

Visual spokespersons and the localisation vs.
globalisation of visual elements in communication
through narrative images online - An analysis of global
and localised websites of multinational pharmaceutical
companies

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Visual spokespersons and the localisation vs. globalisation of visual elements in communication through images online: An analysis of global and localised websites of multinational pharmaceutical companies

Objective of the study

The objective of the study was to examine the visual communication of multinational pharmaceutical companies through images on their global corporate website as well as two localised websites: their home country and China. The study focused on human roles depicted in the images and examined the transferability of the source credibility effect from marketing communications into visual communication. In addition, by the means of comparing and contrasting, the study investigated whether pharmaceutical companies globalised visual elements across the three websites or whether the elements were all localised to the target audience.

Methodology and the analytical framework

The study consisted of a semiotic analysis, which examined the meaning conveyed through images on the websites, as well as a content analysis, which produced counts of frequency of the visual elements. Data consisted of 257 images including narrative themes found on the websites of four companies: Novartis, Orion, Pfizer and Sanofi. A total of 503 figures in the images were analysed. The analytical framework for the study was comprised of the visual grammars of Kress and van Leeuwen (2006) and O'Toole (1994), and looked at the data through three metafunctions of meaning-making (interpersonal, representational and compositional) and two units of rank (work and figure).

Findings and conclusions

The study found that pharmaceutical companies use visual communication through images not only to inform website visitors about their operations but also to demonstrate the impact of medicinal products in the lives of consumers in a more informal setting. Illnesses and old age are topics, which are, however, neglected in the images. Four groups of visual spokespersons could be recognised in the images: consumers, business professionals, employees and experts. The key signifiers of the groups were their clothing and the image setting. Each group was deemed to enable the source credibility effect to take place, although in different contexts and with varying credentials. Localisation was the strategy most commonly adopted by the pharmaceutical companies in the images across their global, home country and Chinese websites. Interestingly, however, globalisation was utilised to a great extent at the rank of figure. Future research into the topic could for example incorporate a comparison between the intended and actual message through company and website visitor interviews.

Key words: visual communication, source credibility effect, globalisation, localisation, pharmaceutical industry, websites

Visuaaliset puolestapuhujat ja visuaalisten elementtien lokalisointi vs. globalisointi viestinnässä kuvien kautta verkossa: Kansainvälisten lääkeyritysten globaalien ja lokalisoitujen verkkosivujen analyysi

Tutkimuksen tavoitteet

Tutkimuksen tavoitteena oli selvittää miten kansainväliset lääkeyritykset viestivät kuvien kautta globaalilla verkkosivuillaan sekä kahdella lokalisoiduilla verkkosivuillaan, kotimarkkinansa sekä Kiinan. Tutkimus keskittyi ihmisrooleihin kuvissa ja tutki lähdeuskottavuuden vaikutusta visuaalisessa viestinnässä. Vertailemalla sivustoja tutkimus lisäksi selvitti mitä visuaalisia elementtejä lääkeyritykset käyttivät globaalisti läpi tutkittujen verkkosivustojensa, ja mitkä elementit he lokalisivat kohdeyleisöille.

Tutkimusmenetelmät ja analyttinen viitekehys

Tutkimuksessa hyödynnettiin semioottista analyysiä, jolla tutkittiin verkkosivuilta löydettyjen kuvien välittämät viestit, sekä sisällön analyysiä, jonka avulla visuaaliset elementit kvantifioitiin. Tutkimusaineisto koostui 257 juonellisesta kuvasta, jotka kerättiin neljän eri lääkeyrityksen verkkosivuilta: Novartiksen, Orionin, Pfizerin ja Sanofin. Yhteensä 503 kuvissa ollutta ihmishahmoa analysoitiin. Tutkimuksen analyttinen viitekehys koostui Kressin ja van Leeuwenin (2006) sekä O’Toolen (1994) visuaalisista kieliopeista, joiden pohjalta aineistoa tutkittiin kolmen viestinnän tehtävän (interpersonaalinen, representationaalinen ja kompositionaalinen) sekä kahden visuaalisen tason (työ ja hahmo) kautta.

Tutkimustulokset ja johtopäätökset

Tutkimus osoitti, että lääkeyritykset käyttävät visuaalista viestintää kuvien kautta sekä kommunikoimaan verkkosivuilla vierailijoille liiketoiminnastaan että demonstroimaan tuotteidensa vaikutuksia kuluttajien elämiin epävirallisemmassa yhteydessä. Yritykset eivät kuitenkaan sisällyttäneet viitteitä sairauksiin tai vanhuuteen verkkosivujensa kuvissa. Neljä visuaalisten puolestapuhujien ryhmää tunnistettiin: kuluttajat, bisneshenkilöt, työntekijät ja ekspertit. Tunnistus perustui etenkin hahmojen vaatetuksen ja kuvan ympäristöön. Jokaisen ryhmän todettiin mahdollistavan lähdeuskottavuuden siirtymisen hahmosta kuvaan vaikkakin eri konteksteissa ja eri ominaisuuksilla. Lääkeyritykset käyttivät yleisesti lokalisointistrategiaa visuaalisessa viestinnässä kuvien kautta globaalilla sekä kotimarkkinoillaan että Kiinan markkinoille lokalisoiduilla sivustoillaan. Hahmojen osalta lääkeyritykset kuitenkin käyttivät globalisointia. Tulevissa aiheen tutkimuksissa voitaisiin esimerkiksi vertailla kuvien haluttua ja toteutunutta viestiä yritys- ja verkkosivuvierailijahaastattelujen kautta.

Avainsanat: visuaalinen viestintä, lähdeuskottavuus, globalisointi, lokalisointi, lääketeollisuus, verkkosivut

Table of contents

1. Introduction	1
<i>1.1 Research problems</i>	2
<i>1.2 Research objectives and questions</i>	3
<i>1.3 New knowledge to be gained to the field of IBC</i>	5
<i>1.4 Structure of the thesis</i>	7
2. Literature review	9
<i>2.1 Pharmaceutical industry and the case companies</i>	9
2.1.1 A brief look at the pharmaceutical industry	9
2.1.2 Case companies	12
<i>2.2 Visual communication</i>	15
2.2.1 Systemic functional linguistics	16
2.2.2 Visual grammar	18
2.2.3 Prior research on visual elements	19
2.2.4 Global visual communication	22
2.2.5 Visual communication in the pharmaceutical industry	23
<i>2.3 Websites as communication channels</i>	24
2.3.1 Websites in global communication	26
2.3.2 Localisation, globalisation and glocalisation of communication on websites	27
2.3.3 Visual communication on websites	29
2.3.4 Websites as communication channels in the pharmaceutical industry	30
<i>2.4 Source credibility effect</i>	31
2.4.1 Spokespersons	31
2.4.2 Visual spokespersons	34
2.4.3 Spokespersons and stereotyping in the pharmaceutical industry	35
<i>2.5 Analytical framework</i>	37
2.5.1 Interpersonal function	38
2.5.2 Representational function	43
2.5.3 Compositional function	45

3. Data and methods	50
3.1 <i>Research methods</i>	50
3.1.1 Semiotic analysis	51
3.1.2 Content analysis	51
3.2 <i>Data collection</i>	52
3.3 <i>Trustworthiness of the study</i>	54
4. Findings	56
4.1 <i>General findings</i>	56
4.2 <i>Findings on the interpersonal metafunction</i>	62
4.2.1 Findings on the interpersonal metafunction by company	67
4.2.2 Findings on the interpersonal metafunction by website	71
4.2.3 Findings on the interpersonal metafunction by section	74
4.2.4 Findings on the interpersonal metafunction by spokesperson group	78
4.3 <i>Findings on the representational metafunction</i>	81
4.3.1 Findings on the representational metafunction by company	82
4.3.2 Findings on the representational metafunction by website	85
4.3.3 Findings on the representational metafunction by section	87
4.3.4 Findings on the representational metafunction by spokesperson group	89
4.4 <i>Findings on the compositional metafunction</i>	91
4.4.1 Findings on the compositional metafunction by company	92
4.4.2 Findings on the compositional metafunction by website	94
4.4.3 Findings on the compositional metafunction by section	96
4.4.4 Findings on the compositional metafunction by spokesperson group	99
5. Discussion	102
5.1 <i>The representation of the pharmaceutical industry in the images</i>	102
5.2 <i>The visual spokespersons used in the images</i>	105
5.3 <i>Source credibility effect in the images</i>	110
5.4 <i>Localised vs. globalised elements in the images</i>	114
6. Conclusion	121
6.1 <i>Research summary</i>	121
6.2 <i>Practical implications</i>	126
6.3 <i>Limitations of the study</i>	127
6.4 <i>Suggestions for further research</i>	128
References	129

Appendices	143
<i>Appendix 1: The analysis of the narrative images in terms of the website and section</i>	<i>145</i>
<i>Appendix 2: The analysis of the narrative images at the rank of work</i>	<i>166</i>
<i>Appendix 3: The analysis of the narrative images at the rank of figure</i>	<i>178</i>

List of figures

Figure 1: The stratification of written language. Adapted from Halliday & Matthiesen (2004, p. 25)	16
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List of tables

Table 1: The topic, focus and context of the study	3
Table 2: A map of visual grammar. Adapted from O'Toole (1994, p. 24)	19
Table 3: The analytical framework for the study	49
Table 4: Unique images by case company	56
Table 5: Images by website	57
Table 6: Unique images by website section	58
Table 7: Website and section by company	59
Table 8: Section by website	60
Table 9: Spokespersons in images	61
Table 10: Results on the interpersonal elements at the rank of work by company	68
Table 11: Results on the interpersonal elements at the rank of figure by company	71
Table 12: Results on the interpersonal elements at the rank of work by website	73
Table 13: Results on the interpersonal elements at the rank of figure by website	74
Table 14: Results on the interpersonal elements at the rank of work by section	77
Table 15: Results on the interpersonal elements at the rank of figure by section	78
Table 16: Results on the interpersonal elements at the rank of work by spokesperson group	80
Table 17: Results on the interpersonal elements at the rank of figure by spokesperson group	81
Table 18: Results on the representational elements at the rank of figure by company	84
Table 19: Results on the representational elements at the rank of figure by website	86
Table 20: Results on the representational elements at the rank of figure by section	88
Table 21: Results on the representational elements at the rank of figure by spokesperson group	90
Table 22: Results on the compositional elements at the rank of work by company	93
Table 23: Results on the compositional elements at the rank of figure by company	94
Table 24: Results on the compositional elements at the rank of work by website	95
Table 25: Results on the compositional elements at the rank of figure by website	96
Table 26: Results on the compositional elements at the rank of work by section	97
Table 27: Results on the compositional elements at the rank of figure by section	98

Table 28: Results on the compositional elements at the rank of work by spokesperson group	100
Table 29: Results on the compositional elements at the rank of figure by spokesperson group	101
Table 30: Visual spokespersons and their signifiers	106
Table 31: An analysis of the spokespersons' source credibility	113
Table 32: Globalised and localised visual elements	120

1. Introduction

Websites are an important communication channel for companies to reach their target audiences (Maynard & Tian, 2004, p. 285). The internet, and websites as a result, is global by nature, which makes it the medium of choice for companies that want to communicate internationally (Zahedi & Bansal, 2011, p. 148). As international trade has become easier and companies have turned multinational (Hopearuoho & Ventola, 2009, p. 185), so has international communication also become common practice in companies.

Research has shown that corporate websites have a significant impact on a company's image and performance (Maynard & Tian, 2004; Chun & Davies, 2001; Sullivan, 1999), which highlights the importance of how a company presents itself online. In addition, Lindgaard et al. (2006, p. 125) found that website visitors form an opinion on the website in as short a time as 50 milliseconds. The importance of websites as a channel for intercultural communication makes it a topic of interest for both academic researchers and corporate practitioners alike.

The use of images and pictures on company websites has become a norm in today's business world. According to the findings of Lindgaard et al (2006) website visitors rate the pleasantness of their visit based on its visual appeal. Research also shows that visitors often scan images before reading textual information on a website (e.g. Faraday, 2000, cited in Djamalbi et al., 2011). These factors highlight the importance of images as tools of communication online (Zahedi & Bansal, 2011). Images are used online to add informational value to websites, to engage the viewer, or to balance the textual content on the website (Baratis et al., 2008, p. 1195). Furthermore, Zahedi and Bansal (2011, p. 147) found that companies use pictures and animation on their websites to convey subtle messages that are communicated more effectively through nonverbal means. In an environment where it is easy for audiences to tune out or avoid messages altogether, the effectiveness of messages is crucial for the success of companies (Singh et al., 2005, p. 72).

Kress and van Leeuwen (2006, pp. 4 & 35) point out that visual messages are always in a coded form and only those who are aware of the code can interpret the messages correctly. This creates an increased risk for multinational companies (MNCs) to “visualise out of turn”. As company websites can be accessed globally, companies need to make sure that the images they use on their website communicate harmoniously in a global tone (Halliburton & Ziegfeld, 2009). Although multinational companies prefer to build a consistent international brand through the use of a global tone to maximize the amount of potential customers reached (Hopearuoho & Ventola, 2009, p. 185) there is an increasing number of studies suggesting that the localisation of communication messages yields better returns for companies despite the higher initial investment needed (e.g. Zahedi & Bansal, 2011; Cyr et al., 2009; An, 2007; Taylor et al., 2007; Luna et al., 2002). As a result, a balance needs to be achieved between the elements that can be globalised for consistency and cost-effectiveness, and those that should be localised for better adaptation to target markets.





1.1 Research problems

Currently research on visual communication on websites has focused on its impact on usability (e.g. Djamasbi et al., 2011) and on creating trust and loyalty (e.g. Cyr, 2008) but the content of global visual messages has received little attention so far. A common characteristic in previous studies is also that they tend to concentrate on e-commerce websites instead of corporate websites in general. Furthermore, although some studies have purely concentrated on the images on websites (e.g. Cyr et al., 2009) many studies look at websites as whole entities, where all the various elements of a website are studied simultaneously (e.g. Djamasbi et al., 2011).

The purpose of this thesis is to study the visual communication that global pharmaceutical companies use on their corporate website as well as localized websites in their home market as well as a foreign one. The study will focus on the human roles that are depicted in the images found on corporate websites of four global pharmaceutical companies (Novartis, Orion, Pfizer and Sanofi). The roles will be

reflected upon spokespersons commonly used in marketing communications, thus the thesis combines elements of both visual and marketing communications. Furthermore, by the means of comparing and contrasting the study investigates which elements the case companies standardize across their different websites and which ones they feel need to be localized to communicate visually to target markets effectively. In an era of “glocalization” (Singh et al., 2005, p. 72. The concept is discussed in more detail in Section 2.3.1) this study sheds light into whether visual communication is seen by global pharmaceutical companies as something that needs to be localised for greater adaptation to the target market or something that can be standardised in order to save resources.

Table 1: The topic, focus and context of the study

TOPIC	Visual communication		
FOCUS	Source credibility effect	Localised vs. globalised elements	
CONTEXT	4 companies		
			
			
3 websites each	Global	Home country	Chinese
5 websites each	Homepage Products & Services	About us	R&D Sustainability

1.2 Research objectives and questions

As already established, communication through images is something that has generally been undervalued within societies (Kress & van Leeuwen, 2006, p. 35). Meaning making is therefore not as intuitive through images as it is through writing. This applies as much to companies as to individuals. MNCs face the added difficulty of operating in

a multicultural environment. When the cultural background of the viewer is different to that of the company there is an increased risk of the image being interpreted in a way that was not intended by the company, if the company does not consider these factors in advance.

This thesis will study the visual communication in the context of pharmaceutical companies' websites. The focus will be on the roles that are presented in the images because the study aims to find out if the concept of source credibility effect widely researched in the field of marketing communication can also be adapted into visual communication. Furthermore, the thesis will evaluate the extent of globalisation and localisation of visual elements in the images on the websites of multinational pharmaceutical companies. As mentioned earlier, messages communicated visually through images and pictures are always coded (Kress & van Leeuwen, 2006, p. 4). This research examines whether the pharmaceutical MNCs feel the need to localise their images to target markets in order to gain better adaptation or whether they opt for a standardised global visual language throughout their various websites. The localised website for China for each company is used for the comparison together with their global and home country websites. The research questions for the study are as follows:

1. How is the pharmaceutical industry presented in images on the websites of multinational pharmaceutical companies?
2. What kinds of visual spokespersons do multinational pharmaceutical companies use in images on their websites?
3. How do the visual spokespersons used on the websites of multinational pharmaceutical companies enable the source credibility effect to take place?
4. Which visual elements are globalised and which ones localised in the images of multinational pharmaceutical companies that are found on their corporate, home country and Chinese localised website?

The Chinese localised website was chosen for the study not only because of its importance to global companies as a target market but also because China is commonly considered as a birthplace of the Eastern medicine. Blackett and Harrison (2001, p. 48) distinguish two medical orientations from the development of healthcare: the Eastern

and the Western medicine. Both orientations aim to preserve health although their principles are profoundly different. The Eastern medicine focuses on prevention and the maintaining of wellness. The Western medicine, on the other hand, concentrates on treatment and the curing of illnesses. (Blackett & Harrison, 2001, p. 48) This distinction brings an additional element of interest into the study, which examines whether or not the distinction impacts the standardization or localization of visual elements in the images.

1.3 New knowledge to be gained to the field of IBC

International business communication (IBC) can be defined as the use of semiotic resources for formal or informal communication in an international business context. This definition is drawn from the definitions of business discourse and business communication by Bargiela-Chiappini et al. (2007) and Louhiala-Salminen (2009) respectively. Semiotic resources refer to the means of meaning-making, such as verbal, written and visual, which function within the semiotic modes of, for example, speech, writing and images. From the semiotic modes, or sign systems, communicators can choose the necessary signs to accomplish their communication purposes (Stöckl, 2004, p.11).

Following this definition, the present study fits into the field of IBC for three reasons. Firstly, the study examines the business-to-consumer online communication of four multinational pharmaceutical companies, which justifies the notion of a business context in the definition. In addition to studying multinational companies, the thesis evaluates online communication on three websites: global, home country and Chinese. This fulfils the requirement for an international context. Finally, the study investigates images found on the websites. It therefore focuses on the semiotic mode of images and in particular the semiotic resource of visual meaning-making. The thesis, therefore, studies the use of a semiotic resource for formal business-to-consumer communication in an international business context, as required by the definition of IBC.

As mentioned in Section 1.1, prior research on online visual communication has focused on technical aspects (e.g. Djamalbi et al., 2011) and on its effect on customer behaviour (e.g. Cyr, 2008). Furthermore, previous studies have mainly concentrated on e-commerce websites instead of corporate websites in general. Furthermore, although some studies have purely concentrated on the images on websites (e.g. Cyr et al., 2009) many studies look at websites as whole entities, where all the various elements of a website are studied simultaneously (e.g. Djamalbi et al., 2011).

Within the context of the pharmaceutical industry, there have been numerous studies on direct-to-consumer (DTC) communication on websites (e.g. Davis et al., 2007; Macias & Stavchansky Lewis, 2003-4), television (e.g. Frosch et al., 2007) and in print (e.g. Mehta & Purvis, 2003). These have mainly concentrated on advertising, and on the advertising of prescription based medicinal products in particular. The studies tend to either investigate the content of the adverts (e.g. Frosch et al., 2007; Macias & Stavchansky Lewis, 2003-4), the response they evoke in consumers (e.g. Kim & Lee, 2012; Chen & Carroll, 2007; Singh & Smith, 2005; Mehta & Purvis, 2003) or their impact on consumer behaviour (e.g. Polen et al., 2009; Singh & Smith, 2005; Deshpande et al., 2004). The impact of source credibility in pharmaceutical advertising has also been the point of interest in some recent studies (e.g. Kim & Lee, 2012; Limbu et al., 2012; Kim, 2011). The majority of the studies have, however, investigated the U.S. pharmaceutical industry (e.g. Kim & Lee, 2012; Polen et al., 2009; Chen & Carroll, 2007; Frosch et al., 2007; Singh & Smith, 2005; Deshpande et al., 2004; Macias & Stavchansky Lewis, 2003-4; Mehta & Purvis, 2003) instead of the global pharmaceutical industry (e.g. Mackey & Liang, 2012; Auton, 2004).

