it does not transform the "Stay Alert" logo, but rather recontextualises the original slogan by taking it from the logo and placing it into another context. The mode of image, with the semiotic resources of perspective, gaze, clarity and colour, among others, is key to this meme. The excerpt from the multimodal transcript in Table 11.4 highlights some of these elements.

Many internet users around the world are likely to recognise the image used in this meme, known as the "Distracted Boyfriend meme" (Know Your Meme n.d.-a). The meme consists of a stock photo image depicting a man who is on a walk with his girlfriend. He is looking over his shoulder at another woman walking past, with an expression of lust on his face. His distraction clearly offends his girlfriend, who has a disgusted facial expression and is placing her hand on her boyfriend's shoulder, as if attempting to physically reposition his gaze. Though the distracting woman is out of focus and slightly blurry in the image, she is wearing a bright red shirt – this colour is salient, drawing the viewer's attention. The red may also communicate danger, or seduction – a contrast to the girlfriend's innocent, blue shirt.

The typical use of this meme involves "object labelling": using text to label each person in the image as a different character, item or concept. In

Table 11.4 An excerpt of the multimodal transcript for the "Distracted Boyfriend" meme, showing the resources and effects within the modes of image and layout

Mode	Resources of mode	Effect of mode
Image	Perspective, gaze, clarity, facial expression	Establishes relationship between characters as metaphor for "Stay at Home" to "Stay Alert"
	Colour – salience, red hue	Colour highlights "Alert" character - Red = danger, bad decision
Layout	Writing labels characters	Characters in image represent language, elements of government slogan

this case, the meme designer has labelled each character as one aspect of the government slogan "Stay Alert" and the earlier version that it replaced, "Stay [at] Home". The boyfriend is labelled "Stay", his girlfriend is "At Home", and the distracting woman who catches the boyfriend's eye is "Alert". This arrangement and labelling decision likens what was ostensibly a serious public health decision (changing the advice from "Stay [at] Home" to "Stay Alert") to a boyfriend who is easily distracted by an attractive woman. This serves to mock, trivialise and delegitimise the government's decision, and draws attention to the government's tendency to change its messaging quickly and without much explanation.

Another interpretation may be that the meme designer views the "Stay Alert" advice, represented by the distracting woman, as a betrayal – implying that the original "Stay [at] Home" instruction, represented by the girlfriend, would have been the "safer" option. The meme designer frames the changing advice as an act of disloyalty and distraction, potentially harmful and dangerous. This meme depicts the designer's disapproval of the shift in guidance. By assigning characters and personalities to the elements of the slogans, the designer has foregrounded the government's language and framed it as inappropriate. The use of the "Distracted Boyfriend" meme suggests a social motivation to connect with a wide network of viewers, within and outside the UK.

Discussion

This analysis reveals how meme designers used semiotic resources to communicate discourses of delegitimisation about the public health campaign "Stay Alert, Control the Virus, Save Lives". These choices, arranged and contextualised into multimodal texts, have the effect of mocking, mimicking and parodying the government. Ultimately, they portray the campaign as confusing, irrational and even disloyal, in the case of the "Distracted Boyfriend" meme. Overall, the "Stay Alert" memes reflect a

view widely shared among the British public, that "Staying Alert" was an insufficient method for combatting the coronavirus. Indeed, months later the advice returned to "Stay Home" as the government instituted another lockdown in December 2020. The analysis also answers the research questions, revisited below.

RQ1 How are multimodal semiotic resources used in "Stay Alert" memes to portray the campaign?

The designers of each of these memes made a series of semiotic decisions when selecting what images and writing to pair together, how to arrange them and what to foreground. The result is three multimodal texts that have recontextualised the prompt of "Stay Alert, Control the Virus, Save Lives" by deleting, rearranging and adding. The meme designers therefore created new signs and communicated new meanings, while reminding viewers of the original prompt.

These memes use intertextuality – a blending of texts to represent a discourse that may not be present in the source material. This is most evident in the "Distracted Boyfriend" meme, which makes use of the effects already present in that meme, including humour and the distracted boyfriend's disloyalty to his girlfriend. By placing "Stay Alert" and "Stay Home" into the world of that meme, it subverts the original meaning of the "Stay Alert" text with commentary mocking it.

Despite their visual differences, the multimodal discourse analysis reveals similarities in the meanings represented in the memes. Primarily, the resources of writing and language, colour and arrangement mock the ambiguities and inconsistencies of the "Stay Alert" campaign and reveal its "true" meaning in the eyes of the designer. The effect of this is to delegitimise the prime minister and his government's ability to protect and care for the public during the pandemic.

RQ2 What discursive strategies emerge multimodally in the design of the memes?

The discursive strategy of simile is central in the designs of these memes. The designers of the memes used a variety of semiotic resources to create multimodal similes (Lou, 2017). Viewing the memes as multimodal similes makes it clear that the designer intended for their message to be understood in comparison to the original text. For example, the first meme ("Meaningless Slogan, Three-word Platitude, Invoke Heroism") taken out of the context of the pandemic in the UK, would not carry much meaning on its own. It is only when we as viewers associate it with "Stay Alert, Control the Virus, Save Lives" that we understand the designer is making a comparison: The government's messaging *is like* a meaningless slogan, a three-word platitude that invokes heroism. It is through this comparison that a discourse of delegitimisation is communicated.

The designer uses the phrase "Meaningless Slogan …" to emphasise their view of "Stay Alert" as an empty political cliché. It also draws attention to the government's supposed overuse (and abuse) of the NHS heroism discourse.

The memes also use parody and humour, mocking the government through semiotic combinations of image, colour, layout and writing. In the first two examples, colour and layout create a parody of the "Stay Alert" logo. The incongruity of this easily recognisable design, paired with writing clearly meant to derogate the government's messaging, is humorous. In the second example, the inclusion of a cartoon coronavirus spike protein, the "eyes" emoji, irreverent phrases such as "Drink coffee" and the vulgarity of "Fucked" also contribute to the humour of the meme. Finally, the "Distracted Boyfriend" meme format uses the humorous character of the boyfriend who cannot make up his mind as a symbol of the government's lack of clear and purposeful strategy.

RQ3 What do "Stay Alert" memes communicate about the public view of the government in this context?

The memes analysed in this study are widely understood as responses to the UK government, evident by how they are framed as "spoofs" and "parody" in the UK media. While political memes often lampoon their targets through Photoshop editing or false captions of individual figures, the "Stay Alert" memes notably focused on the government's multimodal message, foregrounding the slogan through image and text. The designers of these have distilled the government's public health strategy into its essentialist traits of colour and layout, or the words "Stay Alert". The use of the green and yellow logo design and/or the words "Stay Alert" in each meme suggest that the designers want viewers to recognise elements of the original text and make links to the government strategy as a whole.

Given the content and context of these memes, we can infer that the designers have both social and political functions in mind. The memes analysed all use humour to frame the UK government's approach to the pandemic as meaningless, confusing or insufficient. In this way, the memes are examples of how humour can be used to trivialise, and consequently delegitimise, government policy. The memes highlight the government's public safety discourse of "Stay Alert", but simultaneously represent a counter-discourse of a confusing and irrational campaign. This discourse was widely shared by the public and opposing political figures and its materialisation in meme delegitimises the campaign. Applying van Leeuwen's framework of legitimising discourse, the primary discursive action in these memes can be understood as delegitimisation using (ir)rationalisation, which makes "reference to the goals and uses of institutionalised social action, and to the knowledge society has constructed to endow them with cognitive validity" (van Leeuwen, 2007, p. 92). The rhetors use memes to frame "Stay Alert" as an irrational

strategy for combatting the virus, either because it is meaningless, confusing, ineffective or inferior to another strategy.

The analysis was also informed by Jenkins's (2006) concept of participatory culture and spreadable media, which may help explain the social practices behind the popularity of the "Stay Alert" memes. As an institutional rhetor with a social expectation of serving the public, we can assume that the UK government wanted their messaging to be memorable and spreadable to encourage particular behaviours and combat the pandemic. In the world of digital media, they might have predicted that parody memes would be a natural social response. The memes created about "Stay Alert" may have served to mock and undermine the government, but they also had the effect of making the phrase more well-known and widely discussed among the public.