The localisation and globalisation of website content has increased in popularity as a topic of debate within academic research as the globalisation of business operations has progressed. In 2012 approximately 34 % of the population of the world were regular users of the Internet, a figure that is estimated to increase up to nearly 50 % by 2017 (Miglani, 2012). With its global reach, the internet provides a perfect medium for globalisation of communication (Maynard & Tian, 2004, p. 287) but the meaningfulness of standardising messages is questioned by many researchers (e.g. Shneur, 2012; Tixier, 2005; Singh et al., 2003; Simeon, 2001; Barber & Badre, 1998). Prior research also specifies that localisation is not just a process of translating content

to a target language but one that adapts to the culture, visual and design preferences as well as administrative specificities of the target market (Shneor, 2012, p. 354; Tixier, 2005, p. 16, Cyr & Trevor-Smith, 2004, p. 1199; Barber & Badre, 2001). Little evidence, however, is available on the effect of localisation or globalisation of visual elements on websites within the pharmaceutical industry despite the growing importance and prominence of the Internet as a source of health and medical information (Kim, 2011, pp. 57-58).

The present study will contribute to the field of IBC in that it combines the study of corporate websites with communication through images within the pharmaceutical industry, which to the author's best knowledge has not been done in previous studies. Furthermore, the source credibility effect has not previously been researched in the context of visual communication in images other than advertisements within the pharmaceutical industry. The thesis will increase understanding of how visual spokespersons influence the credibility of visual messages and will thus be able to give recommendations to pharmaceutical companies on how to communicate more effectively through images on their websites. Finally, the study will contribute to the debate on the localisation vs. globalisation of visual elements by examining an industry, which has not so far been given much attention to in terms of the debate.

1.4 Structure of the thesis

The current chapter has introduced the topic of the thesis project as well as discussed its importance as a focus of study within the field of international business communication. Furthermore, the research problem, objectives and questions were presented and discussed.

Chapter 2 provides an overview of prior research related to the present study. Section 1 discusses the pharmaceutical industry and its characteristics, and introduces the four case companies. The following sections will go on to examine key concepts of the thesis in three contexts: firstly, the concept will be looked at in terms of communication in general, secondly, it will be discussed in terms of communication in

an international setting, and finally the concept will be examined in the context of the pharmaceutical industry. The key concepts that will be discussed are in the order of appearance visual communication, websites as communication channels, and the source credibility effect. In addition, the analytical framework for the study will be presented based on the reviewed literature.

Chapter 3 will introduce the research methods that will be used to execute the study in question. The data collection process will also be discussed and the trustworthiness of the study evaluated. Chapter 4 will present the findings of the study in relation to the research questions outlined in Section 1.2. This is followed by the discussion in Chapter 5. Finally, the last chapter will present a conclusion of the study and make suggestions for future research.

2. Literature review

In this chapter, the key concepts relating to the thesis will be discussed with an emphasis on prior literature. First, the pharmaceutical industry and its development will be briefly investigated as far as is relevant in terms of this research. The case companies will also be introduced with an emphasis on the markets in which they operate. Then the three major concepts of the thesis – visual communication, websites and source credibility effect – will be described following a similar pattern. The term will be first defined based on prior research, which is then followed by a discussion on the topic in three different contexts: communicative, global and pharmaceutical. The final section presents the analytical framework for the study based on the literature.

2.1 Pharmaceutical industry and the case companies

This section will describe key developments in the pharmaceutical industry based on prior research and reflect on their relevance for the current study. In addition, it will briefly present the four case companies of the study. The section forms an important basis for the study by examining the industry specific subtleties that multinational companies face within the pharmaceutical industry.

2.1.1 A brief look at the pharmaceutical industry

The pharmaceutical industry is currently facing multiple challenges due to economic and demographic changes in the market. According to Javalgi and Wright (2003), the research and development costs for pharmaceutical companies had more than doubled in seven years by 2003. It has been forecast that global pharmaceutical companies will need to bring between 24 and 36 new medicinal products that earn between 1 and 1.4

billion US Dollars each into the market within the seven years to reach their forecast revenues (Javalgi & Wright, 2003). While doing this, pharmaceutical companies that invest heavily in the development of new medicine are facing fierce competition from companies manufacturing generic drugs based on expired patents. New medicines that are developed and brought into the market only get a relatively short period of time of brand exclusivity until the patent protection expires and other companies are allowed to replicate the product with less R&D expenditure. For example, according to Javalgi and Wright (2003), in China a pharmaceutical company that receives a Class I drug certificate is granted 12 years of exclusive manufacturing rights, pricing freedom, and priority considerations for reimbursement (p.275). Blackett and Harrison (2001, p. 45) suspect that the rate of the market changes is driven by the Internet and direct-to-consumer advertising.

For global communication, the internet is an unparalleled channel and also an increasingly important source of healthcare related information for consumers (Blackett & Harrison, 2001, p. 45). Blackett and Harrison (2001) conclude that, through the internet, patients have reinstated some of the power of deciding for their own medication that once was fully in the hands of the doctors who treat them. Now patients search the internet for illnesses that match their symptoms as well as for potential cures for them, and request for these cures from their doctors. This further highlights the importance of the internet as a means of communication for pharmaceutical companies.

Direct-to-consumer (DTC) advertising in the context of pharmaceutical advertising refers to any promotional campaign by a pharmaceutical company that aims to communicate to the general public through consumer-oriented media (Limbu et al., 2012, p. 23). The popularity of DTC advertising in the pharmaceutical industry has skyrocketed in the last twenty years, having increased an impressive 467 percent between 1996 and 2005 (Limbu et al., 2012, p. 23). It is currently a strictly regulated field in the pharmaceutical markets but there are major differences between countries. In many Asian countries as well as within the European Union, the DTC advertising of medicines is restricted to over-the-counter (OTC) products such as cold remedies, painkillers and hay fever tablets, whereas the advertising of prescription based medicinal products to consumers is banned altogether (Geyer, 2011; Blackett & Harrison, 2001). The two most notable exceptions to this policy in the world are New

Zealand and the United States, both of which allowed the advertising of prescription drugs in mass media in the late 1990's (Geyer, 2011). In the USA, the DTC advertising of pharmaceutical companies is closely monitored by the Food and Drug Administration (FDA), which maintains that the DTC advertisements must have a fair balance between the benefits and risk information that is provided to the consumers (Jambulingam & Sharma, 2010, p. 333; Calfee, 2002, p. 183). However, adverts that seek to raise awareness of the advertised illness or to simply remind patients of the product without providing any detailed information of it are exempt from the fair balance requirement (Jambulingam & Sharma, 2010, p. 333). This difference in policies provides the opportunity for multinational pharmaceutical companies to differentiate their visual messages to their US target groups on their website, which would suggest that there will be clear differences in the visual messages in North America compared to the other continents.

Due to the restrictions on the pharmaceutical industry, the buyers and the consumers of medicinal products have remained separate, as companies are not allowed to communicate directly to the end-user of the product (Blackett & Harrison, 2001). This is a much-debated issue not only in political circles but also in the field of academic research as well. The proponents of DTC advertising assure that its purpose is to inform patients, help them become more knowledgeable on medicinal issues and allow them to be more involved in their own healthcare (Limbu et al, 2012, p. 24). Furthermore, DTC adverts are said to result in earlier screenings for illnesses and encourage patient-doctor discussions on issues depicted in the adverts (Polen et al., 2009, p. 43; Calfee, 2002, p. 184). The opponents of DTC advertising in the pharmaceutical industry maintain, however, that the use of DTC advertising increases inappropriate or excessive prescriptions, increases healthcare costs, interferes with the doctor-patient relationship and fails to provide the required level of risk information (Limbu et al., 2012; Polen et al., 2009; Lexchin & Mintzes, 2002; Wilkes et al., 1992). Furthermore, Polen et al. (2012) found in their study that half of the research respondents felt that DTC advertising caused unnecessary concerns over side effects. With 17.8 % of those surveyed, these concerns raised by DTC pharmaceutical adverts led to them to stop taking their medication (p. 50). These potential risks are considered to be the reasons why DTC advertising of prescription medicine was not allowed in the

US until the 1990's and why it still remains banned in most other countries in the world (Calfee, 2002).

There is, however, another entrance to DTC marketing for prescription based drugs. The growth of the over-the-counter (OTC) sector has turned this into an attractive opportunity to pharmaceutical companies and many medicinal brands have been able to make the transition from prescription-based into OTC products (Blackett & Harrison, 2001, p. 40). Examples of such products include well-known brands such as Zyrtec, Diflucan, Canesten and Zovirax. The lure of the OTC sector for pharmaceutical companies is obvious: as the patients have become more knowledgeable, they have a greater tendency to purchase OTC products instead of going to a doctor's for a prescription. Furthermore, with fewer restrictions on communication, it is easier to make target consumers aware of your product and build a favourable brand.

Looking further back at the development of the pharmaceutical industries, there are two clearly distinguishable paths to be observed. The Eastern strategy for healthcare aims to preserve good health and wellness (Blackett & Harrison, 2001, p. 47). This is often achieved through preventive practices such as eating food products that have reported health benefits or medical properties. According to Blackett and Harrison (2001, p. 48) the Western medical orientation aims to treat established illnesses and cure infected patients. Even though both orientations focus on maintaining health, the starting point is significantly different with Eastern medicine focusing on maintaining wellness whereas the Western medicine seeks to cure illness. Despite both orientations having now spread all over the world, this distinction may have a significant impact on the communication requirements in Eastern and Western pharmaceutical markets.

2.1.2 Case companies

Four pharmaceutical companies were chosen into the present study of visual communication through images on their corporate websites. Three of the companies were chosen from the listing of biggest public companies in the world (Forbes, 2012): Pfizer, Novartis and Sanofi. The companies are respectively the three largest pharmaceutical companies in the world according to Forbes' weighting of their sales,

profits, assets and market value. Orion was chosen as the fourth case company, and it represents the largest pharmaceutical company in Finland, the author's home country. The companies will next be briefly introduced individually.

Pfizer is the largest public pharmaceutical company in the world. The US-based company was founded in 1849 and holds an estimated market value of 165.4 billion US dollars (Forbes, 2012). The company has throughout its history grown remarkably through mergers and acquisitions. Pfizer is commonly known for its research and development of medicinal products, having accumulated R&D costs of over 9 billion US dollars in 2011 (Pfizer, 2011, p. 16). The company does, however, also produce generic products. The company operates a global website as well as 43 linguistically localized websites for markets all over the world. It does not, however, have a separate home country website for the United States, which implies a degree of globalisation in the company's online communication. For this study, the images for Pfizer were collected from two websites: www.pfizer.com and the Chinese localised www.pfizer.com.cn. The images found on the Pfizer.com website will be considered in both the category of global websites as well as that of home country websites. This is done for the fact that it is not possible to distinguish whether Pfizer.com is actually used as a global website or a US localised website. If this decision was made without better knowledge this would compromise the comparisons made between the three websites. The fact will, however, be taken into account when investigating the level of localisation and globalisation in the images. (Pfizer, 2012)

Novartis is the second largest public pharmaceutical company in the world with an estimated market value of 150.4 billion US dollars (Forbes, 2012). The Swiss company was formed in 1996 through the merger of two companies, Ciba-Geigy and Sandoz. The company spent 9.1 billion US dollars on research and development in 2012 but also offers low cost generic products. The company has a global website as well as 39 localised websites for different markets around the world. The images for this study were collected from Novartis' global (www.novartis.com), Swiss (www.novartis.ch) and Chinese website (www.novartis.com.cn). (Novartis, 2012)

French company Sanofi is listed as the third largest pharmaceutical company by Forbes (2012) with an estimated market value of 103.3 billion US dollars. The company was founded in 1973 and it has grown significantly through acquisitions

throughout its existence. In 2011 Sanofi spent 4.8 million Euros (6.5 million US dollars) on research and development (Sanofi, 2011, p. F6). In addition to its global corporate website, the company has 78 additional websites with localised content. For the purpose of this study the images found on the global (www.sanofi.com), French (www.sanofi.fr) and Chinese website (www.sanofi.cn) were analysed. (Sanofi, 2012)

The fourth company for the analysis was chosen from the author's home country. Orion is the largest pharmaceutical company in Finland with a market value of around 3.2 billion Euros (4.3 billion US dollars) according to Kauppalehti (2012). No evaluation by Forbes (2012) was available. In the year 2011 Orion accumulated research and development expenses of 87.5 million Euros (118.4 million US dollars). Orion has 16 localised websites on top of the Finnish corporate website and its English language version. As the content of the English corporate website differed from the Finnish corporate website, the former was deemed as equivalent of a global corporate website, whereas the latter was analysed as the Finnish localised website. The websites analysed from Orion were, therefore, the global (www.orion.fi/en), the Finnish (www.orion.fi) and the Chinese website (www.orionpharma.cn). (Orion, 2012)

The case companies, therefore, included one US and three European pharmaceutical companies. Three of the companies (Pfizer, Novartis and Sanofi) were listed among the 2000 largest public companies in the world (Forbes, 2012) to which the largest pharmaceutical company of the author's home country was added. Due to the small number of case companies the size of the company cannot, however, in the present study be used as a variable from which to draw any conclusions. This will therefore be left for future research to investigate.

2.2 Visual communication

This section discusses the field of visual communication, which forms the overall topic of the thesis. The section will first define the concept of visual communication, then discuss its origins within the systemic functional linguistics before presenting two visual grammars, which are commonly used in the study of visual communication. Finally, the section will discuss prior research on visual communication that is relevant to the study, visual communication in a global context and visuals within the pharmaceutical industry. This section forms the majority of the theoretical basis of the study, and is therefore crucial for the achievement of the research objectives.

Visual communication can be defined as communication through visual aids and cues that can be read or viewed. Indeed, Kress and van Leeuwen (2006, p. 17) state that written communication is in fact a sub-category of visual communication; one that has so far, however, been given much more attention than other forms of visual communication. Based on their research on children's books, Kress and van Leeuwen (2006) conclude that there is an ever-increasing prominence to written communication and the so-called old visual literacy related to it. Other forms of visual communication are either seen as the domain of a very small elite of specialists or as a form of self-expression rather than communication. The latter viewpoint suggests that visual communication (apart from writing) is something that everyone can do spontaneously and that there is no need for teaching it. (Kress and van Leeuwen, 2006, p. 16). In this study visual communication will be used separately from written communication as the term to discuss communication with images and pictures.

Despite the tendency towards written communication there has been numerous studies highlighting the importance of visual elements of communication and the visual appeal. An (2007, p. 304) underlines several studies of visual messages in advertising, which showed that these are more easily processed by target audiences, and also more effective in getting their attention compared to pure verbal messages. The visual appeal of messages is thus deemed as an integral part of the communication process, as it has the power to command attention and stimulate curiosity (An, 2007; Moriarty, 1997). The findings of the study by Cyr et al. (2009), however, state that the

elements of visual communication used in images on websites can have a negative as well as a positive impact on the visitor's perceptions of the website. The effect, according to the authors, depends on the manner in which the elements are used in the images (Cyr et al., 2009, p. 556-557). The visual elements according to Kress and van Leeuwen (2006) and O'Toole (1994) are discussed in Section 2.2.2 on visual grammar. First it is, however, worth looking into the origins of the visual grammar, the Hallidayan systemic functional linguistics.

2.2.1 Systemic functional linguistics

As the grammar of visual communication is based on the field of systemic functional linguistics (SFL) this topic will be covered as an introduction into the theme. SFL is a social semiotic approach to linguistics developed by Michael Halliday (e.g. Halliday & Matthiessen, 2004), and though it was originally created for the purpose of analysing the semiotic resource of language, its application to other semiotic resources has proven productive (Lim, 2004, p. 220). Djonov (2007, p. 150) points out that SFL's

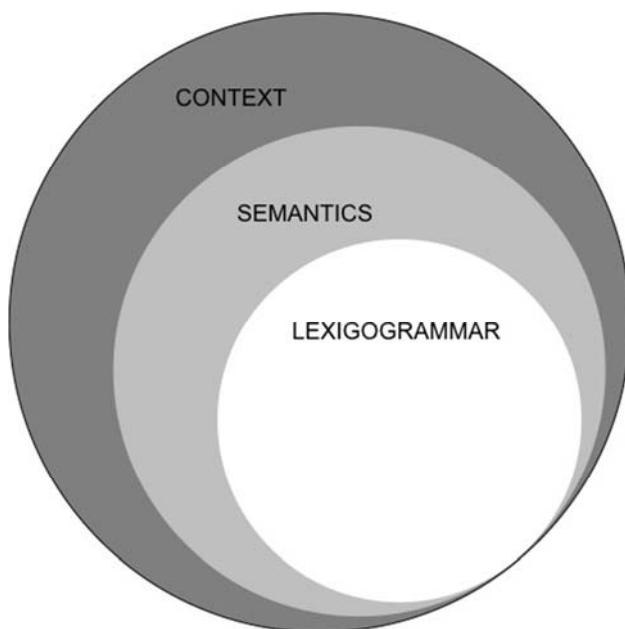


Figure 1: The stratification of written language. Adapted from Halliday & Matthiessen (2004, p. 25)

applicability rises from its focus on semiosis, which means the making and understanding of meaning. This is what the term 'functional' refers to in its title: the analysis of how grammar creates and expresses meaning. Furthermore, it is systemic because it sees grammar in the form of system networks instead of plain structures (Halliday & Matthiessen, 2004, p. 23). Meaning, therefore, is inbuilt in systemic patterns of choice (Halliday & Matthiessen, 2004, p. 23) and choices are realised as structure. The focus on meaning and meaning-

making is what enables SFL's principles to be extended from studying language to the study of, for example, images (Kress & van Leeuwen, 2006; O'Toole, 1994).

Another aspect of SFL, which makes it easily applicable to semiotic resources other than language is the idea that language forms and is formed by the socio-cultural context in which it occurs (Djonov, 2007, p. 150). Halliday and Matthiesen (2004) point out that one of the purposes of language is to make sense of our experiences, and that way it comes into contact with the context in which it is used, the experiences that go on outside language itself (p. 24). In order to express our experiences, Halliday & Matthiesen propose two levels, or strata: firstly the experience is transformed into meaning, and secondly the meaning is put into words. The former level is referred to as the stratum of semantics, whereas the latter is the stratum of lexicogrammar. These strata are represented in Figure 1, which is adapted from Halliday and Matthiesen's stratification of language (2004, p. 25).

The interdependency that exists between language and its socio-cultural context is reflected by three metafunctions developed by Halliday (Halliday & Matthiessen, 2004, p. 29), which guide our linguistic choices: the ideational, the interpersonal and the textual. The ideational metafunction is used to reflect on our experiences of the world around us and to build logical relationships between the experiences (Halliday & Matthiessen, 2004, p. 29). The interpersonal metafunction enables the forming of a relationship between the author of the text as well as its reader through the communication of, for example, attitudes and feelings (Halliday & Matthiessen, 2004, p. 106). Finally, the textual metafunction fills the role of the enabler or facilitator of language. Its function is to construct the text that entails ideational and interpersonal meanings (Halliday & Matthiessen, 2004, p. 30). (Djonov, 2007, p. 150)

Halliday and Matthiessen (2004, p. 9) present a lexicogrammatical rank scale that represents the units for studying language. A clause consists of phrases, which in turn consist of words. Words, on the other hand, can be broken down into morphemes. This goes on so that each of the four ranks consists of one or more units of the rank that is next below them (Halliday & Matthiessen, 2004, p. 9).

As mentioned earlier, Halliday's systemic functional theory of linguistics is adaptable to semiotic resources beyond language. The next section will discuss the

adoption of these SFL concepts in visual communication through the works of Kress and van Leeuwen (2006) and O'Toole (1994).

2.2.2 Visual grammar

Like in SFL, the frameworks of visual analysis by Kress and van Leeuwen (2006) and O'Toole (1994) both recognise three metafunctions that are included in all acts of communication. Whereas Kress and van Leeuwen (2006) have opted to use the same terminology as Halliday, O'Toole (1994) edited them to better suit the analysis of paintings. He refers to the modal function as one that engages our attention and interest, similarly as the interpersonal function in SFL. The ideational metafunction in SFL is replaced by the representational function in the analysis of visual language. The aim of the function, however, remains the same: to convey information about the reality. Finally, the compositional function in visual language is used to structure the other two functions into a coherent message, like the textual function in SFL is used to construct and facilitate text. (O'Toole, 1994, p.5) In the present study the metafunctions will be referred to as the interpersonal, the representational and the compositional function, as this has become the most common terminology to be used in the study of visual communication.