Conclusion

The coronavirus pandemic is unique in history as a global event of this scale, experienced by billions of people online. During this time, memes have been both a source of entertainment for quarantined individuals and tools for expressing frustration, confusion and fear about the pandemic and the government's strategy for combatting it. While this study looked specifically at the UK, the memes that have emerged in other regions are worthy of future study, representing specific discourses and feelings about the world that are culturally specific and shareable. Further research might draw more attention to the semiotic resources used in viral memes to explore how other aspects of the world under COVID-19 are represented in public discourse. Over time, studying internet memes in the context of the coronavirus may reveal significant insights about human behaviour during the pandemic – for example, if a certain meme prompted a behaviour change that directly impacted the number of cases in a region.

While films, television, books and other media are certain to emerge as a creative record of life in the pandemic, they may not fully encompass all of the public discourses that emerged during this time. The public view of "Stay Alert" is an important part of the COVID-19 era, and this view is captured clearly in social media discourse, including the memes in this chapter and others. As the analysis has shown, memes can subvert and delegitimise the government's official narrative. Uncovering the meaning of these memes is necessary if we are to fully understand the public's experience of the COVID-19 pandemic.

References

Anapol, A. (2020, 6 August). Documenting a "viral" pandemic: Why memes are the most apt way to communicate about COVID-19. *PanMeMic*. https://panmemic.hypotheses.org/737

Aslan, E. (2020). When the internet gets "coronified": Pandemic creativity and humour in internet memes. *Viral Discourse.* https://viraldiscourse.com/2020/04/28/when-the-internet-gets-coronified-pandemic-creativity-and-humor-in-internet-memes/

Aunger, R. (2002). *The Electric Meme: A New Theory of How We Think*. The Free Press.

BBC News (2020, 10 May). Coronavirus: Minister defends "stay alert" advice amid backlash. *BBC.* www.bbc.co.uk/news/uk-52605819

Bezemer, J., & Kress, G. (2016). *Multimodality, learning and communication: A social semiotic frame*. Routledge.

Byrne, A. (2020, 27 April). The evolving design of the Coronavirus. *UX Collective.* https://uxdesign.cc/the-evolving-design-of-the-coronavirus-e9c1392d4649

Cave, G. (2020). SAVE LIVES Poster Generator. *Designed by Cave.* www.designedbycave.co.uk/save-lives/

Conte, R. (2000). Memes through (social) minds. In R. Aunger (Ed.), *Darwinizing Culture: The Status of Memetics as a Science* (pp. 83–119). Oxford University Press.

Davis, C. B., Glantz, M. & Novak, D. R. (2015). "You Can't Run Your SUV on Cute. Let's Go!": Internet memes as delegitimising discourse. *Environmental Communication*, *10*(1), 62–83. https://doi.org/10.1080/17524032.2014.991411

Dawkins, R. (1976). *The selfish gene.* Oxford University Press.

DeCook, J. R. (2018). Memes and symbolic violence: #proudboys and the use of memes for propaganda and the construction of collective identity. *Learning, Media and Technology*, *43*(4), 485–504.

Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford University Press.

Dynel, M. (2016). "I Has Seen Image Macros!" Advice animal memes as visual-verbal jokes. *International Journal of Communication*, *10*(2016), 660–688. https://ijoc.org/index.php/ijoc/article/view/4101/1556

Fomin, I. (2019). Memes, genes, and signs: Semiotics in the conceptual interface of evolutionary biology and memetics. *Semiotica*, *2019*(230), 327–340. https://doi.org/10.1515/sem-2018-0016

Grundlingh, L. (2018). Memes as speech acts. *Social Semiotics*, *28*(2), 147–168. https://doi.org/10.1080/10350330.2017.1303020

Hickman, A. (2020, 12 May). PR pros lambast new government "Stay alert" slogan as "unclear" and "unhelpful". *PR Week.* www.prweek.com/article/1682781/pr-pros-lambast-new-government-stay-alert-slogan-unclear-unhelpful

Jenkins, H. (2006). *Convergence culture where old and new media collide*. New York University Press.

Jenkins, H., Ford, S. & Green, J. (2013). *Spreadable media: Creating value and meaning in a networked culture*. New York University Press.

Jones, R. H., Chik, A. & Hafner, C. A. (2015). Discourse analysis and digital practices. In R. H Jones, A. Chik, & C. A. Hafner (Eds.), *Discourse and digital practices: Doing discourse analysis in the digital age* (pp. 1–17). Routledge. http://centaur.reading.ac.uk/66501

Know Your Meme. (n.d.-a). Distracted boyfriend. Retrieved 10 September 2020 from: https://knowyourmeme.com/memes/distracted-boyfriend

Know Your Meme. (n.d.-b). Stay alert. Retrieved 13 May 2020 from: https://knowyourmeme.com/memes/stay-alert

Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication.* Routledge.

Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication.* Arnold Publishers.

Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design* (2nd ed.). Routledge.

Kuipers, G. (2005). "Where was King Kong when we needed him?" Public discourse, digital disaster jokes, and the functions of laughter after 9/11. *The Journal of American Culture*, *28*(1), 70–84.

Lou, A. (2017). Multimodal simile: The "when" meme in social media discourse. *English Text Construction*, *10*(1), 106–131. https://doi.org/10.1075/etc.10.1.06lou

Machin, D. (2013). What is multimodal critical discourse studies? *Critical Discourse Studies*, *10*(4), 347–355. https://doi.org/10.1080/17405904.2013.813770

Mackay, R. (2013). Multimodal legitimation: Looking at and listening to Obama's ads. In P. Cap & U. Okulska (Eds.), *Analyzing genres in political communication: Theory and practice* (pp. 345–377). John Benjamins.

Marcus, O. R., & Singer, M. (2017). Loving Ebola-chan: Internet memes in an epidemic. *Media, Culture & Society*, *39*(3), 341–356. https://doi.org/10.1177/0163443716646174

Middleton, J., & Andrews, L. (2020, 10 May). Confused Britons mock Boris Johnson's "stay alert" slogan and accuse No 10 of putting out "vague" mixed messages by creating their own versions. *The Daily Mail Online*. www.dailymail.co.uk/news/article-8304985/Sneak-Shout-Virus-Run-Britons-mock-Boris-Johnsons-new-stay-alert-slogan.html

Milner, R. (2012). *The world made meme: Discourse and identity in participatory media.* [PhD Dissertation, University of Kansas]. KU Scholar Works. https://kuscholarworks.ku.edu/handle/1808/10256

Milner, R. (2013). Pop polyvocality: Internet memes, public participation, and the Occupy Wall Street movement. *International Journal of Communication*, *7*(2013), 2357–2390. https://ijoc.org/index.php/ijoc/article/view/1949/1015

Ross, A. S., & Rivers, D. J. (2017). Digital cultures of political participation: Internet memes and the discursive delegitimization of the 2016 U.S Presidential candidates. *Discourse, Context & Media*, *16*, 1–11. https://doi.org/10.1016/j.dcm.2017.01.001

Shifman, L. (2014). *Memes in digital culture.* The MIT Press.

van Leeuwen, T. (2007). Legitimation in discourse and communication. *Discourse and Communication*, *1*(1), 91–112. https://doi.org/10.1177%2F1750481307071986

van Leeuwen, T., & Wodak, R. (1999). Legitimizing immigration control: A discourse-historical analysis. *Discourse Studies*, *1*(1), 83–118.

Wiggins, B. E. (2019). *The discursive power of memes in digital culture: Ideology, semiotics, and intertextuality.* Routledge.

Williams, A. (2020, 22 April). It's OK to find humour in some of this. *The New York Times*. www.nytimes.com/2020/04/22/style/coronavirus-humor.html

12 Everyday acts of social-semiotic inquiry

Insights into emerging practices from the research collective PanMeMic

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Introduction

Social distance policies and mobility restrictions put in place worldwide during the COVID-19 pandemic have forced us all to change our communication and interaction practices. In April 2020, when it had become clear that the spread of the COVID-19 virus had turned into a global phenomenon (the WHO declared it a pandemic on 11 March 2020), we started an international co-reflective research initiative and transmedia space to try to make sense of the pandemic's semiotic implications. The space has involved both academics and non-academics in the sharing of experiences and reflections on how the pandemic has changed the ways in which we communicate and interact with others, along with tracing the implications for the future of social interaction. We have called the initiative PanMeMic: Pandemic Meaning Making of Interaction and Communication. The founders are a team of 30 scholars in multimodality, based in different countries across the globe. Each member functions as a node to involve their own social networks into contributing to share reflections. The transmedia space centres on a website connected to social media profiles on Facebook, Instagram, Twitter and YouTube. By January 2021, it had involved over 1,500 people across these online platforms. While pieces were being written for and featured on the website and discussions were unfolding on social media (particularly in the PanMeMic Facebook group, where the data analysed for this chapter originated), 12 members of the founding team published a manifesto (Adami et al., 2020) that traced the main coordinates of the changes, by drawing on our own observations and the discussions taking place in the transmedia space.

The PanMeMic manifesto identifies key changes along five main dimensions, driven by the need to keep bodies apart and individuals

connected. Changes have involved **mediation**, with bodies kept further apart and activities digitally remediated; **channels of perception**, with a dominant role of the audio-visual, given that touch and other senses are unsafe offline and unavailable online; **semiotic resources**, as speech, gesture, gaze, face expression and body proxemics need re-regulation online and readjustments in public physical environments, with social distance and mask wearing being introduced; **meaning-making practices**, with new practices being developed to show affection and signal closeness or to greet people, for example, or to take turns in meetings, remediated digitally; and the **interaction order** (Goffman, 1983), including perceptions of boundaries between public and private, and cues for formality and informality, but also fewer opportunities for interacting with strangers and social serendipity, and a potential increase in the calendarisation and datafication of social life, with associated risks for privacy. The combinatory possibilities of our interaction order have been undergoing a radical reshuffling in times, paces, spaces, places, activities, roles, media and resources. These changes – some of which were already underway to some extent for some communities of practices – have an unprecedented scope, as they have been **global** (although people have been impacted differently), **abrupt,** as they had to be enforced with little warning, as well as **totalising** and **pervasive,** as they have involved all spheres of social life and basic actions in how we go about doing things with others.

In different ways but similarly, people around the world underwent a **redisciplining process**. What was habituated and naturalised in terms of basic actions and conventions on how to engage in all kinds of everyday activities has suddenly become unviable, and new viable semiotic practices have had to be found, from who to touch and how close to approach somebody to interact, to how to conduct daily activities online. While institutions have provided basic rules and directions (e.g. wash hands, wear a mask, keep at a two-metre distance or meet only outdoors), nobody has been taught how to reshape interaction practices for a pandemic. Each of us has had to create our own solutions and constantly think, plan and de-automatise habituated actions and practices. This redisciplining process has forced us to be collectively creative and has made each of us highly aware and prone to observation, self-reflection and metacommentary on how we were changing our practices. We have found ourselves in an exceptional moment of **heightened awareness** and **distributed semiotic knowledge in the making**. PanMeMic started from the need to document and make the best of the semiotic knowledge being developed, to capture it in the moment, while the awareness was heightened, and there were more people noticing and (meta-)reflecting on the new semiotic practices in the making, before these too would start to become automated and naturalised.

The COVID-19 pandemic has presented a unique moment for exploring the dynamics of co-construction of and reflection on emergent semiotic practices. So, as an online transmedia space, PanMeMic was designed with an aspiration beyond documenting the moment. In fact, the actual practices

being co-constructed were being possibly over-documented everywhere, on mass media as well as social media, with the pandemic and related changes totalising all forms of communication for months. PanMeMic had also, and possibly more importantly, the aspiration of achieving insights into the dynamics of the co-construction of distributed semiotic knowledge in its very making. In this, involving people directly by inviting them to share their experiences and reflections on social media seemed to be the most suitable method. First of all, it was a necessity, as offline fieldwork observation of people's interaction practices became heavily limited, given the restrictions imposed on mobility and physical co-presence. Secondly, and more positively, without denying limitations of access caused by the digital divide, social media offer transnational reach and connectivity, and the possibility of preserving and tracking what is shared. Finally, although multimodal analysis is usually observational of texts and actual interactions, collecting people's accounts of and reflections on their own practices as well as those of others can offer a (positioned) window on practices that cannot be observed and insights into how and why practices in general develop and are shared, valued (or not) and legitimated. In sum, such accounts and reflections potentially offer unique insights into the dynamics of social co-construction of semiotic knowledge and practices.

The present chapter aims to show the insights into these dynamics that can be achieved through a method of participatory co-observation, meta-reflection and discussion. We first introduce the theoretical and methodological underpinnings of PanMeMic as a collective research initiative and aspects of this project explored in this chapter. These include principles drawn from citizen sociolinguistics (Rymes, 2021; Rymes & Leone, 2014), social semiotics (Kress, 2010; van Leeuwen, 2005), ethnography (Garfinkel, 1976; Hymes, 1980), and multimodal and critical discourse analysis (Kress & van Leeuwen, 2001; van Leeuwen, 2008). Then we analyse a sample of posts and related discussion threads from the PanMeMic Facebook group to exemplify the insights achievable, before discussing the findings.

Theoretical and methodological underpinnings

As a method for collective research on multimodal communication and interaction during the pandemic and beyond, PanMeMic is inspired by and extends to the study of multimodality Rymes's (2021) "citizen sociolinguistics". Our own contributions to and interpretations of PanMeMic discussions are informed by key ideas from social semiotics that highlight the ability of everyday people to contribute to the development of semiotic resources and research on semiotics, as well as by ethnomethodological and ethnographic assumptions on expertise and tacit knowledge being widespread in society. The analysis of two exchanges on the PanMeMic Facebook group that we present in the following section also employs concepts from van Leeuwen's (2008) model for critically analysing the relationship between discourse and social practice.

Analogous to citizen science, citizen sociolinguistics is a type of participatory, collective approach to research about language in society. Rymes (2021) defines it as "everyday talk about language" (p. xi) through which people engage in "the study of the world of language and communication by the people who use it and, as such, have devised ways to understand it that may be more relevant than the ways professional sociolinguists have developed" (p. 5). Each conversation about language – whether triggered by critique or curiosity – is thus an act of citizen sociolinguistics, and whenever people talk about language, they act as citizen sociolinguists. In this role, they are both participants and researchers: As they share their own local experiences of using language in particular situations and their perspectives on their own as well as others' linguistic choices and repertoire, they also engage in a form of inquiry that reveals and expands their own and others' tacit knowledge about language and society.

Citizen sociolinguists demonstrate and build expertise through sharing representations of and diverse opinions about language use. This distinguishes them from traditional sociolinguists, who seek to directly witness, record, transcribe, analyse and often quantify how language is used in *a priori* determined communities or social contexts, and draw on such analyses to define sociolinguistic types. The value of examining everyday conversations about language lies in their capacity to "make visible otherwise unseen aspects of language and communication, building expanded awareness of language diversity and change, and its role in society" (Rymes, 2021, p. 6), especially how and why people value and validate certain linguistic forms and variations in their use. As talk about language simultaneously reflects and expands awareness of locally nuanced experiences with and perspectives on language, it also functions as a source of "important and overlooked language expertise" (p. 6).

Citizen sociolinguistics shares the aims of citizen science to "(1) reconfigure what counts as expertise, expanding awareness of local nuance, and (2) potentially foment grassroots motivated social action and change" (Rymes, 2021, p. 6). Citizen sociolinguistics values the tacit knowledge about language distributed among everyday people, which surfaces whenever people talk about language, where expertise is not institutionally recognised but interactionally negotiated and collectively expanded indefinitely. As Rymes (p. 14) explains:

citizen sociolinguistic expertise is:

1. Multi-voiced, inclusive representation of many perspectives
2. Local, fine-grained descriptions, often embedded in personal stories
3. Always changing, dynamic representations of language
4. Interactionally negotiated indefinitely

The success of citizen sociolinguistics is measured in its ability to "draw together voices who might otherwise not interact" (Rymes, 2021, p. 21) – which is significantly bolstered through online social media – and, without privileging any of these voices, to raise awareness of and promote deliberation among their diverse perspectives on language. As "this diversity of everyday voices has the capacity to remove blind spots we all have when we don't look beyond our own perspective" (p. 54), engaging with it empowers citizen sociolinguists to see beyond linguistic stereotypes and to take bottom-up action against attempts to standardise language use. Reconfiguring what counts as expertise is thus a prerequisite for fostering social change: "by giving voice to largely unrecognised and diverse views on language, *everyday talk about language counterbalances exclusive, unilateral, and standardised depictions of what counts as legitimate language knowledge*" (p. 14, original emphasis).