The linguistic rank scale of clause, phrase, word and morpheme is replaced in O'Toole's (1994) visual language with the units of work, episode, figure and member. As with their SFL counterparts, each of the units of visual language consists of one or more components of the unit next below. Therefore works consist of episodes, which consist of figures, which in turn consist of members. The unit of work refers to the image as a whole. An episode is a part of the work, which acts as its own sequence in the image, for example by depicting a separate action or a separate theme from other actions or themes represented in the image. The unit of figure refers to the participants in the image. Finally, a member refers to a part of the figure, for example a body part.

Table 2: A map of visual grammar. Adapted from O'Toole (1994, p. 24)

	<i>INTERPERSONAL</i>	<i>REPRESENTATIONAL</i>	<i>COMPOSITIONAL</i>
WORK	Rhythm Modality Gaze Frame Light Perspective	Narrative themes Scenes Portrayals Interplay of episodes	Framing Positioning Proportion
EPIISODE	Relative prominence Interplay of modalities	Actions Actor – goal Focal/side sequence Interplay of actions	Relative position in work Alignment Interplay
FIGURE	Gaze Contrast Stance Characterization	Character Act/Stance/Gesture Clothing components	Relative position in episode
MEMBER	Stylization	Part of body/object Natural form	Cohesion

Table 2 presents the elements in O'Toole's (1994) framework for visual analysis according to the metafunctions and units of language discussed in this subsection. The elements of visual grammar, which are relevant to the present study, will be looked into in more detail in Section 2.5, which introduces the analytical framework used in the study.

2.2.3 Prior research on visual elements

The use of images has become a rule rather than an exception in today's business world. Research of images in general terms has, however, found conflicting evidence on the use of images on websites (Cyr et al., 2009, p. 543). On the one hand, images have been found to irritate the visitors of interactive websites by cluttering up the site, slowing it down, and disrupting its functionality (Riegelsberger, 2002; Riegelsberger et al., 2002). But on the other hand, however, research shows that images attract visitor's attention (Riegelsberger, 2002) and increase the credibility of the website content in the eyes of the visitor (Fogg et al., 2002).

A major advantage of the use of images compared to textual information is the difference in how visitors interpret the messages. Riegelsberger et al. (2002, p. 2) argue that when reading text consumers are more able to utilise critical thinking compared to looking at a visual message in an image. Investigating advertising the authors conclude that as a viewer's interpretation of an image is derived from his/her real-life experiences of similar situations, images are more able to stimulate affective responses than pure textual information. This has been utilised especially in advertising where images showing attractive people using the product are commonplace (p. 2). This effect has also been found to be true in online environments (Riegelsberger et al., 2003).

In terms of the interpersonal function, research has found that the use of unnatural or unexpected images may have undesired emotional effects on viewers (Cyr et al., 2009). This relates to the element of modality, which can be defined as the extent to which the image represents reality in the viewer's opinion (Kress & van Leeuwen, 2006, p. 155). Cyr et al. (2009) thus advise companies and web designers to avoid the use of unrealistic images.

To further the study of the interpersonal function, Meyers-Levy and Peracchio (1992; Peracchio & Meyers-Levy, 1994) examined the impact of image cropping and camera angle on image perception in advertising. Image cropping, referred to as frame in the map of visual grammar, determines elements of the image that are shown to the viewer and those that are hidden or merely implied. Peracchio and Meyers-Levy (1994) found that a visually cropped or incomplete figure generated a positive response in the viewers, as they felt the need to relieve the ambiguity and complete the image in their head. The positive response, the authors argue, is a result of the pleasure of resolving the incomplete image (p. 190). The processing of a visually cropped image requires, however, a relatively higher level of motivation from the viewer compared to an image that is presented to the viewer as a whole. Furthermore, as Peracchio and Meyers-Levy (1994, p. 910) point out, the positive response may be dependent on the viewer being able to resolve the cropped image successfully. The impact of an unsuccessful resolution has, as to the best knowledge of the author, not yet been researched.

In their study of camera angles in advertising, Meyers-Levy and Peracchio (1992) found that if the person or product was photographed from a low angle, which

showed the target as if the viewer was looking up at it, the advert received a more positive reaction than adverts portraying a high camera angle, where the viewer was looking down on the person or product portrayed. When a person or product was shown at eye level, the viewers' perceptions of it were between these two extremes (p. 454).

In terms of the compositional function, the website viewing patterns that visitors use have a significant impact in terms of the positioning of images on a web page. Shrestha and Owens (2008) found evidence in their eye-tracking study of people's website reading patterns of the F-shaped pattern commonly accepted by practitioners. The F-shaped pattern indicates that website visitors scan content on the top, in the middle and on the left-hand side of the page (Shrestha & Owens, 2008). This would imply that images positioned in those areas of a web page would gain the most attention and thus have the greatest potential of successfully communicating a visual message. There are, however, drawbacks to this assumption. Drèze and Hussherr (2003) found in their research on online advertising that consumers have learnt to avoid looking at banner adverts, which are positioned at the top of the page. This would suggest that placing an image, which a website visitor could mistake for an advert, above other content on top of the web page is not a successful strategy in terms of visual communication. Furthermore, as noted by Hopearuoho and Ventola (2009), the reading paths utilised by website visitors are of significance. With printed text the traditional reading pattern in Western countries goes from left to right, top to bottom (Hopearuoho & Ventola, 2009, p. 188). The authors, however, highlight that the reading path of a website is significantly different. Furthermore, as the reading pattern in non-Western countries differs already in terms of printed textual material, the website reading pattern may again be very different from that of the Western one. With a lack of academic research in this topic, this study will compare the positioning of images on the websites of multinational pharmaceutical companies to the F-shaped pattern suggested by Shrestha and Owens (2008) and discuss its potential implications in the field of online visual communication.

In terms of the representational function academic research has given the most attention to characters and their gender as well as roles in images. The presence of people in images on websites has been linked to higher levels of perceived social presence, which in turn is related to a higher degree of online trust (Cyr et al., 2009, p.

540; Cyr et al., 2007, p. 52; Hassanein & Head, 2007, p. 689). Investigating the portraying of female figures in online advertisements Plakoyiannaki et al. (2008) found that women are mainly portrayed in traditional or decorative roles, thus playing by the existing sexist stereotypes. The authors, however, note that the number of adverts portraying non-traditional and egalitarian women had still been increasing (p. 109). Shoop et al. (2008) also found evidence of the prevalence of sexist stereotypes in their study examining images of men and women in US and Japanese fashion magazines. The authors concluded that despite observed gender-related cultural differences between the two nations the magazines all showed a trend towards portraying men as serious and women as cheerful and breezy, thus lacking seriousness. Furthermore, Martin (2012) investigated the portraying of ageing characters in images targeted at elderly people finding that men were more often portrayed as active and independent, whereas women were shown as dependent, at risk and passive. The discussion on characters will be continued in Section 2.4 when the topic is related to source credibility effect and spokespersons commonly used in the field of marketing communications.

2.2.4 Global visual communication

Opportunities to globalise visual communication across various target markets has raised interest among practitioners and academics alike. Zahedi and Bansal (2011, p. 148) argue that the prominence of the internet as a channel for visual communication has ignited the creation of a global visual language. As visual material and meaning are shared globally over the internet, this would lead to the messages being universal and that anyone anywhere could decode them.

If visual communication was, in fact, something that is universal to people then how come the meaning of images often remains unclear? Kress and van Leeuwen (2006, pp. 4 & 35) emphasize that visual communication is always in a coded form. The reason why the message seems clear to the viewer is because s/he is already familiar with the meaning of the code. This indicates that the viewer has already been socialized into the cultural context in which the visual communication takes place. When we come face-to-face with images and visuals that originate from cultures that are foreign to us

we may be able to appreciate them as forms of art, but not as forms of communication. To do the latter we would need to become members of these cultures. (Kress & van Leeuwen, 2006, p. 4)

Research on advertising supports the latter viewpoint. For example An (2007, p. 303) found out that employing advertising visuals that reflect the communication styles of a particular national market is an effective way of communicating with consumers around the world. Multinational advertisers might, therefore, prefer to use differentiated ad visual strategies in web advertising for different markets (An, 2007, p. 303). The debate on differentiation and standardization of visual messages will be returned to in the discussion about culture in Section 2.3.

2.2.5 Visual communication in the pharmaceutical industry

Although several studies have been conducted to examine the direct-to-consumer communication and advertising of pharmaceutical companies on websites (e.g. Davis et al., 2007; Macias & Stavchansky Lewis, 2003-4), television (e.g. Frosch et al., 2007) and in print (e.g. Mehta & Purvis, 2003) the visual elements used in communication in the pharmaceutical industry have often been left uncovered.

Macias and Stavchansky Lewis (2003-4) found in their content analysis study of 90 direct-to-consumer drug websites that 89 % of the websites included at least one image, whereas 80 % of them included images of either people or animals in particular. The most common characters were women (81%), men (70%), children (38%) and doctors (29%). Macias and Stavchansky Lewis (2003-4) argue that the women, men and children used in the images represent consumers who would use the product advertised on the website. Furthermore, the authors argue that the companies aim to lend medical credibility through the use of doctors in the images on the websites. The implications of the use of consumers and experts in images will be discussed in more detail in Section 2.4, which introduces the source credibility effect.

Many studies have found evidence of the use of emotional appeals in online and print advertisements of pharmaceutical companies (e.g. Limbu et al., 2012; Frosch et al., 2007; Main et al., 2004). According to Liu and Pearson (2008, p. 141) the

most common positive emotional cues used in direct-to-consumer adverts are warmth, empowerment and assurance. The most common negative emotional appeal according to the authors is fear. Main et al. (2004) studied the functions of headlines and visuals in direct-to-consumer print advertisements of medicinal products of three product categories – prescription-based, over-the-counter and dietary supplements. The findings suggested that visuals were more commonly used to create positive emotional appeals such as warmth, happiness and humour, in the adverts of prescription-based drugs as well as dietary supplements compared to headlines. However, headlines were more often used to communicate rational or negative emotional appeals such as fear, guilt and shame in all of the three product categories.

The impact of source credibility and the use of spokespersons in pharmaceutical advertising has also recently been the focus of a small number of studies (e.g. Kim & Lee, 2012; Limbu et al., 2012; Kim, 2011). These will be discussed in more detail in Subsection 2.4.3, which covers the use of spokespersons and stereotyping within the pharmaceutical industry.

Despite limited research on visual communication in the pharmaceutical industry, its importance and relevance is commonly understood. For example Martin (2012) emphasizes the ways how visual images not only reflect but also reproduce social differences. This, according to the author, can influence consumers' bodily conduct and their perceptions of health risks in everyday life.

2.3 Websites as communication channels

This section discusses the internet and websites in particular as channels for corporate communication. The importance of these channels is first discussed in general before relating them to visual communication and the global pharmaceutical context of the study.

Internet users tend to visit web pages in search for relevant information (Yoshida et al., 2006, p. 201). As a result, websites have become an important channel for communication for companies (Song & Zahedi, 2005, p. 1219; Maynard & Tian, 2004, p. 285) or even one of the main channels (Chun & Davies, 2001, p. 315). In 2012,

the amount of people who use the Internet at least once a month reached 2.4 billion (Miglani, 2012). This equates to approximately 34 % of the actual population worldwide. Forrester, a global research and advisory firm, estimates that by 2017 nearly half of the world population will be using the internet regularly. These figures highlight the commonly accepted importance of the internet for global businesses.

Corporate websites serve various functions for communication providing benefits to both companies and consumers. Through Web technologies, companies can reach out to target audiences (Halliburton & Ziegfeld, 2009, p. 910; Tung et al., 2009, p. 97), communicate about their brand and corporate identity (Halliburton & Ziegfeld, 2009, p. 910; Kim et al., 2003, p. 17), provide detailed information of their products, services and processes to various stakeholder groups (Schaupp, 2010, p. 43; Tung et al., 2009, p. 97; Maynard & Tian, 2004, p. 285; Kim et al., 2003, p. 17; Chun & Davies, 2001, p. 330), interact with target audiences (Schaupp, 2010, p. 43; Tung et al., 2009, p. 97; Kim et al., 2003, p. 17) as well as conduct e-commerce (Schaupp, 2010, p. 43; Tung et al., 2009, p. 97; Maynard & Tian, 2004, p. 285). Furthermore, Maynard & Tian (2004, p. 286) point out that corporate web sites have been identified as suitable channels for corporate reputation building.

The use of websites for communication has been proven to have several benefits. On top of the benefit of reaching vast numbers of potential customers anytime and anywhere, websites allow companies, for example, to control the flow of information (Maynard & Tian, 2004, p. 285; Sullivan, 1999, p. 197), to reduce the costs of communication (Sullivan, 1999, p. 199) as well as improve their image and performance (Kim et al., 2003, p. 17; Chun & Davies, 2001, p. 316; Sullivan, 1999, p. 207). The above benefits highlight the importance for companies to establish a presence on the Internet as well as to present themselves online in an appropriate way (Maynard & Tian, 2004, p. 285; Kim et al., 2003, p. 17).

Schaupp (2010) points out that not only has the Internet had a significant effect on the way businesses operate and the way consumers access information but it has redefined the public's expectations on the accessibility of information. Whereas previously it was a norm that consumers had to wait on hold or in a queue to get hold of a piece of information, in today's world consumers expect to find the required information in a matter of seconds online. Schaupp (2010) suggests that this change in

consumer attitudes is not specific to a particular culture, market or group but one that is global breaking all these traditional borders. (Schaupp, 2010, p. 43)

Halliburton and Ziegfeld (2009, p. 910) note that in addition to the vast opportunities and benefits provided by the Internet it also possesses a significant challenge for companies. This challenge, according to the authors, stems from the worldwide access provided by the Internet and the need to globalise or localise websites accordingly. This challenge will be discussed in more detail in Subsection 2.3.1, which discusses websites as a channel of global communication.

2.3.1 Websites in global communication

As mentioned in the previous Subsection, the current global online population is approximately 2.4 billion, and it has been estimated to increase up to 3.5 billion by 2017 (Miglani, 2012). As a global medium, the Internet is accessible to people worldwide independent of their residence and time zone (Singh et al., 2005b, p. 129). The Internet therefore presents companies with a possibility to expand globally quickly even regardless of the company's size, origin or financial power (Halliburton & Ziegfeld, 2009, p. 911).

The use of websites in global communication calls for an evaluation of the meaningfulness of communicating to a global audience at the same time with the same message. Halliburton & Ziegfeld (2009, p. 910) highlight this as a major challenge of the Internet as a medium for communication and call for a consideration of the extent to which website content should be adapted to different target audiences. This has been actively debated in the field of academic research. The proponents of adaptation of website content argue that different preferences and legislature in terms of culture, language, graphics, design, consumer protection and operations between markets require the adaptation of websites to their particular contexts (e.g. Tixier, 2005; Simeon, 2001; Barber and Badre, 1998). Furthermore, research shows that the Internet is not a culturally neutral medium (Shneor, 2012; Singh et al., 2003) and that culture, in turn, has an impact on the format, layout, and design of e-commerce websites (Lo and Gong, 2005; Cyr and Trevor-Smith, 2004; Cyr et al., 2005; Simon, 2001), as well as content

depictions (Singh et al., 2005a, Okazaki, 2004; Singh et al., 2005b; Singh et al., 2003; Singh and Baack, 2004; Singer et al., 2008).

Despite the vast amount of support for adapting website content, a group of academics and practitioners recognise the potential of the Internet as a channel for standardization. The greatest benefit of this approach for companies is the lower cost of designing a website which communicates harmoniously in a global tone, compared to creating websites for each target market (Shneor, 2012, p. 352; Tixier, 2005, p. 29). Furthermore, Maynard and Tian (2004) question the impact of culture in the need for adaptation of website content. The authors argue (p. 286) that the Internet overshadows the more traditional media with its capacity to bring different cultures together. This creates a potential for cultural homogenization (Maynard & Tian, 2004, p. 287), which could lead to the creation of a global standard of online communication.

These two logics of communicating to audiences in markets around the world are identified in academic research as the localisation strategy and the globalisation strategy (e.g. Cyr et al., 2009; An, 2007; Tixier, 2005). Furthermore, a third approach, which draws elements from both of the aforementioned logics, is introduced in the literature, namely glocalisation (e.g. Okazaki & Skapa, 2008). These will be looked into more deeply in the following subsection.

2.3.2 Localisation, globalisation and glocalisation of communication on websites

As the previous subsection outlined, there are two strategies for companies to adopt for communicating to audiences in different cultures and markets: localisation and globalisation. Localisation, also referred to as adaptation and differentiation in academic literature, is a process through which a product or a service is adapted to local language, culture, design preferences and administrative specificities (Shneor, 2012, p. 354; Tixier, 2005, p. 16; Cyr & Trevor-Smith, 2004, p. 1199; Barber and Badre, 2001). Cyr and Trevor-Smith (2004, p. 1199) argue that idiomatic language translation is not sufficient when localising a product or a service but such details as time zones, currency, brand names and geographic examples must also be considered. Furthermore, a number of design features may be localised on websites, such as colours, icons,

animations and images (Cyr et al., 2009, p. 557). Cyr and Trevor-Smith (2004, p. 1199) conclude that a successfully localised product or a service is such that it appears to have been developed within the particular target market and culture.

A company that does not adapt its products and services to preferences and specificities of target markets opts for the globalisation strategy (Tixier, 2005, p. 43). The Internet has been identified as an ideal medium for globalisation (Maynard & Tian, 2004, p. 287) with its capacity to expand across territorial borders and its capability to bring different cultures together (Maynard & Tian, 2004, pp. 286, 287). These interconnections between societies and cultures could potentially lead to global standards in communication. Prior research has, however, so far supported the use of localisation and adaptation, as will be discussed next. It should, however, be noted that the Internet influences the globalisation potential of different industries at different rates (Yip, 2000, p. 1), and one should therefore take care when drawing universal conclusions.

Singh et al. (2005, p. 73) discuss previous research done to investigate the need to localize versus standardize website content in global markets, and conclude that it has been unanimously for the localization of content. Zahedi and Bansal (2011) found that making a website culturally congruent could improve its usability and as a result increase customer satisfaction, trust and loyalty. According to Luna et al. (2002) adapting websites to local cultures reduces the cognitive efforts to process website content from the visitors, which results in easier navigation and creates favourable attitudes towards the website. Cultural localisation also has the potential for users to remain longer at the website (Cyr et al., 2009, p. 557).

According to An (2007) many global companies opt for a compromise between the localisation and globalisation strategies, the so-called 'glocalisation' approach. Glocalisation refers to combining elements of globalisation with the constraints of the local environment to fulfil the requirements by the target audience (Tixier, 2005, p. 16). Okazaki and Skapa (2008, p. 1225) adopt glocalisation strategy and argue that instead of being merely a medium for globalisation as suggested by Maynard and Tian (2004, p. 287), the Internet is, in fact, a glocal medium allowing companies to create localised content with global access. Perhaps a more accurate definition for the term is provided by Blackett and Harrison (2001), who refer to

glocalisation as “globalisation that recognises and embraces local subtleties” (p. 49). This is, for example, evident in the development and maintenance of localised websites within global corporate websites to allow companies to communicate with local consumers (An, 2007, p. 304).