In line with the principles outlined so far, Rymes (2021) offers steps for designing and conducting a citizen sociolinguistic inquiry: (1) Formulate a question about language or communication more generally (e.g. about a word, dialect or emoji); (2) gather data by looking for and initiating dialogue about the question, with the aim of discovering a range of different perspectives on it and ideally adopting an open-source approach – making the data public, or at least ensuring it is available to the people who have shared the data; (3) analyse or interpret the data; and (4) disseminate the findings of the analysis and invite feedback on the interpretations (especially from the people whose perspectives are represented) in ways that foster further deliberation. In taking these steps, Rymes (2021, p. 26) argues, citizen sociolinguists need to be aware of the promise and peril of "feedback loops". On the one hand, positive feedback loops, which on social media are created through retweets, likes and comments, can help circulate local expertise globally, increasing its reach, authority and power to inspire grassroots change. On the other hand, especially when powered by algorithm-driven narrowcasting on social media, feedback loops can "create digital enclaves of like-minded language users [and] reproduce status quo perspectives on language" (p. 26), thereby jeopardising the goals of the citizen sociolinguistic enterprise. Expanding citizen sociolinguistic principles, PanMeMic draws on the assumption that whenever discussing or commenting on semiotic practices, people act as social semioticians, engaging in a form of inquiry that contributes to shared "semiotic knowledge" (Adami & Ramos Pinto, 2020, p. 74).

PanMeMic's mission as a transmedia platform where everybody, and not only multimodality scholars, can share their stories and views on how communication and social interaction have been changing during the pandemic aligns well with the social semiotic approach to multimodality developed by Gunther Kress and Theo van Leeuwen (Kress, 2010; Kress & van Leeuwen, 2001; van Leeuwen, 2005). Kress (1997, 2010) had long recognised the expertise in and diverse perspectives on multimodal

meaning making that all people, including very young children, demonstrate as they *make* signs by selecting from the resources available to them those that are *apt* for expressing the meanings that reflect *their interests* in particular social contexts. By shifting attention to meaning-making practices, Kress and van Leeuwen (2001) not only broadened the scope of multimodality research beyond mapping the meaning-making potential of individual modes, but also highlighted the distributed knowledge about various semiotic resources evident in the ways people integrate them multimodally in everyday communication.

Van Leeuwen's (2005) definition of social semiotics as a form of interdisciplinary inquiry can be read as an invitation for people with diverse expertise to engage in it too:

> social semiotics is not "pure" theory, not a self-contained field. It only comes into its own when it is applied to specific instances and specific problems, and it always requires immersing oneself not just in semiotics concepts and methods as such but also in some other field.
>
> (van Leeuwen, 2005, p. 1)

Experts with academic credentials in semiotics are not the only ones who can contribute to knowledge in this field if we adopt van Leeuwen's (2005) conceptualisation of semiotics as a social practice comprising three closely related activities and of semioticians as all people who:

1. Collect, document and systematically catalogue semiotic resources – including their history
2. Investigate how these resources are used in specific historical, cultural and institutional contexts, and how people talk about them in these contexts – plan them, teach them, justify them, critique them, etc.
3. Contribute to the discovery of and development of new semiotic resources and new uses of existing semiotic resources.

(van Leeuwen, 2005, p. 3)

This conceptualisation has inspired studies of artists' and software designers' practice-based contributions to research on semiotic resources such as colour and visual texture (Djonov & van Leeuwen, 2011; van Leeuwen, 2006) and semiotic software such as PowerPoint and associated social practices (van Leeuwen et al., 2013). The analysis of selected exchanges from PanMeMic's Facebook group that we present below will reveal how the group's members, too, engage in these activities collectively by drawing on their local experiences with and knowledge about (changes in) the use of particular semiotic resources.

PanMeMic is a global platform for building collective expertise about changes in multimodal communication and interaction practices during

the pandemic and beyond by representing and deliberating about these practices. As a collective research initiative, it provides a means to partially address our very limited ability to directly observe and document such practices in the way multimodal ethnographers might like to do, which is further hampered by the constraints on mobility and research with human participants during the pandemic. Yet, in line with an ethnographic stance, we view research into semiotic practices as "continuous with ordinary life" (Hymes, 1980, p. 13). "Much of what we seek to find out in ethnography is knowledge that others already have" (p. 13). Ethnographers' work extends what we all do as humans, namely, "learn the meanings, norms, patterns of a way of life" (p. 13). In this people have profound and specific knowledge, which they have built similarly to how ethnographers proceed. At the same time, in their lives, professional ethnographers too "are in the same situation as the rest – needing to make sense out of a family situation, a departmental situation or a community situation, as best they can" (p. 14). We adopt Hymes's stance as valid also for social semiotic research and treat all the contributions in PanMeMic as forms of social semiotic inquiry regardless of the professional status or training of their authors.

Another value of PanMeMic that we explore in this chapter is as a forum for sharing different views on communication and interaction practices. To do that, we employ van Leeuwen's (2008) framework for critical studies of how discourses represent social practices. At its heart is the argument that social practices, or "socially regulated ways of doing things", must be distinguished from discourses about them in order to recognise that one and the same practice may attract "a plurality of discourses" (van Leeuwen, 2008, p. 6).

Van Leeuwen (2008) offers a method for exploring the relationship between discourse and social practice that can reveal how discourses reinforce or subvert the social order. The first step is to identify the components of a social practice (e.g. actor/s and their presentation styles, activities, time/s, location/s) and the eligibility conditions they must meet (e.g. only some spaces are suitable for COVID-19 quarantine). The next step is to examine whether and how the practice has been transformed in discourse, where the use of language and other semiotic resources can result in *additions*, *substitutions*, *deletions* and *rearrangements* in the representation of the practice.[2]

Following van Leeuwen (2008), a type of *addition* that cannot be observed in social practices themselves, but can only be achieved when they are represented in discourse, is **legitimation**, with language being a key vehicle for achieving this. Van Leeuwen recognises four categories of legitimation, which are often co-deployed in discourse:

(1) **Authorisation**, which draws on the *personal authority* individuals enjoy in a given institution (e.g. a teacher in a school) or the *impersonal authority* of laws, rules and regulations, on

recommendations from *experts* such as scientists or doctors and *role models* such as celebrities or social media influencers, or on *conformity* ("what most people do") or *tradition* ("what we always do")

(2) **Moral evaluation,** which appeals to values (e.g. "beauty", "independence" or "social inclusion") and value systems

(3) **Rationalisation,** which could be *instrumental*, and refer to the goals, purposes, uses, potential, results and effects of certain practices, or *theoretical*, and deploy explanations, predictions, common-sense knowledge based on experience, and science

(4) **Mythopoesis,** which relies on telling moral or cautionary tales

In our take and analysis that follows, we draw both on van Leeuwen (2008) and Rymes (2021), with two distinctions. First, instead of looking critically at how discourse represents social practices (as does van Leeuwen), we look at how people share and co-construct knowledge on emerging *semiotic* practices; in this, we take participants' accounts as their translation of semiotic practices. Second, instead of formulating a research question and searching for existing places where people debate about it (as Rymes tends to do), PanMeMic is a space we have created to initiate as well as engage ourselves in dialogue about semiotic practices during and beyond the pandemic. It is a two-way participatory enterprise, blurring boundaries between personal and professional voices and expertise. As Anna Belladelli (a collaborator on this chapter and contributor to the exchanges discussed in it) puts it, it is an "international, informed yet informal observatory", as a "way to try and collect insight about the unexpected ways communication is changing due to the pandemic".

Analysis

The PanMeMic Facebook group had 989 members at the time of writing. In the first months of the pandemic, posts were quite frequent (up to ten a day, see data in Adami et al., 2020), often generating discussion threads in the comments. Although we cannot provide a systematic quantification and classification of these posts and comments (due to restrictions on downloading data shared in Facebook groups), they served to share experiences, fears and concerns, links to news and opinion pieces, memes and artworks, and pictures witnessing practices emerging, as well as requests for advice. Given the international composition of the group, posts often initiated transnational exchanges that would hardly have been possible otherwise.

In this section we examine two exchanges that demonstrate the value of PanMeMic as a platform for learning and deliberating about (1) semiotic practices that people have created or adapted for communication during the pandemic and (2) the ways in which these practices have

emerged and are valued by diverse people. While they may not necessarily represent the most frequent types of discussion that have taken place in PanMeMic's Facebook group, we have selected these exchanges because they exemplify two key acts of ordinary socio-semiotic inquiry, namely, the sharing and the negotiation of semiotic practices.

While the sharing and negotiation is done online, the semiotic practices discussed in the PanMeMic Facebook group include both online practices such as managing interactions during videocalls as well as offline ones such as greeting people in the street from a distance. The two exchanges we analyse next deal with semiotic practices that take place in physical co-presence, rather than online, and with interactions that are not digitally mediated. The first illustrates how PanMeMic provides a space for learning about and then adopting and adapting semiotic practices outside this online space. The second example is about PanMeMic as a space for negotiating and legitimating these face-to-face practices that can bring together different voices. The analysis we present below focuses on identifying the semiotic resources and practices discussed in each exchange, and the dynamics of legitimation of these practices emerging in the discussions.

Emerging practices in the making: Co-constructing semiotic knowledge

Anna's post shown in Figure 12.1 opens with three emotionally loaded personal life events used as premises and exemplifying evidence of the hardship caused by the ban on touching others, which is linked to the function of physical contact for processing emotions. Two reflections ensue: One is on the awkwardness provoked by the need of sound re-regulation in speech due to mask wearing and the window it opened for Anna onto the difficulties faced by hearing-impaired people living in a world governed by hearing normativity (a theme that came up in other posts in the group – generating also heated debates, see, e.g. the analysis in the next subsection). The second one is on a coping semiotic practice ("technique") that Anna has developed to compensate for the impossibility to hug others, which is our specific focus here. Being a new practice that she is attempting when encountering others, outside established conventions, it needs to be introduced explicitly through a spoken request ("*I ask them* to turn around and hug them from behind") and is enacted by placing her "cheek on their shoulderblades". Validation of the practice (or support of its viability) is provided through the response received, namely that "they seem to appreciate it", which further frames the practice and its acceptability in the new context, where past conventions of formality (among co-workers) no longer hold "Under other circumstances my coworkers would react but …".

The following comment by Letizia legitimates the practice through personal evaluation ("I like your technique"), labels it ("I call it the

Figure 12.1 The "backpack hug".

Source: www.facebook.com/groups/2940479722714447/permalink/302925721 3836697/.

backpack hug") and introduces her personal variation, always initiated by an explicit spoken request to turn around, but with a mutual turning of backs at each other. To strengthen the visual rendition of the written description of the practice, she likens it to bears rubbing against trees. A second commenter (who consented and contributed to the analysis but prefers to remain anonymous) opens by thanking Anna and Letizia for the suggested practice, motivates her contribution by sharing an extremely sad personal experience (the Covid-related death of her grandmother and the pain added by the impossibility of consoling her dad through touch or a hug), and closes by announcing her eagerness to adopt Anna's suggested practice by naming it "the backpack hug", following Letizia's label. When we later contacted her for the analysis of the exchange, she

wrote to us: "that gave me hope I could hug my dad at my grandmother's funeral … It was sort of awkward but I was happy to know I could if I felt the need to – which I did". Her response provided evidence that the exchange contributed to spreading this new semiotic practice. Also note that, while the poster and first commenter are based in Italy, the second one is based in Canada – and the three are not in contact with each other except as members in this Facebook group. Thanks to this online space the backpack hug as a semiotic practice "moved" from Italy to Canada. PanMeMic thus provided a space for the transnational circulation of an emerging coping practice among people who would hardly have the chance to meet otherwise.

This exchange happened in writing, yet it deals with an emerging semiotic practice. Writing frames, describes, validates and labels a practice composed through multimodal orchestration (a spoken request initiation, a body turning, the narrowing of proxemics, a head touching), codified through the label "backpack" and provided with a variant (both turning backs, like bears rubbing against trees).

This is a banal example, taken from a brief exchange in the Facebook group, which exemplifies what we can confidently assume has been the sharing, validating and taking up of new semiotic practices both through public exchanges in social media and private ones among individuals' personal networks. We use here the term "banal", following Kress (2003, p. 120; 2010, p. 69), not to suggest the practice is meaningless or insignificant – quite the contrary – but to stress how the deepest of social significance (ideational but also affective/emotional, psychological and deeply personal) is to be found in everyday acts of sign making. The design and dissemination of new practices is possibly even more significant in such a moment of collective emergency and of radical, abrupt and pervasive restrictions and forced change. As is known to happen in online support groups, people exchange knowledge (the literature is extensive, for health support groups see e.g. Kingod et al., 2017; for Facebook groups e.g. Mudliar & Raval, 2018). Our exchange shows that they suggest best practices, provide evidence to support them, name and categorise them to give them recognition through codification, and, in so doing, make them shared semiotic practices and knowledge. The transnational reach of social media environments allows for this to happen beyond one's immediate personal networks.

Similarly to Rymes's (2021) focus on individual and collective acts of production of sociolinguistic knowledge and on the creation, negotiation and validation of practices and norms of language use, we value this exchange as a banal example of "semiotic knowledge" (Adami & Ramos Pinto, 2020, p. 74) in the making. It is an act of collective reflection, evidencing, explanation and labelling of a multimodal ensemble as a semiotic practice that can help one cope with the unavailability of formerly established ones for hugging, comforting each other and processing emotions. The "collective" in this case involves the three most active participants (based in different locations and not knowing each

other previously), plus all those who liked the post and comments, and possibly many others who were exposed to this social semiotic inquiry by reading this Facebook group exchange. The semiotic practice is not being witnessed or recorded in the act of its making or performance, nor is it captured and analysed by multimodal or interaction analysts. It is instead shared in writing publicly with others through social media.

The semiotic practice is

1. described in its multimodal deployment,
2. motivated through personal perspectives, and
3. legitimised in its context of applicability, as well as
4. codified through labelling, and
5. provided with a variant

It is, in sum, a brief yet extremely articulated case of semiotic knowledge about an emerging practice being co-constructed and shared. As we will argue in the discussion section, this brief three-way exchange shows the role of everyday acts of sociosemiotic knowledge building and distributed expertise in society.

While this exchange captures only a moment in time, sociosemiotic knowledge is dynamic and ever changing. Anna (the author of the post) later told us "that [the] creative attempt quickly grew stale because people were not responding or reciprocating my greeting with their bodies […] They would express appreciation with their voice (thank you! You're so sweet!) but that reaction did not match any of the visual and sensory needs my body is accustomed to when greeting a loved one (eye contact, facial mirroring, mutual stepping closer to each other, etc)" and "So months went by and I simply decided I would hug close friends anyway, and that wearing a mask was safe enough to allow for a 5-seconds hug. This is how I still behave". So while the second commenter did use the practice she had learned from Anna's post, Anna herself later abandoned it. Later feedback from the participants thus offers insights into the continuous, open-ended and ever-changing dynamics of semiotic knowledge in the making, and into the value of PanMeMic as an approach to building shared expertise based on the understanding that "[t]he voices we record for our research do not stop once we turn off the recording device" (Rymes, 2021, p. 115).

Negotiation of practices between wonderment and arrest

In contrast to the exchange analysed above, the one we turn to next opens not by sharing first-hand experiences of emerging interaction practices, but by expressing "wonderment" (Rymes, 2021, p. 66) about the possible future uptake of one.

Chris's opening post shown in Figure 12.2 asks "Could mask wearing lead to more people learning sign language?" and introduces voices from

Chris John Brooke
July 15, 2020 · 🌐

Copied this from a local news source. The comment raised something I haven't thought of. Could mask wearing lead to more people learning sign language?