2.3.3 Visual communication on websites

Prior research within the field of e-commerce has shown that the inclusion of images of people on websites can achieve higher levels of perceived social presence and as a result a higher degree of online trust (Cyr et al., 2009, p. 540; Hassanein & Head, 2007, p. 704). In accordance with the studies supporting localisation of website content (e.g. Zahedi and Bansal, 2011; Singh et al., 2005; Luna et al., 2002) Cyr et al. (2009) found that adapting websites to the image preferences of users from different backgrounds also appears to be of importance, especially taking into account the continuous expansion of the Internet into new locations. Research suggests that the visual appeal of websites as well as of the separate elements on it, such as information, graphics and web tools, is a strong determinant of the visitors’ perception of the website and the satisfaction they experience for the visit (Lavie & Tractinsky, 2004, p. 269; Simeon, 2001, p. 420)

Zahedi and Bansal (2011, p. 148) argue that the Internet has globalised visual communication. The authors reason that as images of various types are used as communication tools across the Web, their role as effective modes of asynchronous mass communication has increased (Zahedi & Bansal, 2011, p. 148). There are, however, studies, which question the global nature of visuals. An (2007), who focused on global advertising, and Quiye, who examined communication through graphs, both maintain that there are cultural differences in terms of preferences for visual communication. Furthermore, Taylor et al. (2007) found that localised advertising campaigns on the Internet are more effective than standardised advertising campaigns. The findings of the study by An (2007), however, suggest that despite the localisation of visual messages proving successful in reaching consumers around the world, the perceived similarities between target markets allow global advertisers to group similar markets together and create standardised messages to these groups. This approach will,

according to An (2007), combine the high level of reach of a localised advertising message with the advantages of a standardised global approach, such as cost savings, consistency and enhanced brand identity building (An, 2007, p. 326).

2.3.4 Websites as communication channels in the pharmaceutical industry

The Internet is an indispensable source of health and medical information for consumers. Among various sources of health information, such as doctors, friends and family as well as mass media, the Internet has been identified in prior research as the most accessible and frequently used source. Furthermore, prior research shows that compared to other media, for example TV, radio and print, the Internet is rated the most important and satisfactory source of health information. Consumers, for example, feel that online health information improves their decision-making abilities and encourages them to talk with their doctor. It also improves their understanding of health conditions as well as makes them more comfortable about following their doctor's advice (Ybarra & Suman, 2006, p. 29). The growing demand for and consumption of online healthcare information has led to pharmaceutical companies establishing a prominent presence on the Internet. (Kim, 2011, pp. 57-58)

Blackett and Harrison (2001, p. 49) argue that the trend within the pharmaceutical industry is towards global brands and globally consistent communication. Relating back to the discussion on the two communication strategies this would then imply that a globalisation strategy was deemed appropriate to be used in global pharmaceutical communication. Blackett and Harrison (2001, p. 49), however, maintain that it is still important to recognise local sensitivities and subtleties in the foreign market, and take these into account in the communication. Based on prior research it could therefore be expected that differences would exist between the global and localised pharmaceutical websites in terms of their visual elements.

2.4 Source credibility effect

This section introduces the concept of source credibility, which is highly important for providing answers to research questions 2 and 3. The concept has not previously been researched within the field of visual communication, and as a result the section will first discuss it in terms of its heritage within marketing communication. The section will then link relevant research in source credibility effect to visual communication and to the pharmaceutical industry.

A key determinant of the success of communication messages is the credibility that the audience attributes to the source of the message (Fill, 2009, p. 507). Research indicates that source credibility is a factor of three dimensions: expertise, trustworthiness, and attractiveness (e.g. Ohanian, 1991; Clow et al., 2006). Furthermore, Fill (2009, p. 507) highlights the perceived personal motives of the source as a key component of credibility. Expertise refers to the level of which the source is perceived to possess better knowledge and experience of the advertised matter compared to the consumer. Trustworthiness is the extent to which the source can be regarded as objective and honest. Source credibility can be established by either the initiator of the marketing communication's message or by a specifically selected spokesperson (Fill, 2009, p. 507)

2.4.1 Spokespersons

Despite the use of spokespersons having been widely researched in the field of marketing communication (e.g. Limbu et al., 2012; Wang & Doong, 2010; Clow et al., 2006; Lafferty et al., 2002; Stafford et al., 2002; Agrawal & Kamakura, 1995; Ohanian, 1991) the topic has yet to be adopted into visual communication through images other than advertisements. Companies use spokespersons in order to increase the credibility of their communication activities (Fill, 2009). As with the case of organisation's delivering their own messages, consumers will weigh up the validity of the message and the perceived credibility of the spokesperson delivering the message to decide whether to accept the message or not (Fill, 2009, p. 508). There are six groups of spokespeople

commonly discussed in the literature: experts, celebrities, consumers, spokescharacters, company chief executive officers (CEOs) and company employees (Limbu et al. 2012, p. 25; Fill, 2009, p. 509; Stafford et al., 2002, p. 18; Friedman & Friedman, 1979, p. 63).

Expert spokespersons are individuals who have superior product knowledge compared to the target group that is gained through experience, study or training (Limbu et al., 2012 p. 25; Fill, 2009, p. 509; Friedman & Friedman, 1979, p. 63). In the context of medicinal products, expert spokespersons generally include doctors and pharmacists. According to prior research, expert spokespersons should be used in marketing communications if the advertised product could cause a financial or physical risk to the consumer or if the performance of the product needs verification (Friedman & Friedman, 1979, p. 71).

A celebrity spokesperson is a well-known public figure such as an actor, athlete or a musician, who has gained this status by achievements in an area that is unrelated to the product class of the advertised product (Friedman & Friedman, 1979, p. 63). Research has shown that in terms of brand recall the celebrity spokesperson seems to be the most effective type of spokespersons in marketing communications (Friedman & Friedman, 1979, p. 70). There are, however, risks involved with using a celebrity spokesperson as a brand advocate. Care needs to be taken into the selection of the celebrity spokesperson, as their traits need to match the brand and its current or desired traits (Tom et al., 1992, p. 48). With the other spokesperson groups, the company has more control over the spokesperson, as they are either fictional characters (human or animated) or employed by the company. Even though marketing communication using celebrity spokespersons has been shown to result in greater levels of ad recall, there is a risk that consumers receiving the message remember the celebrity but not the brand that is being advertised (Fill, 2009, p. 511). Furthermore, celebrities may be advocates of several brands at the same time (Tom et al., 1992, p. 48), which may create unwanted associations with other brands or make the validity of the company's message questionable.

A consumer spokesperson's effect in marketing communications is based on his/her similarity with the target consumer. The role is normally filled by an ordinary person, who has no special knowledge or expertise regarding the advertised product

other than what s/he has gained through normal use of the product (Friedman & Friedman, 1979, p. 63). Fill (2009, p. 511) states that similar lifestyles, interests and opinions between the consumer spokesperson and the target consumer make the latter more receptive of the message, make the message more credible, and increase the consumer's understanding of the message.

Animated characters are sometimes referred to as safe options to be appointed as brand spokespersons. This statement is based on the fact that they are fictional characters that can be fully controlled by the company, which is never entirely possible with human spokespersons (Stafford et al., 2002, p. 18). As such, the match between the brand and the animated spokescharacter can be optimized to a greater extent than that of the match between the brand and for example a celebrity spokesperson. Whereas a human spokesperson's public image may change for the worse and by doing so create negative associations for the brand, a spokescharacter's public persona can be influenced so that the spokescharacter portrays the exact qualities and attributes that the company wants consumers to associate with the brand (Stafford et al., 2002, p.17; Tom et al., 1992, p. 48).

In certain cases, the CEO of a company makes a good spokesperson for its products and brands. A CEO spokesperson can be effective when the public image of the CEO is positive and his/her character creates positive associations with and increases credibility of the brand (Fill, 2009, p. 511). Furthermore, the CEO is often perceived as knowledgeable about the brand, which draws from the expertise dimension of the source credibility effect (Stephens & Faranda, 1993). The CEO can therefore be placed between the expert and the celebrity, but the personal motives that a CEO has might be perceived as high. Most obvious examples of such CEOs include Sir Richard Branson for Virgin Group and the late Steve Jobs for Apple.

Employees are frequently used as spokespersons in marketing communication materials for service companies, as customer satisfaction is often directly related to the performance of an employee (Stephens & Faranda, 1993, p. 36). Stephens and Faranda (1993) differentiate between the use of front-office and back-office employees as spokespersons. Front-office employees refer to company personnel, who are directly in contact with the consumer, such as pharmacists, which makes them an evident choice for brand spokespersons (Stephens & Faranda, 1993, p. 37). Back-

office employees' work, on the other hand, does not involve regular customer interaction (Stephens & Faranda, 1993, p. 36). An example of such is a laboratory worker. Although back-office employees are not uncommon in marketing communication, Stephens and Faranda (1993, p. 38) note that they are less common than front-office workers.

2.4.2 Visual spokespersons

It is a known fact that the visual appearance of other people is a key component in guiding our attitudes and behaviour in social interaction. Visual appearance can be divided into dynamic visual aspects, which include gestures, facial expressions and gaze, as well as static visual aspects such as body shape, gender, clothes and hair. These attributes initiate a set of expectations in human beings regarding, for example, the personality, character, likely behaviour, attitudes and opinions of the other person independent of whether the attributes are witnessed face-to-face, on a paper or through a screen. (Haake & Gulz, 2008, p. 1-2)

This process of categorization by visual cues relies heavily upon stereotypes. A stereotype can be defined as a culturally shared socio-cognitive representation of a typical member of, for example, a human, a professional or a social group (Haake & Gulz, 2008, p. 2). A stereotype incorporates the beliefs that members of the culture share on a group of people. These are activated by visual cues and may include various non-visual attributes that are then projected onto the person: how the person is expected to behave or not to behave, what is s/he expected to say or not to say. Haake & Gulz (2008, p. 2) refer to this as “visual cues carrying social baggage”.

In the literature, there exists a distinction between a stereotype and a prototype, which requires further clarification in terms of the topic of this thesis. Whereas a prototype is used to represent a portrayal of a typical example of a concept based on the actual frequency of occurrences, a stereotype is seen as something that is constructed out of elements that actually do not exist by an outlet such as culture or media. As such stereotypes are said to bring along negative associations, while prototypes remain neutral. (Haake & Gulz, 2008, p. 3) As this study examines visual

spokespersons that may carry negative, neutral or positive associations meanings in them the term visual stereotype will be used. However, an important division needs to be made, as the thesis will use the term 'stereotype' as a carrier of associations on a continuum between negative and positive. As stereotypes themselves are culture-specific, so will the continuum of associations be as well.

2.4.3 Spokespersons and stereotyping in the pharmaceutical industry

This subsection focuses on the emotional aspect of using influential spokespersons. Limbu et al. (2012, p. 24) note that there is a trend in pharmaceutical advertising away from rationality and towards emotional messages. This has been criticised for persuading consumers and attempting to influence their healthcare decision-making instead of providing a fair balance of benefits and risk information about the medicinal product (Kim & Lee, 2012, p. 254).

The use of spokespersons has been widely researched within the pharmaceutical industry especially in terms of direct-to-consumer advertising. The research has, however, focused on just three of the groups of spokespersons: celebrities (e.g. Limbu et al., 2012; Polen et al., 2009), experts (e.g. Kim & Lee, 2012; Limbu et al., 2012) and consumers (e.g. Kim & Lee, 2012). The findings of these studies will next be briefly looked into.

Prior research suggests that the use of celebrity spokespersons in pharmaceutical advertising does not necessarily provide positive results. Polen et al. (2009, p. 50) found that 90 % of research respondents felt that the use of celebrity spokespersons in pharmaceutical advertising had a negative impact on trust in the advertised product. The same study showed that fewer than 10 % of respondents were encouraged by the celebrity spokesperson used to visit their doctor to inquire about a medicinal product they saw being advertised (Polen et al., 2009, p.49). Limbu et al. (2012) studied the use of celebrity and expert spokespersons in the advertising of prescription-based medicinal products within high- and low-involvement target audiences, high-involvement referring to consumers with a medical condition treatable by the advertised product and low-involvement to those who do not have such a

condition. The research findings showed that the use of a celebrity spokesperson helped in brand and ad recall for low-involvement consumers but was ineffective among the high-involvement consumers.

Comparing the celebrity and expert spokespersons, prior research has shown that consumers prefer the use of experts in adverts for over-the-counter products to celebrities (Limbu et al., 2012). This could suggest that expert spokespersons would also be preferred in the advertising of prescription-based pharmaceutical products due to the higher risk associated with the drugs compared to over-the-counter products (Limbu et al., 2012, p. 26). This was to some extent supported by the study by Limbu et al. (2012) as they found out that the use of expert spokespersons increased ad credibility. This effect was, however, stronger within the low-involvement consumer group than the high-involvement group. Limbu et al. (2012, p. 33) concluded that public policy makers should be alert that the use of spokespersons and other peripheral cues in advertising have a more persuasive effect on consumers, who do not actually need the advertised medication, compared to those who do.

Kim and Lee (2012) studied the impact that the presence of an expert or a consumer (referred to as a peer in the study) spokesperson, as well as no spokesperson at all, in advertisements had on the consumer response to the ad. The study showed that the use of a spokesperson, whether an expert or a consumer, had a more favourable impact on the attitudes of the respondents compared to no spokesperson being used in the advert at all (Kim & Lee, 2012, p. 255). The effectiveness of doctors as expert spokespersons for pharmaceutical companies is based on their specialised knowledge and product-relevant expertise that can exert significant persuasive influence on consumers. Kim and Lee (2012, p. 248) argue that this influence is especially powerful because the consumer integrates the expert's opinions to their own belief system, which is sustained for a longer period of time than the advertising campaign runs.

The use of typical consumers as spokespersons in pharmaceutical adverts is, according to Kim and Lee (2012, p. 248), based on their perceived similarity with the consumer that is exposed to the advert. The consumer spokesperson may be seen to evaluate the medicinal product from the same standing point as the consumer him/herself. The better the consumer can relate to the consumer spokesperson, the

greater the perceived relevance and acceptance of the ad message. (Kim & Lee, 2012, p. 248)

Comparing the expert and the consumer spokesperson Kim and Lee (2012, p. 254) found out that the expert spokesperson in the form of a doctor produced perceptions of drug efficacy that were significantly greater than those of the consumer spokesperson. The authors also found, however, that both types of spokespersons were seen as trustworthy by the consumers (p. 256), a trait which was not associated with the celebrity spokesperson in the study by Polen et al. (2009, p. 50).

Chapter 2 has so far introduced the economic context of the pharmaceutical industry, in which the case companies operate. Furthermore, systemic functional linguistics was discussed in order to understand the theoretical basis of visual communication, and as a result this study. Relevant research into the key concepts of the thesis, source credibility effect and websites as communication channels, were then discussed both on a general level and in the context of international businesses. This key literature leads to the development of the analytical framework for the study, which will next be described in Section 2.5.

2.5 Analytical framework

The analytical framework combines elements from the frameworks by Kress and van Leeuwen (2006) and O'Toole (1994), both of which are based on the field of functional semiotics. The images will be considered through the three functions of analysis introduced in Section 2.2.2: interpersonal, representational and compositional. These directly relate to Halliday's (Halliday & Matthiesen, 2004) interpersonal, ideational and textual metafunctions used to analyse texts in the field of systemic functional linguistics.

O'Toole (1994) introduced the rank scale for analysing paintings, which includes work, episode, figure and member. As the main focus of this study is on spokespersons and the human roles portrayed in the images, the rank of member will

not be included in the analysis for two reasons. Firstly, it is deemed challenging to categorize a spokesperson just by a part of their body. Secondly, as a result of the first reason, by excluding the rank of member from the analysis the trustworthiness of the study will be retained at a high level, as the results of the study remain to a higher extent replicable. Furthermore, the rank of episode was also excluded from the analysis as the study will focus on images with only one actor, as will be explained in more detail in Section 3.2.

2.5.1 Interpersonal function

The interpersonal function considers the tools and devices that are used in the image to engage the viewer's attention as well as evoke thoughts and emotions (O'Toole, 1994). At the rank of work the interpersonal function analyses the modality, setting, social distance and appraisal used in the image.

Modality is a term adopted from linguistics into visual communication and it means the extent to which the viewer considers the image to portray reality and truth (Kress & van Leeuwen, 2006, p. 155). O'Toole (1994, p. 9) refers to this as slant and defines it as the uncertainty or ambiguity that a painter includes in a painting. For the study, colour has been chosen as the signifier of modality. Kress and van Leeuwen (2006, p. 160) talk about three scales of colour, which are used to define modality in an image. Colour saturation refers to the scale running from a full colour to a black and white image. Colour differentiation is a scale where the other extreme is maximally diversified range of colour, whereas the other being monochrome colours. Finally, colour modulation refers to the extent to which the colours are modulated, where fully modulated means an image that uses many different shades of red, and unmodulated means an image with realistic colours. The element of modality will be coded in the present study into either high or low, high referring to realistic colours whereas low being images with any modified colours.

In addition the interpersonal function includes information about the characters, their actions, as well as the image setting. At the rank of work, the study includes an analysis of the setting portrayed in the image as well as the social distance.

This will be coded in terms of a two-by-two matrix: the images are either formal or informal and either pharmaceutical or non-pharmaceutical by their setting.

The social distance refers to the distance of intimacy in the images and will be coded according to Edward Hall's dimensions of distance suggested by Kress & van Leeuwen (2006, p. 125). This includes six levels of distance. Images with intimate distance only show a person's face or head. A close personal distance includes a person's head and shoulders. At far personal distance the person is visible from the waist up. A close social distance shows the whole figure, where as a far social distance shows the figure and some of its surroundings. Finally, at public distance the torso of at least four people are visible in the image. (Kress & van Leeuwen, 2006, p. 125)

Furthermore, at the rank of work appraisal theory (Martin & White, 2005) will be used to evaluate the feel of the images. The appraisal theory is a framework for mapping feelings, which involves three semantic regions that cover the concepts that are traditionally known as emotion, ethics and aesthetics (Martin & White, 2005, p. 42). The appraisal theory is often used to analyse written communication but its application into visual resources has been limited, even though there appears to be no barriers to its adoption into the field of visual communication.

Emotion is referred to by the term 'affect', which is concerned with registering feelings, both positive and negative (White, 2008, p. 8). In written language this is often done through the use of verbs or adjectives of emotion, such as to love/to hate or happy/sad. In visual language the evaluation will be based on visual cues. Judgement refers to the evaluation of human behaviour in terms of a system of ethics or social norms. It therefore deals with admiration, critique, praise and condemnation within a cultural context. Appreciation focuses on the evaluation of objects, texts, artefacts and other materials other than human behaviour. The most obvious expression of appreciation is concerned with aesthetics of form and appearance. (White, 2008, p. 8-11)

In the present study, appraisal will be categorised under one of the three headings: affect, judgement or appreciation. Furthermore, the nature of the appraisal will be coded into either positive or negative emotional appeals. Main et al. (2004, p. 125) defines positive emotional appeals in advertising as a way of influencing the attitude and decision-making of consumers by evoking favourable affective responses.

Positive emotional appeals include, for example, warmth, joy, humour and nostalgia (Main et al., 2004, p. 124). Negative appeals use threatening or disturbing images to evoke, for example, fear, guilt, shame, regret, sadness or anger (Main et al., 2004, p. 126). These are used in order to evoke anxiety in consumers, which has been shown to have links to greater degree of attitude change and higher rates of compliance with a message compared to positive appeals.

The visual elements on the interpersonal metafunction at the rank of work and the coding used for them in the study are summarized in Image 1.