YORKMIX.COM
'Wear a mask now in public' urge York public health leaders

👍 33   54 comments 10 shares

👍 Like   💬 Comment   ↪ Share

I'm sharing this very important point made by a hearing impaired friend;

With the news of face masks becoming mandatory in majority of shops, a lot of people like myself who are deaf, will find this news extremely difficult because we rely heavily on lipreading people when it comes to communicating, I have faced some annoyances through this pandemic when I asked some people trying to communicate with me to remove their masks so I can lipread and it was extremely disheartening to face that attitude, so please be more understanding toward those like myself who rely on lipreading, as it is hard enough as it is trying to communicate without it. Otherwise go and learn some sign language if you do not want to remove your face mask! ... Just saying!

Figure 12.2 The masks and lip-reading debate – opening post (strikethrough on comment profile picture and name in the original post).

Source: www.facebook.com/groups/2940479722714447/permalink/310816762 5945655.

outside PanMeMic, in the form of a news announcement and a comment to it, which triggered his question. The news announcement urges people to wear masks in public. The comment to the news item shares "this very important point made by a hearing impaired friend" – that mandatory masks cause "annoyances" such as people's "disheartening" refusal to lower their masks to enable lip reading. While the announcement draws on the expert authority of public health leaders in York (UK) to legitimate mask wearing, the news comment employs the personal authority of a hearing-impaired friend alongside moral evaluation and storytelling to present the view that wearing masks further disables the deaf community in communication contexts. It ends with the plea "please be more understanding toward those like myself who rely on lipreading … Otherwise go and learn some sign language if you do not want to remove your face mask!". This comment, then, draws attention both to the hurdles mask wearing presents for the modes and media of communication that the deaf community rely on and to ableist ideologies at play in face-to-face interactions prior to and during the pandemic.

The first comment that Chris's opening post receives, by Faried, shown in Figure 12.3, briefly answers the question ("Not really") and moves on to challenge the news comment's authenticity, as "just someone making up another lame excuse against wearing masks". Faried then refers to the broader semiotic landscape to argue that sign language and lip reading are only two of the resources that hearing-impaired people rely on in communication, that most deaf people have hearing aids, and are "highly unlikely not to know about the available technology let alone not be already using it". Inserted at the end is a hyperlink to a review of apps for people with hearing loss published on UK's AbilityNet's website.

Faried's comment thus reflects a critical orientation to discourse, hypothesising about the hidden agenda behind the news comment and draws on institutional authority (AbilityNet) to raise awareness of communication technologies that hearing-impaired people use in addition to embodied resources (e.g. sign language, lip reading). It also represents an act of "sociolinguistic citizen arrest" (Rymes, 2021, p. 29), as it calls out an attempt to legitimise a communication practice (removing one's mask to enable lip reading) that counters measures for reducing the risk of infection.

Faried's comment itself attracts criticism from members of PanMeMic, a series of "counter-arrests" in Rymes's terms (2021, p. 30), for its limited appreciation of diversity within the deaf community, direct attack on the news comment and implied negative judgement of the opening post. Bethan first points to similar concerns from the deaf community being reported by UK media. Elisabetta argues against over-generalisation (Figure 12.4), elaborates on the complex relationship between social power, communication and technology, and indirectly appeals to moral values such as social equity and inclusion: "Don't assume apps are an easy fix for a world that's designed only for hearing people. And, as a

Faried Osman
Not really.
This stinks of someone trying to be clever but failing
miserably.
"I'm sharing this very important point made by a hearing
impaired 'friend'" is a big give away.
Its just someone making up another lame excuse against
wearing masks.
First of all most hard of hearing people are not Stone Deaf
and wear hearing aids.
Even if they are Stone Deaf which is quite rare, today's
technology has had the answer for some time.
In this day and age of smartphones, deaf people already use
apps that convert speech into words on the phone's screen.
Highly unlikely this guy is really speaking on behalf of a deaf
friend and probably has no deaf friends at all.
if he had, he would be aware that sign language or lip
reading aren't the only way deaf people communicate today.
A deaf person would not only know about these apps but
would most probably already be using one.
If they didn't already use such an app, they would know to
download one instead of getting a friend to moan about
masks.
Infact these apps are standard for many deaf people today.
A deaf person is highly unlikely not to know about the
available technology let alone not be already using it.
Here are just a few and how they work.
https://abilitynet.org.uk/.../9-useful-apps-people-who...
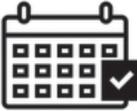
ABILITYNET.ORG.UK
**9 Useful apps for people who are Deaf
or have hearing loss | AbilityNet**

Like · **Reply** · **Share** · 1y

Bethan Davies
Faried Osman I cant comment on this particular
poster but there has been stuff about this in the UK
media (involving deaf people and deaf organisations
from early on in the pandemic. So I think it is a concern
for *some*. I know I rely on lip reading a bit in more
noisy contexts – though that's usually the pub!

Like · **Reply** · **Share** · 1y

Figure 12.3 The masks and lip-reading debate – first and second comment.
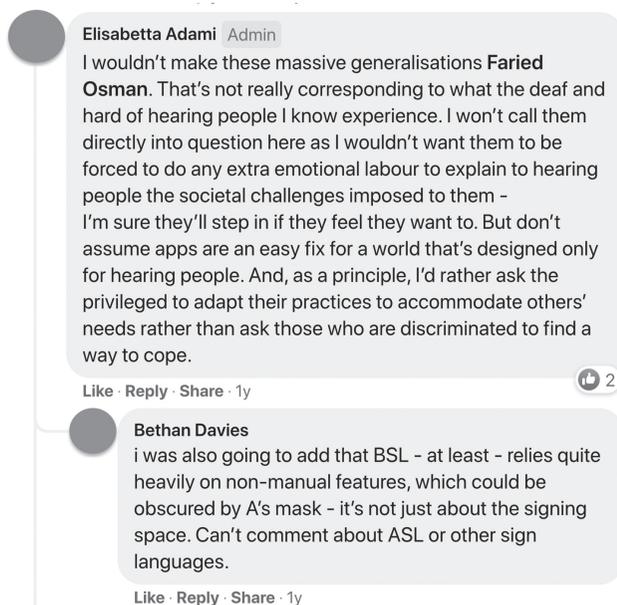
Figure 12.4 The masks and lip-reading debate – third and fourth comment.

principle, I'd rather ask the privileged to adapt their practices". Bethan points out that (British) sign language incorporates more than hand gestures and masks can hamper signed communication, which implicitly counters Chris's initial post. Marie explains that many hearing-impaired people are elderly and unlikely to be using apps, and that in many situations (e.g. at the supermarket) factors such as noise and time constraints limit the effectiveness of apps and hearing aids (Figure 12.5).

These criticisms further highlight the multi-voiced intertextuality of this FB exchange. Marie's top comment in Figure 12.5 stresses: "Whilst the comment could, possibly, be read as anti mask the question here was certainly not. The idea that more people could be prompted to learn even basic sign language is a good one". Marie appears to appreciate Faried's critical approach to discourse and the possibility of a hidden "anti-mask" agenda in the news comment, and thereby demonstrates awareness of the ubiquity of manipulative messages related to COVID-19 on social media.

Anna joins the exchange (middle comment in Figure 12.5) to tell a personal story – in a furniture store, the owner, who was deaf and wearing a double-valve mask, explained that he will keep his mask on so that she could remove hers and they could speak while standing two metres apart. Anzir (final comment in Figure 12.5) simply offers a link to a YouTube video titled "Are clear masks helpful?" by hearing-impaired social inclusion advocate and influencer Jessica Kellgren-Fozard, who at the time of

Marie Wilson
There are some excellent apps available. However it has to be accepted that a significant number of people who deaf or hard of hearing are also elderly and less likely to use apps. Additionally it is not as simple as "using an app", when stood in tesco with all the background noise aids will often not be enough and lip reading would often be used. Asking a staff member to "just hang on and say all that again, I need to get my app working" isn't exactly ideal and can make a person feel like they are standing out where they would have managed preciously.

Whilst the comment could, possibly, be read as anti mask the question here was certainly not. The idea that more people could be prompted to learn even basic sign language is a good one. It would be advantageous for many reasons and I have long felt children should learn basic signing alongside the other things they learn. The hearing community learning sign language is not a move to make the deaf community dependent on them or to suggest the deaf community should not be self reliant.