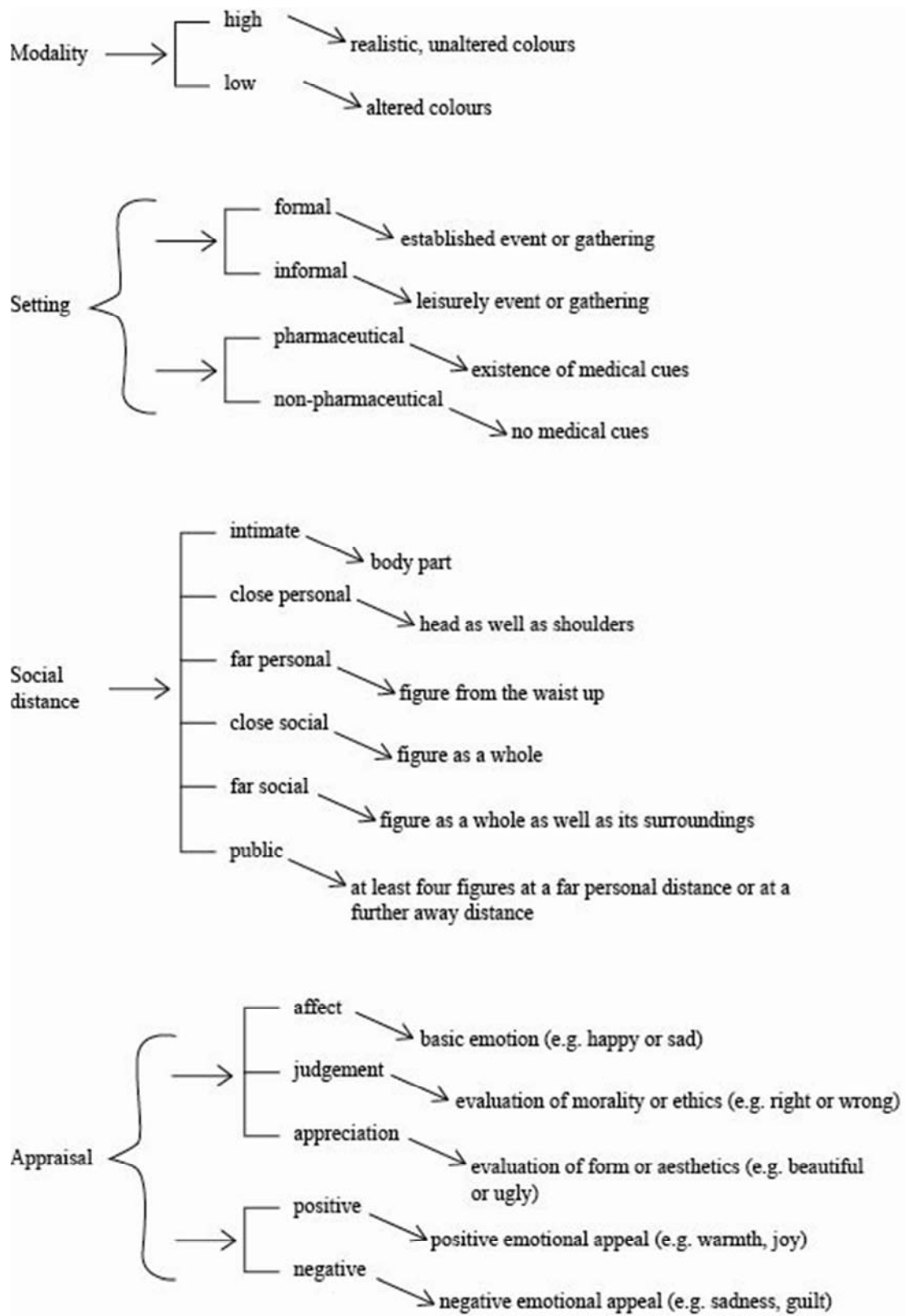


Image 1: Coding on the interpersonal metafunction at the rank of work

The interpersonal characteristics chosen for the analysis of figures include the gaze of the figures, focal point of the images, and the potential highlighting of figures. The gaze will be categorized into three categories: towards the camera, towards another figure or into the distance. Referring back to Section 2.2.2 and the discussion on visual grammar these three have been derived from Kress and van Leeuwen's (2006) division between images that demand and those that offer. With a direct gaze towards the camera the figure demands something from the viewer, such as attention or interaction. On the other hand the figure can offer interaction or information to the viewer by looking away from the camera towards the other figures or into the distance without addressing the viewer directly with their gaze.

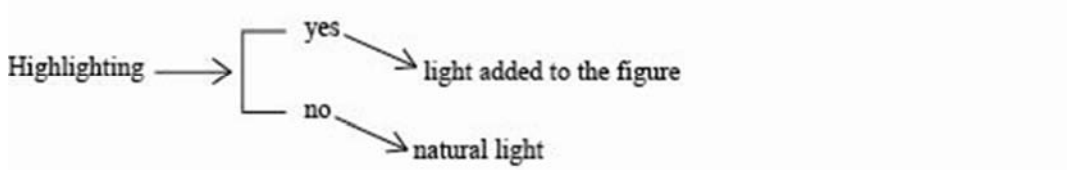
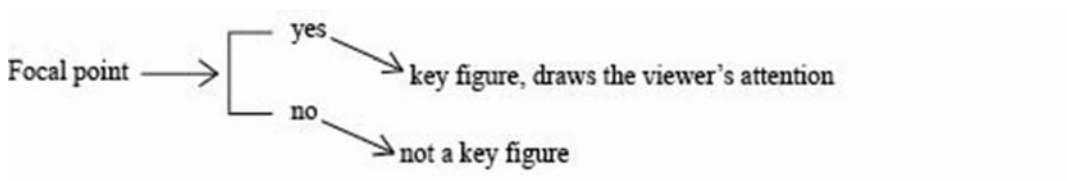
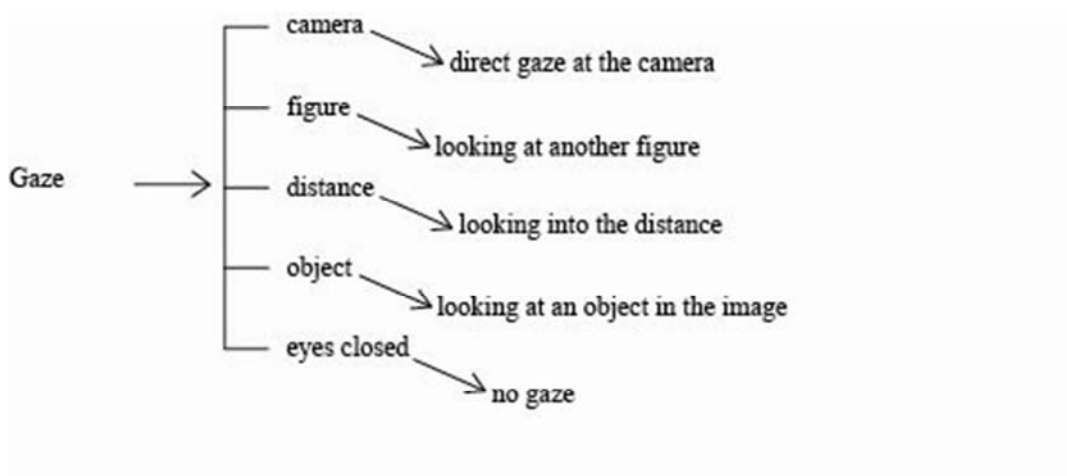


Image 2: Coding on the interpersonal metafunction at the rank of figure

The other elements of the interpersonal function adopted into the study will focus on whether or not the figures are raised above the rest in the images. The analysis here concentrates on focal points and highlighting. A focal point in an image is the element depicted that the eyes of the viewer are drawn to. It is what raises the viewer's interest in the image and makes the viewer focus his/her attention in the image. Highlighting investigates whether colour saturation or light are used to highlight some of the figures.

2.5.2 Representational function

The representational function conveys information about the reality created in the image (O'Toole, 1994). The representational function at the rank of work consists of the analysis of the image in terms of its communicative purpose. If the image aims to tell a story it is categorised as a narrative theme (O'Toole, 1994, p. 19). Depending on the units used in the image this can either be a story or a complex of interwoven or separate stories. In line with O'Toole's (1994) definition, Kress and van Leeuwen (2006, p. 59) establish the term 'narrative pattern' to represent images that depict ongoing or unfolding actions. For their purpose of storytelling, narrative themes are quite distinct from scenes and portrayals, the purpose of which is only to portray or represent. The difference lies in the fact that scenes portray objects and scenery, whereas portrayals depict persons or groups of people (O'Toole, 1994, p. 19).

At the rank of figure for the representational function the element of character used by O'Toole (1994) will be broken down into three components: gender, age and spokesperson. Gender will be coded in terms of female and male figures, whereas age will be coded into four categories: child, young adult, adult and elderly. Finally the spokespersons used in marketing communications introduced in Section 2.4 will be used as a basis for coding of the figures. This list of spokesperson groups will, however, not be seen as exhaustive and the emergence of potential new groups is not ruled out.

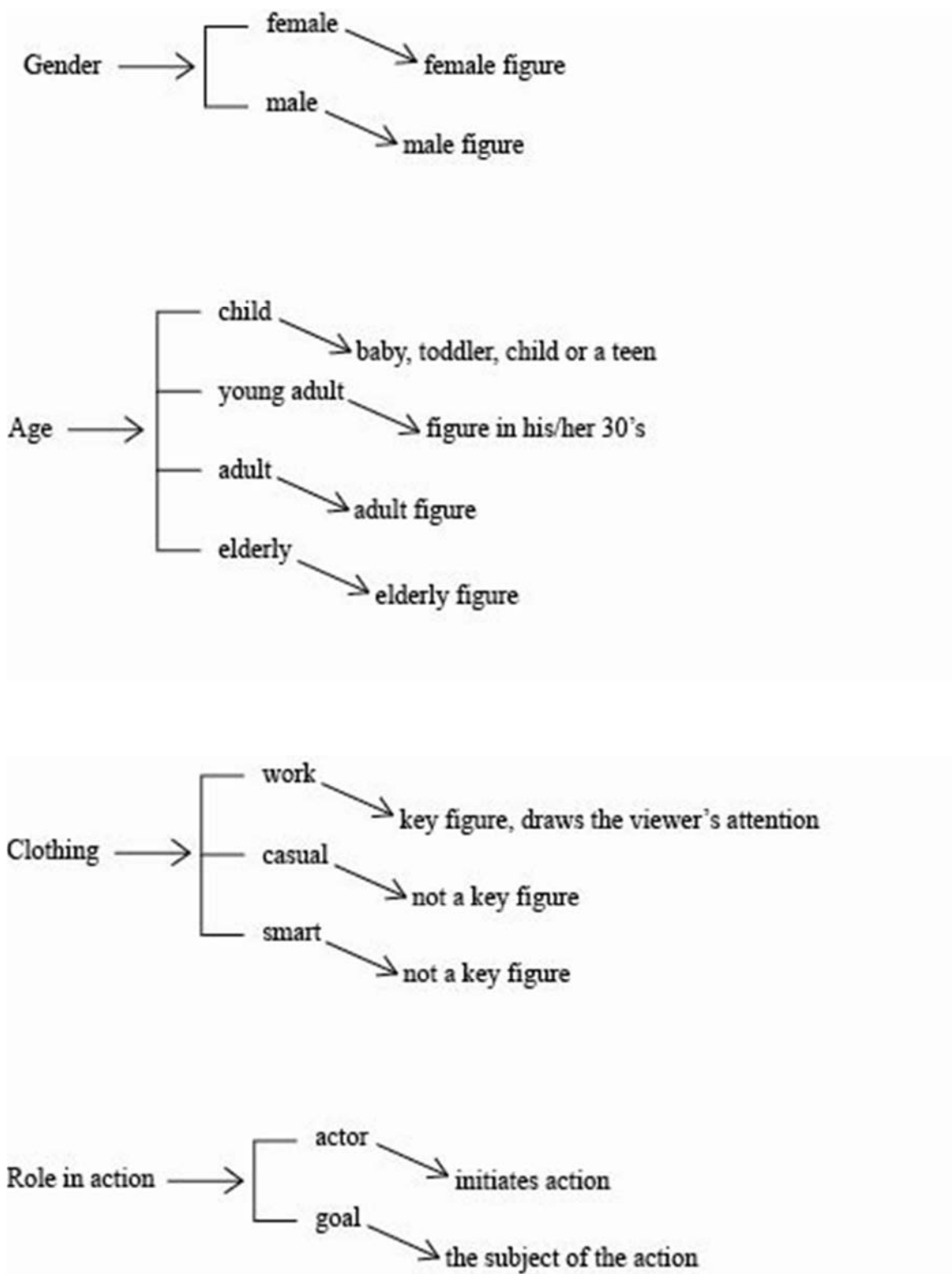


Image 3: Coding on the representational metafunction at the rank of figure

Furthermore, the figures will be analysed in terms of their clothing and their role in the action or event that is being depicted in the narrative theme. The clothing is important for the present study, as the categorisation of the figures into spokespersons will highly be based upon visual stereotypes, which often are represented through clothing. An expert spokesperson, for example, in this study could be a figure wearing a white doctor's coat and/or a stethoscope.

The role that the figures have in the action or event that is being depicted in the narrative theme will be coded in terms of Kress and van Leeuwen's (2006, p. 63) analysis of action processes. According to the researchers, an action process involves two main characters: an actor and a goal. An actor in an image is the figure, which initiates the action. A goal, on the other hand, is the figure that the action is directed to. (Kress & van Leeuwen, 2006, p. 63)

2.5.3 Compositional function

The compositional function focuses on the arrangements of forms in the image, the relation between the image elements, as well as the axes and the positioning of characters in the image. At the rank of work, this will be analysed in terms of the positioning of the image on the section of the website it is in. This will be coded as top, middle or bottom, where top refers to the top banner, middle to the images found in the middle of the page, often placed within text, and bottom to the bottom of the page. The placing of the images is significant because, as mentioned in Subsection 2.2.3 in the discussion on prior research on the compositional function in a visual context, website visitors tend to follow in line of particular reading paths (Hopearuoho & Ventola, 2009; Shrestha & Owens, 2008). Therefore, an image placed at the top of a page should receive more attention from the website visitors and thus have a higher rate of recall than an image placed on the bottom. Furthermore, a division between ideal and real is suggested in the literature (Hopearuoho & Ventola, 2009, p. 188; Kress & van Leeuwen, 2006, p. 186). This implies that the division of information on a web page

varies according to the different areas. Kress and van Leeuwen argue (2006, p. 187) that if images occupy mostly the top part of a web page with textual information below it, this implies that the idealised or generalised essence of the information is communicated visually whereas the text merely elaborates on it. However, if the text occupies the top of the page with images below it, this acts as evidence of pharmaceutical companies considering images as subservient to textual communication (Kress & van Leeuwen, 2006, p. 187). In addition to the placing of the images, the number of figures will also be included in the compositional function.

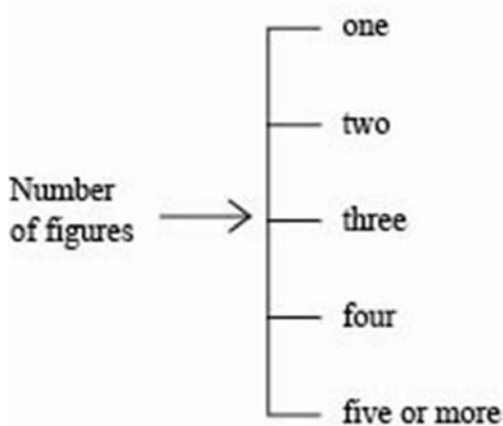
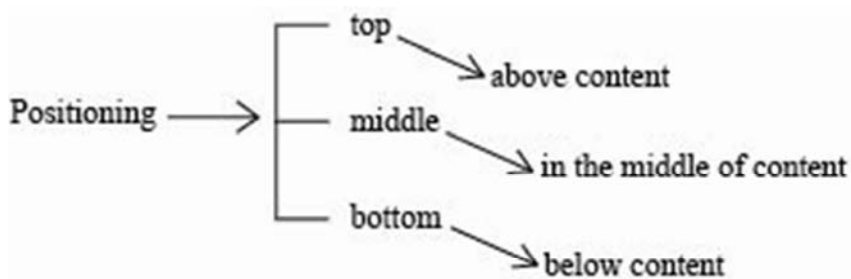


Image 4: Coding on the compositional metafunction at the rank of work

At the rank of figure the compositional function will be evaluated based on the figures' positioning within the image (left/centre/right) and their alignment in relation to the vertical and diagonal axes (straight/diagonally). The positioning within the image has been considered parallel by visual communication researchers to the linguistic system of theme and rheme (Hopearuoho & Ventola, 2009, p. 188; Kress & van Leeuwen, 2006, p. 181). This means that what is placed on the left-hand side of the image is presented as a given element, one that the viewer is already familiar with. This may not be the case in reality, but it is what the image composition suggests (Hopearuoho & Ventola, 2009, p. 188; Kress & van Leeuwen, 2006, p. 181). The element placed on the right-hand side of the image is then presented as something new to the viewer, something that was not known to him/her beforehand (Kress & van Leeuwen, 2006, p. 181).

The alignment of the figures to the vertical and diagonal axes contributes to the stability or energy within the image. Figures that are depicted as being straight in relation to the whole image, i.e. in alignment with the vertical axis, are said to bring stability and harmony into the image. Figures, which are diagonally in relation to the whole image and thus aligned with a diagonal axis, tend to create dynamism and energy. (O'Toole, 1994, p. 23)

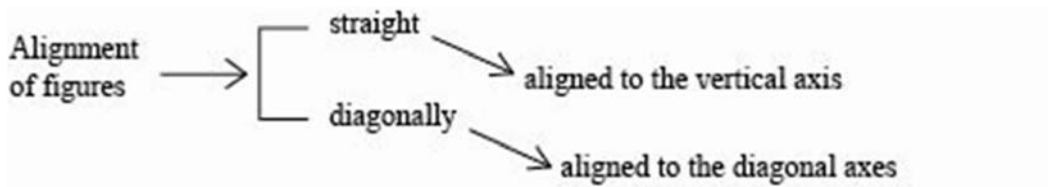
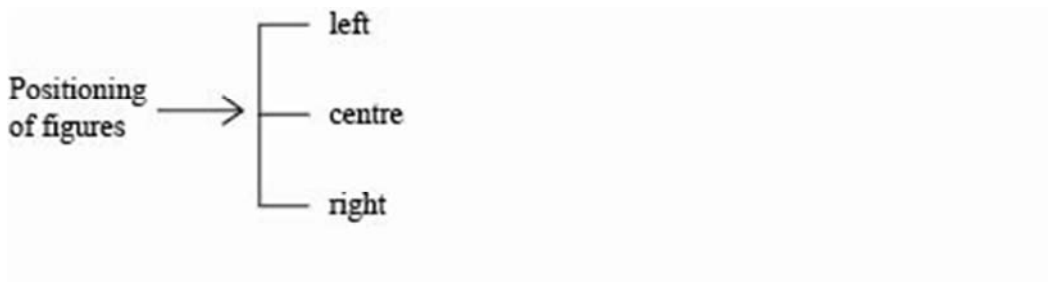


Image 5: Coding on the compositional metafunction at the rank of figure

This section described the analytical framework, which will be used to analyse the image material in order to answer the research questions outlined in Section 1.2. The framework utilises the frameworks for visual analysis by both Kress and van Leeuwen (2006) and O’Toole (1994). Furthermore, the appraisal theory will be adopted into the analysis of visual communication to determine the feelings and emotions embedded within the images. Table 3 summarizes the analytical framework in terms of the two ranks selected (work and figure) and the three functions of visual communication (interpersonal, representational and compositional).

Table 3: The analytical framework of the study

	<i>INTERPERSONAL</i>	<i>REPRESENTATIONAL</i>	<i>COMPOSITIONAL</i>
WORK	<ul style="list-style-type: none"> • Modality • Setting • Social distance • Appraisal 	<ul style="list-style-type: none"> • Narrative theme 	<ul style="list-style-type: none"> • Positioning • Number of figures
FIGURE	<ul style="list-style-type: none"> • Gaze • Focal point • Highlighting 	<ul style="list-style-type: none"> • Gender • Age • Spokesperson • Clothing • Role in the action 	<ul style="list-style-type: none"> • Positioning of figures (left/centre/ right) • Alignment of figures (straight/ diagonally)

In order to utilize the analytical framework shown in Table 3 and answer the research questions presented in Section 1.2, suitable research methods were examined. Next, Chapter 3 will present the combination of research methods chosen for the study as well as discusses the data collection process.

3. Data and methods

The following sections will discuss the methods that have been chosen to study the topic laid out in Chapters 1 and 2. Chapter 3 includes short introductions to the methods as well as justifications for their suitability for studying the particular topic. Finally, the collection of the data and trustworthiness of the study will be discussed.

3.1 Research methods

This study will utilize mixed methods research by combining qualitative and quantitative methods in a sequential manner. Semiotic analysis will be used to analyse the images and find cultural references in them. Furthermore, content analysis will be used to provide a quantitative means of comparing the websites.

Jogulu and Pansiri (2011) note that as management research is becoming more complex it requires new techniques for investigating research problems. In fact, Onwuegbuzie and Leech (2005) go as far as to argue that the existing division between quantitative or qualitative research methods is the biggest threat to the advancement of the social sciences, as the two are not used as a unified, holistic and interactive process. An increasing group of researchers use mixed methods approach in order to tackle these issues (Jogulu and Pansiri, 2011; Molina Azorín and Cameron, 2010). Mixed methods research can be defined as the use of a combination of quantitative and qualitative research methods within the same study (Molina Azorín and Cameron, 2010). The aim is not to replace quantitative or qualitative approaches, but to use the strengths and weaknesses of the two in order to create a method that is better adapted to examining some research problems (Truscott et al., 2010). The research methods will next be discussed in more detail.