Like · **Reply** · **Share** · 1y   👍 2

Anna Belladelli
I went to a furniture store last month and the owner/carpenter was deaf. He was wearing a heavy mask (the one with the double valve) and told me: I am wearing this mask so you are protected. Please remove yours and speak while standing 2 meters away, so we can talk. I kept the mask on when he talked and lowered mine when I talked. So the problem is real but I guess there's no way around it. A minimum level of risk is always there, and I guess the idea of being 100% safe (from covid and from danger in general) is unachievable and misguiding.

Like · **Reply** · **Share** · 1y   👍 5

Anzir Boodoo
https://www.youtube.com/watch?v=IBlRf77D0bc

> ▶   ⓘ
> YOUTUBE.COM
> Are clear masks helpful? [CC]

Like · **Reply** · **Share** · 1y   👍❤ 2

Figure 12.5 The mask and lip-reading debate – fifth, sixth and seventh comment.

writing had 836K subscribers. At the start of her video, Kellgren-Fozard greets her viewers with a spoken and simultaneously signed "hello lovely people". She does it five times, through a sequence of five jump cuts, all with closed captions: the first time she does not wear a mask, in the other four she wears different types of masks. The jump-cut technique makes the visibility or invisibility of lip movements immediately salient, while the closed captions show the sounds that can or cannot be heard in each version of the greetings. This gives an immediate sense of the key theme of the video, which she then announces as follows: "we are going to be looking at the specific difficulty masks create for deaf people and how we can work around it". This brings into the exchange yet another voice (the authority of a role model in terms of van Leeuwen's (2008) legitimation categories), and illustrates a way in which social media allow different voices to be included more authentically than in the news comment from the opening post, and legitimation to be realised using resources other than language alone (see van Leeuwen 2018 on legitimation and multimodality). Anzir's shared video (even for those who watch only the opening) provides legitimation also by showing, hence through what we would call "demonstration", a type of legitimation not captured in van Leeuwen's categories. Van Leeuwen's framework was derived from language, which can describe but not show actual semiotic practices, unless they are predominantly verbal. A video, by contrast, can reproduce a multimodal semiotic practice, thus legitimising through evidence or demonstration.

Beyond including different voices, PanMeMic provides opportunities for sustained exchanges about communication and interaction during the pandemic and beyond. For example, the criticisms prompt Faried to legitimate his critical reading of the news comment with reference not only to customs in the broader social context but also by drawing on his personal experience of learning two sign languages, which had proven useful in his job as a surgeon. Drawing on rationalisation and moral values, too, he argues that the British public (conformity) had shown no concern for other peoples' safety (a moral value), so expecting people to learn sign language for the sake of others would be "unrealistic" (rationalisation). He then adds that the hundreds of deaf people he's interacted with (which includes two members of his family) "are just as *capable* of doing the *sensible safe* thing as everybody else and would rather be *self dependent*" – a statement loaded with references to moral values (italicised) that seeks to rationalise Faried's unwavering pro-mask stance.

On 25 February 2021, seven months after Chris's opening post, Emma, a hearing-impaired member of PanMeMic, joined this exchange too (prompted by our request for her feedback on a draft of this chapter). In a series of direct replies to Faried (tagged with @Faried), she explained that: (1) sign languages often rely on facial expressions and lip patterns and without lip reading she feels lost (which aligns with Bethan's comment);

(2) masks interfere with hearing aids and even cochlear implants, and good-quality listening devices and speech-to-text converters are not easily affordable (as Marie had written); (3) some people, like her, may also have neurological disorders that hinder the use of hearing aids, while those over 50 may not have grown up as part of the deaf community and not know sign language; (4) studies of deaf teenagers show their preference for texting – a practice that helps avoid the risk of discrimination associated with using sign language, but breaches norms of politeness as it involves looking at one's phone, rather than one's conversation partner; (5) visors, which she had tried at work, are not only less effective than masks in protecting against infection but interfere with hearing aids and lip reading too (as discussed in the video Anzir shared); and (6) she is not an anti-masker, and her son is shielding, yet deaf people have a right to reasonable accommodations such as people standing two metres away and briefly lowering their masks to enable lip reading (here echoing Anna's personal experience). Instead of having their rights respected, she continues, "since the beginning of this crisis disabled people have been told that their right to exist, let alone live well, needs to be sacrificed for the greater good". Thus her argument includes yet more voices (e.g. teenagers; researchers) and legitimation that combines personal and expert authority, reference to norms of politeness, or what van Leeuwen (2008) would classify as the authority of tradition and custom, the impersonal authority of human rights, as well as storytelling, and countering the impersonal authority implied in "disabled people have been told that … ".

Faried replies to Emma acknowledging the communicative issues that mask wearing raises and "the importance of face expression and body language" for deaf people, drawing an analogy to issues faced by "non English speaking people who interact with people who only speak English". His comment then stresses the need to find a solution that is "safe, practical, efficient and doesn't require intense learning and would help the significantly hard of hearing during the present circumstances where masks are necessary to provide a good degree of protection".

This long and rather complex exchange illustrates PanMeMic's potential as a forum for the dynamic and ongoing co-construction of social semiotic knowledge that can transform multimodal communication and interaction during and beyond the pandemic. We summarise three key aspects below.

First, the exchange saw members of PanMeMic sharing knowledge about and reflecting upon different semiotic resources, technologies and practices such as: sign languages and their reliance on non-gestural resources; lipreading and lifting one's mask while staying at a safe distance to enable it; the uptake of speech-to-text conversion apps by people of different ages, for different reasons and in different contexts; multilingualism and issues faced by those not proficient in the majority language; and the ways resources such as lip reading and sign language and

technologies such as hearing aids and cochlear implants may be impacted by the wearing of personal protection equipment such as masks and visors.

Second, this exchange brings to the fore the participants' aptitude for critical orientation to discourse. This is evident in their awareness not only of tensions between discourses of infection control, safety or prevention and discourses in support of inclusive and equitable communication practices (which may be deployed to conceal anti-mask arguments), but also of the role of the pandemic in revealing and exacerbating inequities in everyday communication and interaction, such as those powered by ableist, ageist or language ideologies. Such critical perspectives on discourse both reflect and rely on people's "nuanced attention to human interaction and its situational intricacies" (Rymes, 2021, p. 86).

Thirdly – and most importantly for PanMeMic as a transmedia forum designed to extend citizen sociolinguistic principles to multimodal communication and interaction – the exchange demonstrates the value of a sustained dialogue that includes diverse voices and arguments supported by a range of legitimation strategies for fostering grassroots change towards fairer, more inclusive and effective multimodal communication and interaction practices during and beyond the pandemic.

Discussion and conclusion

Forms of participatory multimodal research are not new (see for example Jewitt et al., 2016; Jewitt et al., 2020; Potter & Cowan, 2020). The case we are making here, however, shifts the perspective from participants involved in academic research to all people as agents in and contributors to everyday acts of social semiotic inquiry, and to our own engagement, as academic researchers, in these acts.

Stemming from Rymes's citizen sociolinguistics, which "recognizes everyday conversations about language as not only an area of inquiry, but also a locus of expertise and a means of sharing knowledge" (2021, p. 24), we shift the focus from language to semiotic practices in their multimodal range. The case of PanMeMic examined here shows people's role as socio-semioticians themselves, in not only creating but also witnessing, describing, supporting, evidencing and counter-evidencing, labelling/codifying, legitimating, counterarguing and negotiating semiotic practices and, in so doing, co-creating shared semiotic knowledge. In PanMeMic, we have offered a space for everybody to shape and participate in, irrespectively of whether they are academics or not, let alone professional semioticians, as even those of us who are multimodalists, linguists and communication scholars have been sharing and discussing our own and others' personal, localised everyday experiences and perspectives.

From the perspective of traditional multimodality research, the validity and generalisability of our findings are limited. Drawn in through the

founding team's personal networks of Facebook friends and colleagues, PanMeMic's Facebook group, albeit transnational, is possibly restricted in demographic variables such as its members' age or education levels, and the range of their views; and yet the second exchange we analysed still represents very different positions and some polarisation in relation to conflicting discourses (i.e. the tension between countering anti-maskers to contribute to ensuring collective safety vs legitimising the communicative needs of discriminated and marginalised social groups). Most importantly, from our perspective, the findings from collective, everyday acts of socio-semiotic inquiry gain validity "through participation in this community" (Rymes, 2021, p. 99); they are contextual, detailed and relevant to people themselves who contribute to such forms of multimodal research.

The analysis of PanMeMic discussions is brought here not as a case study *per se* but rather as an example of the diffused and distributed semiotic knowledge that is present, shared, negotiated and co-constructed every day, and of how this is done, through description, evidencing, codification, provision of variants, and through forms of legitimation that bring in one's own personal experiences as well as other voices. In this, the affordances of social media platforms offer some advantages. They allow for open conversations drawing in different voices through the sharing of links and multimodal forms of expression, thus enabling co-construction of knowledge beyond writing, through multimodal legitimation also by showing, through "demonstration" (for example, the video that Anzir shared as a comment, to make his point in the discussion). While we all observe, discuss and comment on semiotic practices all the time, offline as well as online, social media enable reach beyond "the pub chat". Firstly, because they make possible the transnational coming together of diverse voices in "affinity spaces" (Gee, 2005). This affords the consequent potential sharing and spreading of semiotic practices beyond the limitations of physical space and movement. Besides the case of the backpack hug, which "travelled" from Italy to Canada, many discussion threads in the PanMeMic Facebook group had participants sharing semiotic practices taking place in their countries, with other members commenting on how these compared with practices in their own areas. It also enables views beyond those in our immediate personal networks to interact. In the discussion on masks and sign language, for example, Emma's intervention as a hearing-impaired person offered a key perspective on the issue for the other – all hearing – participants to consider, potentially enriching their exposure to diverse experiences beyond not only national but also other sociocultural group boundaries. Secondly, social media make it possible to track and record as well as offer open access to such interactions, to an extent that would be difficult to achieve for interactions occurring offline.

The case of PanMeMic is also different from more traditional (multimodal or not) discourse analysis of online discussion data. As researchers,

we not only offered a space for but participated ourselves in informal discussions with other members of PanMeMic (see Elisabetta's comment in the second example analysed). This has created opportunities for all of us, both multimodality scholars and those who have a personal interest in discussing semiotic and interactional practices, to engage in a collective inquiry and invite others to join the dialogue. We further invited members of the group to verify our interpretations of the discussion and to check, further discuss and contribute to the analysis presented in this chapter. We joined in the conversations with others, generating relational ways of inquiry and mutual learning that are very different from both the methods and the outcomes of any textual analysis or covert observation methodologies.

Responding to the theme and concerns of this volume, we hope our contribution has shown that discourse analysis can be used not only to identify how discourse shapes reality ideologically, as critical discourse analysts do, but also, as in our case, to find insights into semiotic practices that are being co-constructed, shared and legitimated while being talked (or written) about. Even more, our findings show everyday people's contributions as discourse analysts, as the exchanges examined reveal analytical insights and critical approaches to discourse that people show when participating in discussions. Together with its usefulness, our analysis shows also the limitations of discourse analysis, and how involving the text producers themselves offers further insights as, in the backpack hug example, confirmation that a semiotic practice being talked about has actually been used by one and has instead been replaced by its first proponent. In sum, we believe we have offered a glimpse into the benefits of adopting an ethnographic, engaged and involved approach to participating in discourse and its analysis.

Notes

1 All those who contributed to the exchanges discussed have also been involved in reading analysis drafts and providing further feedback. While one has wished to stay anonymous, they have all agreed for their contribution to be acknowledged. We also wish to thank Ben Rampton for his insightful contributions while PanMeMic was taking shape and guidance on questions about tacit knowledge and other issues in ethnography.

2 This method has been used to compare social practices (e.g. Djonov & van Leeuwen's (2018) analysis of the practice of double-blind peer review of journal articles and its digital recontextualisation as commenting on contributions in ResearchGate), and could be employed for examining how embodied practices (e.g. greeting a close friend, dropping off a child at school, keeping in touch with relatives in aged care) have been transformed during the pandemic (e.g. wearing a mask has been added as an eligibility condition that the presentation style of someone wishing to visit a relative in aged care or hospital must now meet).

References

Adami, E., & Ramos Pinto, S. (2020). Meaning-(re)making in a world of untranslated signs: Towards a research agenda on multimodality, culture, and translation. In M. Boria, Á. Carreres, M. Noriega-Sánchez, & M. Tomalin (Eds.), *Translation and multimodality: Beyond words* (pp. 71–93). Routledge.

Adami, E., Al Zidjaly, N., Canale, G., Djonov, E., Ghiasian, M. S., Gualberto, C., … Zhang, Y. (2020). PanMeMic Manifesto: Making meaning in the Covid-19 pandemic and the future of social interaction. *Working Papers in Urban Language & Literacies*, *paper 273*, 1–22.

Djonov, E., & van Leeuwen, T. (2011). The semiotics of texture: From tactile to visual. *Visual Communication*, *10*(4), 541–564. https://doi.org/10.1177/1470357211415786

Djonov, E., & van Leeuwen, T. (2018). Social media as semiotic technology and social practice: The case of ResearchGate's design and its potential to transform social practice. *Social Semiotics*, *28*(5), 641–664. https://doi.org/10.1080/10350330.2018.1504715

Garfinkel, H. (1976). *Studies in Ethnomethodology*. Polity Press.

Gee, J. P. (2005). Semiotic social spaces and affinity spaces: From *The Age of Mythology* to today's schools. In D. Barton & K. Tusting (Eds.), *Beyond communities of practice: Language, power and social context* (pp. 214–232). Cambridge University Press.

Goffman, E. (1983). The interaction order: American Sociological Association, 1982 presidential address. *American Sociological Review*, *48*(1), 1–17. https://doi.org/10.2307/2095141

Hymes, D. (1980). What is ethnography. In *Ethnography, linguistics and normative inequality* (pp. 3–16). Taylor & Francis.

Jewitt, C., Price, S., Mackley, K. L., Yiannoutsou, N. & Atkinson, D. (2020). *Interdisciplinary insights for digital touch communication*. Springer Nature.

Jewitt, C., Xambo, A. & Price, S. (2016). Exploring methodological innovation in the social sciences: the body in digital environments and the arts. *International Journal of Social Research Methodology*, *5579* (February), 1–16. https://doi.org/10.1080/13645579.2015.1129143

Kingod, N., Cleal, B., Wahlberg, A. & Husted, G. R. (2017). Online peer-to-peer communities in the daily lives of people with chronic illness: A qualitative systematic review. *Qualitative Health Research*, *27*(1), 89–99. https://doi.org/10.1177/1049732316680203

Kress, G. (1997). *Before writing: Rethinking the paths to literacy*. Routledge.

Kress, G. (2003). *Literacy in the new media age*. Routledge.

Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. Routledge.

Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. Arnold.

Mudliar, P., & Raval, N. (2018). "They are like personalized mini-Googles": Seeking information on Facebook groups. In T. Bui (Ed.), *51st Hawaii International Conference on System Sciences* (pp. 2058–2067). Curran Associates.

Potter, J., & Cowan, K. (2020). Playground as meaning-making space: Multimodal making and re-making of meaning in the (virtual) playground. *Global Studies of Childhood*, *10*(3), 248–263. https://doi.org/10.1177/2043610620941527

Rymes, B. (2021). *How we talk about language: Exploring citizen sociolinguistics*. Cambridge University Press. https://doi.org/10.4324/9780203103180-8

Rymes, B., & Leone, A. R. (2014). Citizen sociolinguistics: A new media methodology for understanding language and social life. *Working Papers in Educational Linguistics*, *29*(2), 25–43.

van Leeuwen, T. (2005). *Introducing social semiotics*. Routledge.

van Leeuwen, T. (2006). Semiotic theory and semiotic practice. In M. Amano (Ed.), *Multimodality: Towards the most efficient communications by humans* (pp. 17–27). Nagoya University.

van Leeuwen, T. (2008). *Discourse and practice: New tools for critical analysis*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195323 306.001.0001

van Leeuwen, T. (2018). Legitimation and multimodality. In R. Wodak & B. Forchtner (Eds.), *The Routledge handbook of language and politics* (pp. 218–232). Routledge.

van Leeuwen, T., Djonov, E. & O'Halloran, K. L. (2013). "David Byrne really does love PowerPoint": Art as research on semiotics and semiotic technology. *Social Semiotics*, *23*(3), 409–423. https://doi.org/10.1080/10350 330.2012.738998

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Note: Page numbers in **bold** and *italics* denote tables and figures, respectively.