3.1.1 Semiotic analysis

Semiotic analysis is “the study of the signs or systems of signs [and it] concerns the principles by which signification occurs. Signification refers both to the processes by which events, words, behaviours and objects carry meaning from the members of a given community, and to the content they convey” (Barley, 1983, p. 394). The aim of the semiotic analysis in this study is to examine the meaning that is conveyed in the images chosen from the pharmaceutical companies’ websites. The method fits the research in question because it allows for a structured and systematic analysis of the images based on the framework of analysing images by Kress and van Leeuwen (2006) and O’Toole’s (1994) framework for analysing paintings as well as other semiotic artefacts and architecture.

Central to semiotic analysis is the notion of the sign. Barthes (1967) defines a sign as the relationship between or the union of the outlet and the content of the sign. The outlet can for example be a word or a sound. Barley (1983, p. 399) argues that by this definition the semiotic theory presumes that anything can function as a sign. This highlights the role of the researcher in semiotic analysis. Barley (1983, p. 394) concludes that semiotics is ultimately the study of how communication is possible, as the same sign systems are presumed in all communication. The study would therefore benefit from the verification of the findings by one or more other researchers, as is discussed in Section 6.3 outlining the limitations of the study.

3.1.2 Content analysis

Content analysis is a systematic and quantitative method of describing the content of semiotic resources (Kenney, 2009, p. 228). Duriau et al. (2007, p. 5) note that it has been widely used for academic research purposes to study topics in business and management. It has also been a method of choice for many academics studying communication on websites through either textual or visual elements (e.g. Shneor, 2012; Singh et al., 2009; Singh et al., 2005; Maynard & Tian, 2004; Macias & Stavchansky Lewis, 2003-4).

Martin (2012) and Rose (2001), among other researchers, highlight the importance of visual images as not only reflections of social contexts but also as reproducers of them. As such, content analysis will provide a meaningful method of examining today's social contexts and realities depicted in the images. For the purpose of this study content analysis will be used to produce counts of frequency of visual elements outlined in the analytical framework in Section 2.5. The defining of the categories for coding is of utmost importance in content analyses, as the trustworthiness of the study increases if it could be repeated by another researcher with the same findings and results. For this reason the coding system was developed for the study with the slightest of details in mind. This was discussed in Section 2.5.

3.2 Data collection

For the study the three world's biggest pharmaceutical companies (Pfizer, Novartis and Sanofi respectively) were chosen from the Forbes Global 2000 listing of the world's biggest public companies in 2012. The companies represent the three largest pharmaceutical companies in the world according to Forbes' weighting of their sales, profits, assets and market value. In addition, Orion, the largest Finnish pharmaceutical company was added as the fourth case company.

The data was collected from the websites of the companies in January 2013. The images were collected by moving along the top navigation bar and the subpages listed on the left navigation bar. Any images that were behind links on the page that led away from the website were disregarded. Furthermore, as the focus of this study is on communication through pure images, adverts were excluded from the study. However, images that include a textual element other than a promotion were accepted into the study. The textual element was, however, not analysed as part of the image.

Three criteria were used when choosing the images for the analysis from the companies' websites:

1. The images needed to be in one of the following sections of the website: Homepage, About us, Research & Development, Products & Services or Sustainability.
2. Only images that include human characters were selected as one of the main characteristics to be analysed is the spokespersons portrayed in the images.
3. Only images that have a narrative theme were chosen.

In his framework for analysing paintings O'Toole (1994, p.19) establishes the term 'narrative theme'. By this term he distinguishes paintings that include a story or complex of stories from 'scenes', which do not depict any action such as landscape paintings or still-lives, and 'portrayals', which he defines as scenes that portray a person or a group of people. Accordingly, Kress and van Leeuwen (2006, p. 59) use the term 'narrative pattern' to distinguish images that present "unfolding actions and events, processes of change, transitory spatial arrangements". Image 6 provides example of a narrative theme, where a boy is handing over a piece of paper to a pharmacist. Only such images that have a narrative theme were chosen for the semiotic analysis so that the actions that the different spokespersons take in the images could be taken into account in the analysis.



Image 6: An example of a narrative theme
(<http://www.orion.fi/en/Products-and-Services/>)

The result of the analysis will be an understanding of the visual messages that the case companies communicate through the images on their website. The analysis will also reveal potential contextual differences arising from the cultural background of the companies.

3.3 Trustworthiness of the study

The trustworthiness of the study refers to the extent to which the study can be deemed to meet the expected quality standards of an academic research project. According to Kenney this is done in quantitative projects through analysing the reliability and validity of the research. In a qualitative research project the trustworthiness can be seen as a sum of three components: credibility, transferability and dependability. Furthermore, it is important to evaluate the potential for researcher's bias. As the present study utilised both quantitative and qualitative research methods, it will be evaluated based on all five characters suggested by Kenney as well as the potential for researcher's bias. (Kenney, 2009, p. 14)

The reliability of a research project refers to the consistency, stability, and dependability of the quantitative data gathering (Kenney, 2009, p. 14). To achieve reliability the images were all collected from the websites of the case companies on the same day. Furthermore, in addition to saving the images also print screens of the whole web pages were saved to maintain future reference to the positioning of the images even in an event where the websites were changed. Validity of a study means that the measures selected to analyse the phenomenon actually measure the elements intended (Kenney, 2009, p. 14). The validity of the present study was ensured by the use of a combination of two widely accepted frameworks for analysing visual communication, one by Kress and van Leeuwen (2006) and one by O'Toole (1994).

The credibility of a qualitative study refers to the accuracy and faithfulness of the researcher's descriptions of the gathered data (Kenney, 2009, p. 14). In the present study this was achieved through an extensive use of example images to further elaborate the coding behind visual elements. The coding sheets were also included into this document as appendices for future evaluation (please see appendices 1-3). Furthermore, the coding elements were thoroughly described with even the smallest of details, as is required by the method of content analysis, to show the reasoning behind the coding and allow for potential future replication of the study. These factors also add to the dependability of the study, which Kenney (2009, p. 14) defines as a clear path of reasoning behind a research study, which other researchers can follow and replicate if necessary with the same findings and conclusions. Finally, the transferability concerns the potential of the research findings to be adapted to a context

beyond that of the research project (Kenney, 2009, p. 14). Although care should be taken when considering the relevancy of any research findings in a context other than that of the study, as will be seen in Section 6.4, the present study gives an extensive list of recommendations for further study, which are relevant topics not only within the pharmaceutical industry but in other business contexts as well.

Despite the aforementioned steps to ensure the trustworthiness of the study, an element of bias is always present in qualitative analyses. As discussed, visual communication is dependent upon shared systems of signs (Haake & Gulx, 2008, p. 2; Barley, 1983, p. 399). The universality of the signs used in this research has not been studied, which suggests that there is potential for differences in the coding of these elements of researchers from different demographic, social and cultural backgrounds. The researcher has not, however, been influenced by any personal values or experiences, and has striven for as objective an analysis as is possible in a study by only one researcher.

4. Findings

This chapter presents the findings of the study. The first section will present the general findings in terms of images per company, website and website section as well as spokesperson groups. These four categories will then be used in the following section as background variables to discuss the findings of the study. These sections have been labelled according to the three metafunctions of visual communication: interpersonal, representational and compositional (Kress & van Leeuwen, 2006; O'Toole, 1994).

4.1 General findings

A total of 257 images qualified for the analysis from the websites of the four case companies, as are presented in Table 4. Whereas Orion, Pfizer and Sanofi had a similar number of narrative images that fulfilled the prerequisites of this study (51, 54 and 46 respectively), Novartis had double the amount of narrative images (106), which equalled to 41.2 % of the total number of images.

Table 4: Unique narrative images by case company

<i>Company</i>	<i>Frequency</i>
Novartis	106 41.2 %
Orion	51 19.8 %
Pfizer	54 21.0 %
Sanofi	46 17.9 %
Total	257 100.0 %

Pfizer was the only company not to have a separate global website and home country website. Being the only company in the analysis to originate from an English-speaking

nation, the reason behind this strategy may be related to meaning-making through the semiotic resource of language. It, however, implies either that the company considers visual messages globally understandable or that the company is currently using the images only for the purpose of appeal, not as tools for communication. As Pfizer.com acts as both the global and the home country website, it was considered in both categories also in the analysis for this study when investigating the findings by the three websites.

Table 5 presents the number of narrative images per website analysed for the study. Whereas the global and the home country websites had a similar share of the images (44.3 % and 42.9 % respectively), the number for the Chinese localised websites was significantly lower (12.8 %). The discrepancy in the total number of images for the websites compared to the actual number of narrative images analysed arises from the fact that some images were re-used on another website. On average an image was used 1.34 times throughout the 11 websites analysed. The duplicate images were included in the analysis of the findings by website but the analyses by company, section and spokesperson group only included unique images. This was done because it was impossible to tell which website the image originally belonged to. However, the inclusion of duplicate images would have compromised the relevancy of the findings by the other variables.

Table 5: Narrative images by website

<i>Website</i>	<i>Frequency</i>
<i>Global</i>	153 44.3 %
Home country	148 42.9 %
China	44 12.8 %
Total	345 100.0 %

As per Table 6, the most images with narrative themes were found on the Sustainability (34.2 %) and About us (29.2 %) -sections of the websites. The least images were found on the homepages (6.2 %) and the Products & Services -section (10.9 %). There are,

however, notable differences between the case companies, as can be seen in Table 7. On the Products & Services section, for example, Novartis has a share of 3.8 % of their images, where the same share for Sanofi equals 30.4 %. This implies that the importance of different topics for visual communication is not standard across the industry but depends on other variables.

Table 6: Unique narrative images by website section

<i>Section</i>	<i>Frequency</i>
Homepage	16 6.2 %
About us	75 29.2 %
Research & Development	50 19.5 %
Products & Services	28 10.9 %
Sustainability	88 34.2 %
Total	257 100.0 %

The division of narrative images between the three websites also included differences between the case companies, as can be seen in Table 6. Whereas Orion and Sanofi had the most images on their global website, Novartis had the majority of theirs on their Swiss localised website. Pfizer.com's share of 78.9 % of the images found across the Pfizer websites was taken into account in both the global and the home country category due to the lack of separate websites for the two categories. Another notable difference can be seen in the share of narrative images of the Chinese localised website for the case companies. Whereas the Chinese website has the smallest share of images for Novartis, Pfizer and Orion, the latter having only a share of 2.3 % of their images on the Chinese website, for Sanofi the Chinese localised website exceeded their French localised website in the number of images with a share of 32.6 %.

As noted earlier, the number of unique narrative images was exceeded by the numbers of images found in the various websites in total. The difference stems from the fact that some companies have used the same images again in one of the other websites. The average re-use rate for the images, as discussed earlier in this section, is 1.34. However, the differences for Sanofi, Novartis and Pfizer are not significant with images being used on average once, 1.04 and 1.06 times throughout the three websites

respectively. However, the rate for Orion equals 1.71 meaning that the majority of narrative images are used on two different websites for the company. All of these duplicate images are on the global website and the home country website, and none of the images on the Chinese website were used on the other two websites.

Table 7: Website and section by company

<i>Website</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Global	39 35.5%	47 54.0%	45 78.9%	22 47.8%	153 51.0%
Home country	56 50.9%	38 43.7%	45 78.9%	9 19.6%	148 49.3%
China	15 13.6%	2 2.3%	12 21.1%	15 32.6%	44 14.7%
Total	110 100.0%	87 100.0%	57 100.0%	46 100.0%	300 / 345 100.0%

<i>Section</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Homepage	5 4.7%	1 2.0%	7 13.0%	3 6.5%	16 6.2%
About us	33 31.1%	8 15.7%	25 46.3%	9 19.6%	75 29.2%
Research & Development	23 21.7%	17 33.3%	7 13.0%	3 6.5%	50 19.5%
Products & Services	4 3.8%	5 9.8%	5 9.3%	14 30.4%	28 10.9%
Sustainability	41 38.7%	20 39.2%	10 18.5%	17 37.0%	88 34.2%
Total	106 100.0%	51 100.0%	54 100.0%	46 100.0%	257 100.0%

Table 8 presents the number of narrative images on the various sections by website. Again, clear differences are visible. These suggest that different topics would be more important to be visually communicated to different audiences. The global website is the website of choice for the visual communication of research and development activities (25.5 %) with significant shares also on the About us- and Sustainability-sections (26.8 % and 36.6 % respectively). The latter two figures, however, fall short of the corresponding shares for the home country website (35.8 % and 40.5 % respectively). These suggest that the companies find it important to communicate about their heritage and corporate citizenship on the global and especially on the home country website. The About us –section has also the highest share of images on the Chinese localised website, however, an interesting difference compared to the other two websites is the

significantly higher share of images on the Products & Services –section on the Chinese websites. To better understand the reasons behind the discrepancies further research into the topic would be necessary.

Table 8: Section by website

<i>Section</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Homepage	5 3.3%	8 5.4%	6 13.6%	19 5.5%
About us	41 26.8%	53 35.8%	14 31.8%	108 31.3%
Research & Development	39 25.5%	18 12.2%	8 18.2%	65 18.8%
Products & Services	12 7.8%	9 6.1%	11 25.0%	32 9.3%
Sustainability	56 36.6%	60 40.5%	5 11.4%	121 35.1%
Total	153 100.0%	148 100.0%	44 100.0%	345 100.0%

The narrative images were coded into groups of human spokespersons. The basis for these was found in marketing communication research, which presented five commonly accepted groups of human spokespersons (e.g. Limbu et al., 2012; Fill, 2009; Stafford et al., 2002; Stephens & Faranda, 1993; Friedman & Friedman, 1979): consumer, CEO, employee, expert and celebrity. This list was not, however, considered as exhaustive but the potential emergence of new groups was examined. A total of 503 figures were identified in the images. This total excludes figures that were too small or unclear to be properly categorised and analysed for the purpose of this study. This was done to enhance the possibility of reiteration of the thesis findings, and thus to improve the validity of the study.

In terms of the spokesperson groups, the study found out that in a visual context a CEO spokesperson operates differently to one in a multimodal context, incorporating both visuals and language. In a visual context the CEO spokesperson relies on the celebrity-like status of the CEO, as without textual cues the viewer is reliant on his/her prior knowledge on the looks and characteristics of the CEO to be able to recognise him/her. As a result, no figures could be categorised into the CEO spokesperson group. A new group of visual spokespersons, however, emerged through the analysis, which was named business professionals. Figures marked as business

professionals were distinguishable by smart clothing as well as a non-pharmaceutical setting, and many of them depicted an on-going negotiation or a speech, as can be seen in Image 7 retrieved from Novartis China website on novartis.com.cn.



Image 7: Business professionals on the Novartis China website
(http://www.novartis.com.cn/nov/channel.shtml?channel_id=27)

The use of business professionals as visual spokespersons was in fact so prominent that the group was the second most popular among the case companies with a share of 20.7 % of the figures, yet still far behind the most popular group: consumers with a share of 53.3 %. No celebrities were presented in the images found on the websites.

Table 9: Spokespersons in narrative images

<i>Spokesperson</i>	<i>Frequency</i>
Consumer	268 53.3 %
Employee	93 18.5 %
Expert	38 7.6 %
Business professional	104 20.7 %
Total	503 100.0 %

This section has discussed the general findings of the study in terms of the shares of images found on the websites by company, website and section as well as spokesperson groups. The following sections will follow in line with the analytical framework discussed in Section 2.5 and presented in Table 3.

4.2 Findings on the interpersonal metafunction

The interpersonal metafunction was analysed in terms of modality, setting, social distance and appraisal at the rank of work, as well as by gaze, focal point and highlighting at the rank of figure. The following subsection will present the results for these elements by company, followed by the discussion of them by website as well as by website section. Finally, the elements will be reflected upon the figures used in the images through analysis in terms of spokespersons. The results for focal points will only be analysed in terms of the spokespersons for image technical reasons. All images include a focal point, which limits the usefulness of comparing the shares of focal points by company, website or section. Furthermore, as none of the figures in the analysed images were highlighted, the element will not be analysed through the background variables.

The modality of an image was defined as the extent to which the image portrays reality in the eyes of the viewer (Kress & van Leeuwen, 2006, p. 155). The study focused on the colours in images as the key determinant of the represented modality. The variable was coded either high, if no colour modification had taken place, or low, if some degree of modification was evident. This scale was deemed suitable for a preliminary study in the visual communication on the websites of multinational pharmaceutical companies. However, a continuum with a higher number of alternative options is recommendable for further studies, as this will add detail into the analysis.

The settings depicted in the narrative images were coded according to two scales: formal-informal and pharmaceutical-non-pharmaceutical. A setting was coded as formal in such cases where an established event was taking place (such as a visit to the doctor's or a speech) or the picture showed people at work. An informal setting was used as a reference for leisurely activities or a break from work. Settings that included a

reference to medicine or health-care were coded as pharmaceutical, whereas settings with no such reference were non-pharmaceutical. The results were analysed through cross-tabulation that resulted in four groups of settings: formal-pharmaceutical, informal-pharmaceutical, formal-non-pharmaceutical, and informal-non-pharmaceutical. The characteristics of each setting group will next be analysed in terms of example images.



Image 8: An example of a formal-pharmaceutical setting
(<http://www.orion.fi/Vastuullisuus/>)

Image 8 shows an example of a formal-pharmaceutical setting from Orion's home country website (www.orion.fi). The coding is based on both the objects and the depicted actions within the setting. In Image 8, the existence of chemical equipment indicates that the image portrays a laboratory, which is supported by the two figures wearing white coats and blue rubber gloves. The image portrays two related narratives as both figures are focused on their own action, which in this case can be categorised as work.



Image 9: An example of an informal-pharmaceutical setting
(http://en.sanofi.com/our_company/highlights/highlights.aspx)

Image 9 shows one of the few examples of an informal-pharmaceutical setting. According to the coding a formal setting shows an established event, such as a visit to the doctor's, or a figure at work. In Image 9, however, a figure can be seen taking medication by him/herself. The existence of the insulin pen makes the setting a pharmaceutical one. As the image presents an intimate distance, the surrounding objects provide us with no clues as to whether the

setting is formal or informal. However, the green shirt collar that is visible implies that the figure represents a consumer taking medication instead of a doctor giving medication to a figure, who is cropped out of the image apart from his/her four fingers.



Image 10: An example of a formal-non-pharmaceutical setting
(http://www.novartis.com.cn/nov/channel.shtml?channel_id=4)

In Image 10, three figures are shown at a close personal distance exposing a chart in the background and the corner of a laptop screen in the bottom-left corner of the image. These props imply that despite the lack of pharmaceutical work clothes the setting in the image is a formal one. This is further supported by the smart business clothing that can be coded on two of the figures. Taking into account the lack of evidence of a pharmaceutical setting the image is therefore coded as formal-non-pharmaceutical.



Image 11: An example of an informal-non-pharmaceutical setting
(<http://www.pfizer.com/products/#A>)

Image 11 shows an example of an informal-non-pharmaceutical setting. It is clear from both the surroundings and the clothing in the image that the setting is neither formal nor pharmaceutical. Furthermore, in the case of Image 11, the demographics of the figures also present an additional cue as the image features two children and an elderly gentleman.

The social distance refers to the distance of intimacy in the images. This was coded in the study according to Edward Hall's dimensions of distance suggested by

Kress & van Leeuwen (2006, p. 125). The intimate distance only shows a body part of the figure, such as the face. A close personal distance shows a figure's head and shoulders, whereas the far personal distance presents the figure from the waist up. A close social distance shows the whole figure but very little of his/her surroundings, whereas a far social distance includes some of the surroundings as well. At a public distance the torso of at least four people can be seen in the image. (Kress & van Leeuwen, 2006, p. 125)



Image 12: An example of a close social distance (<http://www.pfizer.com/about/>)

The appraisal theory was adopted into the study in order to analyse the feelings depicted in the images. The framework involves three semantic dimensions: affect, judgement and appreciation (White, 2008, pp. 8-11). Affect refers to emotions, such as happiness or sadness, judgement to evaluation of human behaviour, such as right or wrong, and appreciation to the evaluation of objects for their material characteristics. (White, 2008, pp. 8-11) The dimensions were further coded into either positive or negative based on the evaluation of the feeling.



Image 13: An example of a public distance in an image (<http://www.novartis.ch/citizenship/nachbarschaft-Basel.shtml>)

Table 13 shows the existence of the various dimensions in the images. Only 28.4 % of the original set of images were analysed according to the theory, as the other images

could not be reliably categorised under any of the three dimensions. As seen in Table 13, the most common category of feeling depicted in the images was that of affect (74.0 %), followed by appreciation (21.9 %). Only three images were seen to depict appreciation.

As can be seen in the total column in Table 10, the vast majority of images portraying feelings were evaluated as positive (95.9 %). All of the negative emotional appeals were categorised as affect. Next examples of each represented dimension of feeling will be discussed.



Image 14: An example of positive affect
(<http://www.novartis.com/products/animal-health.shtml>)

feeling will be discussed.

Most images that were coded into the category of positive affect contained images of healthy-looking people smiling. In 90.0 % of these images there were at least two figures in the image, which emphasized the feeling of friendship and belongingness. Image 14 is an example of positive affect

portraying the closeness of a girl and her dog.

The images of negative affect all showed signs of illnesses. The categorisation was based on the sad and worried expressions that the figures have on their face. Contrary to the images of positive affect, which portrayed feelings that the viewers can aspire to, the negative affect images act as reinforcement to what should be avoided. This is clearly demonstrated in Image 15.

The images showing judgement included admirable actions by depicted figures. Whereas the categorisation for affect relied on facial expressions, the coding for judgement was dependent on the act. This is a result of its definition as the evaluation of right or wrong. In



Image 15: An example of negative affect
(http://en.sanofi.com/responsibility/patient/atm/the_rap_fields/ntd/leishmaniasis/leishmaniasis.aspx)



Image 16: An example of positive judgement
 (<http://www.novartis.com/corporate-responsibility/responsible-business-practices/community-engagement/index.shtml>)

Image 16 judgement is portrayed as a volunteer feeds a person in need. Such a noble and unselfish act is perceived admirable, which leads to its categorisation as positive. It is worth noting, however, that the evaluation of feelings is culture dependant and therefore always represents the values of the evaluator.

Finally, three images were coded under the dimension of positive appreciation. The general definition of appreciation is the evaluation of

objects, texts, artefacts and other materials other than human behaviour. However, as White (2008, p. 11) notes there are cases, where human figures can also be “appreciated”. This takes place when the evaluation of the figure does not

concern the correctness or incorrectness of their actions, like in the dimension of judgement, but on the evaluation of, for example, their appearance. This was the case in all three images that were coded as appreciation in this study. (White, 2008, p. 11)

Image 17 presents an example, where the depicted figure can be appreciated for their beauty instead of their behaviour.

4.2.1 Findings on the interpersonal metafunction by company

Based on the analysis, the totals for high and low modality in the images were relatively close, as seen on Table 10, with high modality taking a 54.1 % share of the images and low modality 45.9 %. Yet again, there were differences between the case companies. Pfizer was the only company, who had more low than high modality



Image 17: An example of positive appreciation
 (<http://www.orion.fi/Tutkimus-ja-tuotekehitys/Vapaaehtoiseksi-laaketutkimukseen/Tutkimuksesta-maksettavat-korvaukset/>)

Table 10: Results on the interpersonal elements at the rank of work by company

<i>Modality</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
High	62 58.5%	32 62.7%	21 38.9%	24 52.2%	139 54.1%
Low	44 41.5%	19 37.3%	33 61.1%	22 47.8%	118 45.9%
Total	106 100.0%	51 100.0%	54 100.0%	46 100.0%	257 100.0%

<i>Setting</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Formal-pharmaceutical	26 24.5%	30 58.8%	18 33.3%	21 45.7%	95 37.0%
Informal-pharmaceutical	0 0.0%	4 7.8%	0 0.0%	2 4.3%	6 2.3%
Formal-non-pharmaceutical	33 31.1%	3 5.9%	12 22.2%	9 19.6%	57 22.2%
Informal-non-pharmaceutical	47 44.3%	14 27.5%	24 44.4%	14 30.4%	99 38.5%
Total	106 100.0%	51 100.0%	54 100.0%	46 100.0%	257 100.0%

<i>Social distance</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Intimate	13 12.3%	10 19.6%	8 14.8%	11 23.9%	42 16.3%
Close personal	21 19.8%	4 7.8%	6 11.1%	15 32.6%	46 17.9%
Far personal	26 24.5%	20 39.2%	22 40.7%	10 21.7%	78 30.4%
Close social	6 5.7%	4 7.8%	1 1.9%	1 2.2%	12 4.7%
Far social	4 3.8%	6 11.8%	3 5.6%	1 2.2%	14 5.4%
Public	36 34.0%	7 13.7%	14 25.9%	8 17.4%	65 25.3%
Total	106 100.0%	51 100.0%	54 100.0%	46 100.0%	257 100.0%

<i>Appraisal</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Affect-positive	28 75,7%	11 68,8%	8 61,5%	4 57,1%	51 69,9%
Affect-negative	0 0,0%	0 0,0%	0 0,0%	3 42,9%	3 4,1%
Judgement-positive	9 24,3%	2 12,5%	5 38,5%	0 0,0%	16 21,9%
Judgement-negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Appreciation-positive	0 0,0%	3 18,8%	0 0,0%	0 0,0%	3 4,1%
Judgement-negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Total	37 100,0%	16 100,0%	13 100,0%	7 100,0%	73 100,0%

images on their websites, with shares of 61.1 % and 38.9 % respectively. The different levels of regulation between the companies' home markets may explain some of this difference. As explained in Section 2.1.1, the US market is one of the few in the world where direct-to-consumer (DTC) advertising of prescription-based drugs is allowed. Even though the communication towards consumers is still regulated by the Food and Drug Administration (FDA) that states that the adverts cannot be misleading or highlight the drug's benefits at the expense of its risks, this difference in regulations still suggests a lower level of control compared to the tightly regulated EU and Swiss markets. The basis for this assumption is, however, challenged by the respective shares of high modality images of the Pfizer.com website and the Pfizer China website (42.2 % and 25.0 % respectively).

The analysis showed that an informal-non-pharmaceutical setting was the most common by a small margin before that of the formal-pharmaceutical. This implies that pharmaceutical companies do not limit their visual communications to the realms of their own operations, but beyond that to the lives of consumers in general. A significant notion in terms of the settings in images is the lack of informal-pharmaceutical images on the websites of the case companies. This group of settings gained just a 2.3 % share of all the narrative images.

Yet again, differences appear among the case companies in terms of the setting variable. Orion and Sanofi's narrative images depicted remarkably more formal-pharmaceutical settings compared to the other types of setting with shares of 58.8 % and 45.7 % respectively. Novartis and Pfizer, however, favour the use of informal-non-pharmaceutical settings with almost equal shares of 44.3 % and 44.4 % respectively. The most notable variation exists within formal-non-pharmaceutical settings that take up to 31.1 % of Novartis' images but only 5.9 % of those of Orion's.

Based on the research findings, the trend in social distances in the pharmaceutical industry seems to be towards the closer distances, where a figure is shown from the waist up or even closer than that, and the public distance with several figures depicted. Kress and van Leeuwen (2006, p. 125) explain that the social distance depends on the social relation that the company wants the viewer to have with the image figures, and is therefore an imaginary one that does not represent an actual level of familiarity between the viewer and the figure. Furthermore, the distance determines how

much is presented to the viewer and thus functions as a frame for the visual message (Kress & van Leeuwen, 2006, p. 125).

On the basis of the framework by Kress and van Leeuwen (2006), the case companies are mainly interested in building close bonds between the viewer and the figure in the images. The viewer is brought into the image as if s/he was an additional member in the action or a silent observer. S/he is given the opportunity to get acquainted with the figures. An example of an intimate setting can be seen in Image 9, whereas Image 10 presents an example of a close personal distance. A far personal distance is presented in Image 7 on page 64. This strategy can be seen as an attempt to increase the dimensions of trustworthiness and attractiveness of the source credibility framework, and accordingly make the viewer more receptive of the visual message. The close social and far social distances, which depict figures from a further distance, create a social relation between the figure and the viewer, which corresponds to that of two strangers that do not have the intention of becoming better acquainted with each other. An example of a close social distance can be seen in Image 12, whereas a far social distance is represented in Image 8.

In terms of the appraisal element, the positive affect was the most common option on the websites of all of the four companies. Positive judgement was also relatively commonly used but the most interesting differences came in the positive appreciation and negative affect elements. Orion was the only company to use positive appreciation in images. This was done by depicting a young beautiful girl in an informal setting. Perhaps the most significant difference was in the use of negative emotional appeals, which were all depicted by Sanofi. This was, however, somewhat diminished by the low share of negative appeals in the narrative images in total.

Table 11: Results on the interpersonal elements at the rank of figure by company

<i>Gaze</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Camera	1 0.5%	5 5.3%	1 1.1%	6 6.1%	13 2.7%
Figure	68 34.0%	42 44.2%	30 33.7%	32 32.7%	172 35.7%
Distance	73 36.5%	16 16.8%	17 19.1%	27 27.6%	133 27.6%
Object	57 28.5%	32 33.7%	39 43.8%	31 31.6%	159 33.0%
Eyes closed	1 0.5%	0 0.0%	2 2.2%	2 2.0%	5 1.0%
Total	200 100.0%	95 100.0%	89 100.0%	98 100.0%	482 100.0%

At the rank of figure the interpersonal function was analysed in terms of the gazes of the figures. The differences in terms of this element turned out to be smaller compared to many other elements analysed. Novartis favoured figures looking into the distance (36.5 %) just over figures looking at each other (34.0 %). Orion preferred figures looking at each other (44.2 %) over those looking at an inanimate object in the image (33.7 %), whereas Pfizer also favoured the two but the opposite way with almost the same shares (33.7 % looking at a figure and 43.8 % looking at an object). The gazes in Sanofi's images were divided relatively evenly according to figures, objects and the distance (32.7 %, 31.6 % and 27.6 % respectively).

4.2.2 Findings on the interpersonal metafunction by website

Table 12 shows the results in terms of the interpersonal function at the rank of work by website. Interestingly, high modality has the highest share of narrative images for the home country websites with the majority of images on the Chinese localised website being low modality. The global website is almost evenly divided between the two modalities.

In terms of the image setting, both global and home country websites show a tendency towards informal-non-pharmaceutical settings (41.2 % and 42.6 % respectively). The Chinese websites, however, strongly favour the formal-pharmaceutical setting (54.5 %). This could be an indication that due to an unfamiliar market place and culture, pharmaceutical companies opt for images on their Chinese

localised website, which are universally linked to healthcare and medicinal products. Further research would, however, be necessary to validate this assumption.

From the results it is evident that the companies use a larger range of social distances on their global and home country websites compared to their Chinese localised website. In fact, no narrative images featuring a close social or a far social distance were found on the Chinese websites. Whereas a far personal distance was preferred on the global and Chinese websites (35.3 % and 40.9 %), a third of all the images found on the home country websites depicted a public distance (33.8 %). This could support the assumption that the companies find it more important to communicate corporate citizenship on their home country websites compared to global or other localised websites, as the public distance can be used to communicate belongingness to a community.

As can be seen in Table 12, a wider range of appraisals was used in the global website compared to the localised websites. The most common appraisals for all three websites were in order of frequency positive affect and positive judgement. These were, in fact, the only appraisals used on the Chinese websites. The home country websites included a third appraisal in positive appreciation, whereas the global website utilised the aforementioned three with the addition of positive appreciation and negative affect. The use of appreciation in narrative images used to communicate to a global audience implies that the image content is believed to be universally considered as something that is ethical and admirable. As most of these images showed acts of kindness and unselfishness, it is possible that the visual message is interpreted the same way universally. This, however, would provide an interesting topic for future research.

Table 12: Results on the interpersonal elements at the rank of work by website

<i>Modality</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
High	76 49.7%	86 58.1%	20 45.5%	182 52.8%
Low	77 50.3%	62 41.9%	24 54.5%	163 47.2%
Total	153 100.0%	148 100.0%	44 100.0%	345 100.0%

<i>Setting</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Formal-pharmaceutical	61 39.9%	42 28.4%	24 54.5%	127 36.8%
Informal-pharmaceutical	3 2.0%	3 2.0%	2 4.5%	8 2.3%
Formal-non-pharmaceutical	26 17.0%	40 27.0%	7 15.9%	73 21.2%
Informal-non-pharmaceutical	63 41.2%	63 42.6%	11 25.0%	137 39.7%
Total	153 100.0%	148 100.0%	44 100.0%	345 100.0%

<i>Social distance</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Intimate	25 16.3%	20 13.5%	12 27.3%	57 16.5%
Close personal	26 17.0%	21 14.2%	8 18.2%	55 15.9%
Far personal	54 35.3%	36 24.3%	18 40.9%	108 31.3%
Close social	7 4.6%	9 6.1%	0 0.0%	16 4.6%
Far social	11 7.2%	12 8.1%	0 0.0%	23 6.7%
Public	30 19.6%	50 33.8%	6 13.6%	86 24.9%
Total	153 100.0%	148 100.0%	44 100.0%	345 100.0%

<i>Appraisal</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Affect-positive	30 61.2%	23 79.3%	12 85.7%	65 70.7%
Affect-negative	3 6.1%	0 0.0%	0 0.0%	3 3.3%
Judgement-positive	13 26.5%	5 17.2%	2 14.3%	20 21.7%
Judgement-negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Appreciation-positive	3 6.1%	1 3.4%	0 0.0%	4 4.3%
Appreciation-negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Total	49 100.0%	29 100.0%	14 100.0%	92 100.0%

Table 13: Results on the interpersonal elements at the rank of work by website

<i>Gaze</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Camera	11 3.7%	6 2.2%	1 1.4%	18 2.8%
Figure	99 33.1%	103 38.4%	24 33.8%	226 35.4%
Distance	74 24.7%	72 26.9%	18 25.4%	164 25.7%
Object	110 36.8%	85 31.7%	28 39.4%	223 35.0%
Eyes closed	5 1.7%	2 0.7%	0 0.0%	7 1.1%
Total	299 100.0%	268 100.0%	71 100.0%	638 100.0%

In terms of the gaze of the figures, as seen on Table 13, only minor differences could be found between the different websites. Whereas the home country websites favoured figures looking at each other, the global and Chinese localised websites included more figures looking at objects. These two gazes were, however, the two most popular ones on all three websites with looking into the distance as a clear third favourite gaze before the rest.

4.2.3 Findings on the interpersonal metafunction by section

The findings suggest that there is a link between modality of narrative images and the section where the image is placed. This link is represented in Table 14, which shows the modality of images by the sections analysed in the study. Most notably the Sustainability section has a share of 72.7 % of high modality images. As modality is derived from the perceived reality depicted in the image, it could be argued that it has a direct relationship on the credibility of a visual message. The strategy to use high modality images on a section, such as Sustainability, which often receives a high level of scrutiny, could therefore be advised. This would provide another fascinating topic for future research.

A further finding visible in Table 14 is the high proportion of low modality images in the About us -section. This can be partially attributed to subsections concerning the history of the companies. Whether it be a deliberate choice or a necessity, based on the availability of historical images, the majority of images used to



Image 18: An example of a low modality image
 (<http://www.orion.fi/Orion/Historia/1940--ja-1950-lukujenvaiheita/>)

visualise the history of the companies are black-and-white or they use otherwise distorted colours. It may be that those images originate from the time before colour film or that companies have chosen to use distorted colours as cues for a long history of operations. An example of a low modality image is provided in Image 18, whereas Image 13 is an example of a high modality image.

In terms of the image settings there appears to be a clear division between the sections. The formal-pharmaceutical setting was rationally favoured in the Research & Development – and Products & Services – sections with shares of 60.0 % and 57.1 % respectively. This is understandable as these sections are used to communicate about the operations of the companies, which more often than not are executed in formal pharmaceutical working environments. The informal-non-pharmaceutical setting was preferred in the Sustainability-section (46.6 %) as well as somewhat surprisingly in the About us –section (40.0 %). This setting is a logical choice for visual communication on sustainability as this often involves reflecting on the company’s operations and activities into the wider contexts of the local community and environment. However, the choice of this setting for the About us –section presents a slight mismatch, as the section is often used to communicate about the history, strategy and values of companies. A multimodal research study would be in place to study whether the mismatch is evident between the textual and visual information in this section. The aforementioned settings were equally popular on the homepages of the websites. However, another interesting result is the use of formal-non-pharmaceutical settings. Despite its lack of use in the other sections studied, it gained a relatively large share of the narrative images on the About us – and Sustainability-sections (28.0 % and 29.5 % respectively). This could be explained by different expected audiences for these sections, as they could be of particular interest to current and potential investors.

As seen in Table 14, the shorter social distances are utilised in particular on the Products & Services- and Research & Development -sections on the websites,

which generally are used to communicate about the operations and accomplishments of the company. By using a shorter social distance in these images the company presents itself as well as its work and products as approachable and easy to familiarize with. The homepages of the companies also favour the close personal and far personal distances, however the number of narrative images from this section is too low for any generalisations to be made based on it.

The public distance, however, seems to be used by the case companies as more of an invitation for the viewer. The image presents a narrative, in which the company is present either through a visual representation or through an implied reference, and it invites the viewer to join in. Perhaps for this reason public distances are the most used social distance on the About us- and Sustainability -sections of the websites. Both of these sections include narrative images that show the company's commitment to its surrounding community, an example of which can be seen in Image 13.

As seen in Table 14, the shares between the sections for appraisal are relatively similar. A clear exception is provided by the Research & Development – section with its relatively low share of positive affect images (52.9 %) and relatively high share of positive judgement images (35.3 %). In fact, the only two sections with images depicting other than positive affect or positive judgement were Research & Development and Sustainability.

Table 14: Results on the interpersonal elements at the rank of work by section

<i>Modality</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
High	7 43.8%	29 38.7%	26 52.0%	13 46.4%	64 72.7%	139 54.1%
Low	9 56.3%	46 61.3%	24 48.0%	15 53.6%	24 27.3%	118 45.9%
Total	16 100.0%	75 100.0%	50 100.0%	28 100.0%	88 100.0%	257 100.0%

<i>Setting</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Formal-pharmaceutical	6 37.5%	23 30.7%	30 60.0%	16 57.1%	20 22.7%	95 37.0%
Informal-pharmaceutical	1 6.3%	1 1.3%	1 2.0%	2 7.1%	1 1.1%	6 2.3%
Formal-non-pharmaceutical	3 18.8%	21 28.0%	6 12.0%	1 3.6%	26 29.5%	57 22.2%
Informal-non-pharmaceutical	6 37.5%	30 40.0%	13 26.0%	9 32.1%	41 46.6%	99 38.5%
Total	16 100.0%	75 100.0%	50 100.0%	28 100.0%	88 100.0%	257 100.0%

<i>Social distance</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Intimate	1 6.3%	9 12.0%	14 28.0%	13 46.4%	5 5.7%	42 16.3%
Close personal	4 25.0%	11 14.7%	14 28.0%	7 25.0%	10 11.4%	46 17.9%
Far personal	8 50.0%	22 29.3%	18 36.0%	6 21.4%	24 27.3%	78 30.4%
Close social	0 0.0%	4 5.3%	0 0.0%	1 3.6%	7 8.0%	12 4.7%
Far social	0 0.0%	5 6.7%	1 2.0%	0 0.0%	8 9.1%	14 5.4%
Public	3 18.8%	24 32.0%	3 6.0%	1 3.6%	34 38.6%	65 25.3%
Total	16 100.0%	75 100.0%	50 100.0%	28 100.0%	88 100.0%	257 100.0%

<i>Appraisal</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Affect-positive	6 75.0%	12 80.0%	9 52.9%	7 87.5%	17 68.0%	51 69.9%
Affect-negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%	3 12.0%	3 4.1%
Judgement-positive	2 25.0%	3 20.0%	6 35.3%	1 12.5%	4 16.0%	16 21.9%
Judgement-negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Appreciation-positive	0 0.0%	0 0.0%	2 11.8%	0 0.0%	1 4.0%	3 4.1%
Appreciation-negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Total	8 100.0%	15 100.0%	17 100.0%	8 100.0%	25 100.0%	73 100.0%

In terms of gaze, there were logical patterns to be observed in the research results. Both the Research & Development- and Products & Services –sections showed a strong preference for the use of figures looking at inanimate objects (49.3 % and 46.5 % respectively). A significant proportion of these showed people concentrating at their work either in a pharmaceutical setting or an office. The narrative images in the sections therefore act to communicate about the operations of the companies, even though a typical office setting would not necessarily be associated with a pharmaceutical company.

Whereas the Research & Development- and Products & Services –sections preferred the gaze at objects, the About us- and Sustainability-sections had the greatest share of figures looking at each other. This enhances the community spirit, which normally is communicated through these sections. On the homepage the gaze at an object and a figure had equal shares (34.5 % each).

Table 15: Results on the interpersonal elements at the rank of figure by section

<i>Gaze</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Camera	2 6,9%	2 1,7%	0 0,0%	0 0,0%	9 4,1%	13 2,7%
Figure	10 34,5%	45 38,5%	21 28,0%	13 30,2%	83 38,1%	172 35,7%
Distance	7 24,1%	38 32,5%	17 22,7%	7 16,3%	64 29,4%	133 27,6%
Object	10 34,5%	32 27,4%	37 49,3%	20 46,5%	60 27,5%	159 33,0%
Eyes closed	0 0,0%	0 0,0%	0 0,0%	3 7,0%	2 0,9%	5 1,0%
Total	29 100,0%	117 100,0%	75 100,0%	43 100,0%	218 100,0%	482 100,0%

4.2.4 Findings on the interpersonal metafunction by spokesperson group

The findings on the interpersonal function by spokespersons are shown in Table 16. All spokesperson groups have higher proportions of high rather than low modality images. The consumer had the lowest share of high modality images, but even that was 59.0 %.

In terms of the image settings discrepancies were apparent. An informal-non-pharmaceutical setting was preferred for consumers (67.5 %), whereas employees

and experts were most commonly found in formal-pharmaceutical settings (76.3 % and 92.1 % respectively). Business professionals, on the other hand, had a strong preference for formal-non-pharmaceutical settings (90.4 %). The image setting turned out to be a key determinant in categorising the figures into the spokesperson groups along with the clothing.

In terms of the social distance two key trends emerged. Firstly, business professionals were mostly depicted at a public distance (64.4 %), which in turn means that they will have been shown in groups of four or more figures in images. This will be verified when examining the results for the compositional function in Subsection 4.4.4. Secondly, employees and experts were in most cases shown at a far personal distance (41.9 % and 42.1 % respectively). The far personal distance refers to images where a figure can be seen from the waist up. Consumers were almost drawn between these two distances with 38.8 % of figures being depicted at a public distance and 30.6 % at a far personal distance.

Consumers (77.4 %), employees (85.7 %) and business professionals (100.0 %) were all strongly linked to positive affect for the appraisal dimension. Experts were drawn between positive affect and positive judgement (50.0 % each). The relatively high share of positive judgements among experts is reasonable, as doctors in particular are often perceived as heroes in many cultures. No generalisation should, however, be drawn the sample sizes being so low for this dimension.

At the rank of figure, the interpersonal function by spokesperson group included the analysis of the gaze of the figures and the focal points. The gaze of the consumers spread most evenly along the five alternatives with distance (36.5 %) and other figure (36.2 %), however, taking the largest shares. Employees concentrated mostly on an inanimate object (62.5 %) as most of the narrative images with employees depicted a typical working situation in a pharmaceutical company, an example of which can be seen in Image 8. The experts only looked at one of two directions: at an inanimate object (58.8 %) or another figure (41.2 %). This is rational as the narrative images of experts commonly showed a doctor either talking to a patient or nursing a patient with a medical instrument. The biggest share of business professionals gazed at other figures (42.0 %), which corresponds to the negotiations often depicted in such images.

Table 16: Results on the interpersonal elements at the rank of work by spokesperson group

<i>Modality</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
High	158 59.0%	62 66.7%	24 63.2%	70 67.3%	314 62.4%
Low	110 41.0%	31 33.3%	14 36.8%	34 32.7%	189 37.6%
Total	268 100.0%	93 100.0%	38 100.0%	104 100.0%	503 100.0%

<i>Setting</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Formal-pharmaceutical	31 11.6%	71 76.3%	35 92.1%	1 1.0%	138 27.4%
Informal-pharmaceutical	4 1.5%	7 7.5%	0 0.0%	0 0.0%	11 2.2%
Formal-non-pharmaceutical	52 19.4%	13 14.0%	3 7.9%	94 90.4%	162 32.2%
Informal-non-pharmaceutical	181 67.5%	2 2.2%	0 0.0%	9 8.7%	192 38.2%
Total	268 100.0%	93 100.0%	38 100.0%	104 100.0%	503 100.0%

<i>Social distance</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Intimate	20 7.5%	9 9.7%	3 7.9%	0 0.0%	32 6.4%
Close personal	37 13.8%	11 11.8%	9 23.7%	17 16.3%	74 14.7%
Far personal	82 30.6%	39 41.9%	16 42.1%	16 15.4%	153 30.4%
Close social	19 7.1%	4 4.3%	1 2.6%	0 0.0%	24 4.8%
Far social	6 2.2%	13 14.0%	0 0.0%	4 3.8%	23 4.6%
Public	104 38.8%	17 18.3%	9 23.7%	67 64.4%	197 39.2%
Total	268 100.0%	93 100.0%	38 100.0%	104 100.0%	503 100.0%

<i>Appraisal</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Affect-positive	96 77.4%	6 85.7%	6 50.0%	20 100.0%	128 78.5%
Affect-negative	4 3.2%	0 0.0%	0 0.0%	0 0.0%	4 2.5%
Judgement-positive	21 16.9%	1 14.3%	6 50.0%	0 0.0%	28 17.2%
Judgement-negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Appreciation-positive	3 2.4%	0 0.0%	0 0.0%	0 0.0%	3 1.8%
Appreciation-negative	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Total	124 100.0%	7 100.0%	12 100.0%	20 100.0%	163 100.0%

Table 17: Results on the interpersonal elements at the rank of figure by spokesperson group

<i>Gaze</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Camera	10 3.8%	2 2.3%	0 0.0%	1 1.0%	13 2.7%
Figure	94 36.2%	22 25.0%	14 41.2%	42 42.0%	172 35.7%
Distance	95 36.5%	9 10.2%	0 0.0%	29 29.0%	133 27.6%
Object	56 21.5%	55 62.5%	20 58.8%	28 28.0%	159 33.0%
Eyes closed	5 1.9%	0 0.0%	0 0.0%	0 0.0%	5 1.0%
Total	260 100.0%	88 100.0%	34 100.0%	100 100.0%	482 100.0%

<i>Focal point</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Yes	98 36.6%	55 59.1%	21 55.3%	39 37.5%	213 42.3%
No	170 63.4%	38 40.9%	17 44.7%	65 62.5%	290 57.7%
Total	268 100.0%	93 100.0%	38 100.0%	104 100.0%	503 100.0%

A clear distinction interestingly formed in terms of which spokespersons acted as the focal points in the images. Employees and experts were the centre of the viewer's attention the majority of the times (59.1 % and 55.3 % respectively), whereas both consumers and business professionals were more often not the focal points in the images with shares of 63.4 % and 62.5 % respectively. This is potentially a piece of evidence of the perceived importance of the different spokesperson groups to the pharmaceutical companies. The employees and experts are given central roles in the narrative images perhaps for their greater involvement with the pharmaceutical industry and the higher level of expertise that results from it.

4.3 Findings on the representational metafunction

At the rank of work, the analytical framework included the analysis of the content of the image. Only such images that included narrative themes were selected for the study as explained in Section 3.2 concerning the data collection. The findings that will be

discussed in this section will therefore only include elements at the rank of figure. These elements include consideration on the figures in terms of their gender, age and spokesperson group, as well as their clothing and their role in the ongoing or unfolding action that the narrative theme presents.

4.3.1 Findings on the representational metafunction by company

The representational element of character proposed by O'Toole (1994) was broken down into three elements: gender, age and spokesperson. An interesting finding of the study in terms of gender was the relative preference towards male figures in the companies. Orion was the only one of the case companies to feature more narrative images of women in the images on their websites than men (55.7 % compared to 44.3 %). The other companies had a majority of male figures in their images, the highest percentage being Sanofi's 64.8 %.

In terms of age there were smaller discrepancies. All four companies had a significant majority of adult figures. There were, however, differences in shares of children and young adults in the narrative images. Whereas Sanofi had a share of 30.8 % of children in their images, only 11.0 % of figures found in images on Novartis' websites featured children. The opposite was true for young adults, however, as Novartis represented the highest share with 16.0 % and Sanofi the lowest with 5.8 % of figures in their images.

The low shares of elderly figures can be deemed as slightly surprising, as old age is often related to worsening health in communities. This may, however, reflect the lower levels of internet use among the elderly population. As Whittler and Spira (2002) found, people react more favourably towards advertising, which contains characters that they perceive are similar to them. Furthermore, pharmaceutical companies may not want their website visitors to be faced with visual messages about the inevitable fate of growing old and becoming weaker, but rather opt for messages emphasizing the process of happy and healthy aging.

As discussed, four distinct spokesperson groups were found in the images collected from the websites of the case companies: consumers, employees, experts and business professionals. The group of consumers was very prominent in all four

companies' websites, so much so that it was the most popular group of visual spokespersons in three out of the four companies. On Sanofi's websites 71.0 % of all figures were consumers, a share that was unmatched by the other companies. Orion was the only company that preferred the use of employees as visual spokespersons, although with a very small margin to consumers (41.7 % and 39.8 % respectively), as can be seen in Table 18.

The use of business professionals in images was not consistent among the case companies. Whereas on the Novartis and Pfizer websites the group was the second most popular with shares of 29.5 % and 29.0 % of the images respectively, business professionals were used to a much lesser extent on the Orion and Sanofi websites with shares of 10.7 % and 6.5 % respectively.

What could be deemed as a surprise is the low percentage of expert spokespersons found in the narrative images. Despite it being the second most popular group on Sanofi's websites it only achieved a share of 7.6 % of all figures in the images. An expert visual spokesperson was defined in the context of the pharmaceutical industry as doctors and pharmacists, who could also be argued to fill the role of front-office employees for pharmaceutical companies as the company staff itself has limited and restricted opportunities for interaction with the end-users. For the close interaction with the consumers one could argue that the use of doctors and pharmacists in the images on pharmaceutical companies websites would enhance the credibility of the visual messages and thus enable the source credibility effect to take place. Further research would, however, be in order to prove this argument.

The clothing component reflected the proportions of different types of visual spokespersons in the images for the case companies. For example, the high share of work clothing found in Orion's images is directly related to the high share of employee spokespersons in them. As the clothing was an integral part of the coding to the spokesperson groups, its discussion is more meaningful in that context in Subsection 4.3.4.

Table 18: Results on the representational elements at the rank of figure by company

<i>Gender</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Female	79 39.5%	54 55.7%	35 42.2%	32 35.2%	200 42.5%
Male	121 60.5%	43 44.3%	48 57.8%	59 64.8%	271 57.5%
Total	200 100.0%	97 100.0%	83 100.0%	91 100.0%	471 100.0%

<i>Age</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Child	22 11.0%	21 20.6%	19 20.4%	32 30.8%	94 18.8%
Young adult	32 16.0%	9 8.8%	11 11.8%	6 5.8%	58 11.6%
Adult	136 68.0%	68 66.7%	61 65.6%	63 60.6%	328 65.7%
Elderly	10 5.0%	4 3.9%	2 2.2%	3 2.9%	19 3.8%
Total	200 100.0%	102 100.0%	93 100.0%	104 100.0%	499 100.0%

<i>Spokesperson</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Consumer	111 55.5%	41 39.8%	40 43.0%	76 71.0%	268 53.3%
Employee	21 10.5%	43 41.7%	19 20.4%	10 9.3%	93 18.5%
Expert	9 4.5%	8 7.8%	7 7.5%	14 13.1%	38 7.6%
Business professional	59 29.5%	11 10.7%	27 29.0%	7 6.5%	104 20.7%
Total	200 100.0%	103 100.0%	93 100.0%	107 100.0%	503 100.0%

<i>Clothing</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Casual	76 38.0%	41 40.2%	30 32.3%	68 63.6%	215 42.8%
Smart	85 42.5%	12 11.8%	31 33.3%	11 10.3%	139 27.7%
Work	22 11.0%	49 48.0%	23 24.7%	22 20.6%	116 23.1%
Not in picture	17 8.5%	0 0.0%	9 9.7%	5 4.7%	31 6.2%
No clothes	0 0.0%	0 0.0%	0 0.0%	1 0.9%	1 0.2%
Total	200 100.0%	102 100.0%	93 100.0%	107 100.0%	502 100.0%

4.3.2 Findings on the representational metafunction by website

In terms of the global and localised websites, male figures were preferred in all websites studied. Whereas the global and home country websites showed similar shares of male figures (54.4 % and 55.1 % respectively), the Chinese localised websites had a share as high as 73.8 % of male figures. This implies that there is an extent of localisation of visual messages at least in terms of the figures in the narrative images.

On all the websites, adults are the most prominent age group. The Chinese website shows the greatest preference for adult figures with a share of 73.3 % compared to 62.8 % on the global websites and 65.0 % on the home country websites. The second most prominent age group for all websites is children, although with significantly lower shares. The global websites feature a greater share of child figures compared to the other websites with a share of 24.4 %. The home country website features 16.6 % of child figures whereas the Chinese website 16.0 %. There are some discrepancies in terms of the use of young adults in images as well. For home country websites young adults gained a share of 14.8 % but the global websites only had a share of 9.0 % and the Chinese websites 6.7 %. The use of elderly figures was relatively similar across the different websites.

Table 19: Results on the representational elements at the rank of figure by website

<i>Gender</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Female	136 45.6%	118 44.9%	17 26.2%	271 43.3%
Male	162 54.4%	145 55.1%	48 73.8%	355 56.7%
Total	298 100.0%	263 100.0%	65 100.0%	626 100.0%

<i>Age</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Child	76 24.4%	46 16.6%	12 16.0%	134 20.2%
Young adult	28 9.0%	41 14.8%	5 6.7%	74 11.1%
Adult	196 62.8%	180 65.0%	55 73.3%	431 64.9%
Elderly	12 3.8%	10 3.6%	3 4.0%	25 3.8%
Total	312 100.0%	277 100.0%	75 100.0%	664 100.0%

<i>Spokesperson</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Consumer	169 54.0%	138 49.8%	31 39.7%	338 50.6%
Employee	62 19.8%	52 18.8%	23 29.5%	137 20.5%
Expert	26 8.3%	11 4.0%	9 11.5%	46 6.9%
Business professional	56 17.9%	76 27.4%	15 19.2%	147 22.0%
Total	313 100.0%	277 100.0%	78 100.0%	668 100.0%

<i>Clothing</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Casual	151 48.4%	99 35.9%	23 29.5%	273 41.0%
Smart	65 20.8%	99 35.9%	21 26.9%	185 27.8%
Work	78 25.0%	58 21.0%	29 37.2%	165 24.8%
Not in picture	17 5.4%	20 7.2%	5 6.4%	42 6.3%
No clothes	1 0.3%	0 0.0%	0 0.0%	1 0.2%
Total	312 100.0%	276 100.0%	78 100.0%	666 100.0%

All three websites favoured the use of consumers in the narrative images, although to varying extents. Global websites had the highest share of consumers with 54.0 % just surpassing home country websites with 49.8 % but the Chinese websites featured a much lower share of 39.7 % of consumers. The Chinese websites, however, featured a much greater proportion of employees in figures compared to the other websites. Employees were depicted in 29.5 % of figures on the Chinese websites compared to 19.8 % on the global and 18.8 % on the home country websites. The use of experts was also the most prominent on the Chinese websites (11.5 %), whereas business professionals gained the highest share on the home country websites (27.4 %). Again, the clothing component matched the shares of the different spokesperson groups.

4.3.3 Findings on the representational metafunction by section

Examining the results by section on Table 20 an interesting discrepancy is visible in terms of the gender of the figures. Only the Products & Services –section has a majority of female figures, although the Research & Development –section features equal shares of both genders. The biggest difference between the genders is found on the homepages of the websites, where 66.7 % of figures are male.

In terms of the age of the figures, adults are prominently featured in all sections. Interestingly, however, the Sustainability-section seems to also show a slight tendency towards younger figures with children gaining a share of 23.6 % and young adults a share of 16.4 % of figures in this section. The Products & Services –section, however, has the highest share of child figures (25.0 %) as well as elderly figures (6.8 %). Interestingly, no elderly figures were presented on the homepages of the websites.

Consumers were the most prominent group of visual spokespersons in all of the sections examined. The highest shares were found on the homepages (62.5 %) and the Sustainability-section (63.6 %). Of the figures found on the Products & Services –section 50.0 % were consumers. The other two sections, however, remained below the 50 percent mark (About us with 42.1 % and Research & Development 39.2 %). Employees were mostly found on the Research & Development -section (30.4 %) and on the homepages (28.1 %), whereas experts were preferred on the Products & Services – (21.7 %) and Research & Development –sections (15.2 %). The most business

professionals were present in the About us – (34.7 %) and Sustainability-sections (20.4%). Yet again, the clothing components reflected on the shares of the different spokesperson groups.

Table 20: Results on the representational elements at the rank of figure by section

<i>Gender</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Female	9	44	36	17	94	200
	33.3%	37.3%	50.0%	54.8%	42.2%	42.5%
Male	18	74	36	14	129	271
	66.7%	62.7%	50.0%	45.2%	57.8%	57.5%
Total	27	118	72	31	223	471
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

<i>Age</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Child	7	17	6	11	53	94
	22.6%	14.0%	7.7%	25.0%	23.6%	18.8%
Young adult	3	6	9	3	37	58
	9.7%	5.0%	11.5%	6.8%	16.4%	11.6%
Adult	21	96	60	27	124	328
	67.7%	79.3%	76.9%	61.4%	55.1%	65.7%
Elderly	0	2	3	3	11	19
	0.0%	1.7%	3.8%	6.8%	4.9%	3.8%
Total	31	121	78	44	225	499
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

<i>Spokesperson</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Consumer	20	51	31	23	143	268
	62.5%	42.1%	39.2%	50.0%	63.6%	53.3%
Employee	9	21	24	10	29	93
	28.1%	17.4%	30.4%	21.7%	12.9%	18.5%
Expert	2	7	12	10	7	38
	6.3%	5.8%	15.2%	21.7%	3.1%	7.6%
Business professional	1	42	12	3	46	104
	3.1%	34.7%	15.2%	6.5%	20.4%	20.7%
Total	32	121	79	46	225	503
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

<i>Clothing</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Casual	17	39	27	15	117	215
	53.1%	32.2%	34.6%	32.6%	52.0%	42.8%
Smart	4	47	15	4	69	139
	12.5%	38.8%	19.2%	8.7%	30.7%	27.7%
Work	11	24	30	19	32	116
	34.4%	19.8%	38.5%	41.3%	14.2%	23.1%
Not in picture	0	11	6	8	6	31
	0.0%	9.1%	7.7%	17.4%	2.7%	6.2%
No clothes	0	0	0	0	1	1
	0.0%	0.0%	0.0%	0.0%	0.4%	0.2%
Total	32	121	78	46	225	502
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

4.3.4 Findings on the representational metafunction by spokesperson group

As presented by Table 21, which contains the results on the representational function by spokesperson, the majority of all spokespersons were depicted by male figures. Whereas the other spokespersons were within 4 percentage points of each other (between 54.9 % and 58.6 %), business professionals had as large a share as 65.4 % of male figures.

The age groups showed logical discrepancies between the spokespersons. Adults were the most prominent group for all spokespersons. It was also the larger of only two age categories for employees, experts and business professionals, the other being young adults. This makes sense, as to qualify for these titles in reality requires an extensive amount of training and education. Interestingly though, only 2.6 % of expert figures were young adults, which implies that the case companies rely on the assumption that expertise is something that is gained through life experience. No elderly figures were depicted as members of these spokesperson groups due to the retirement age. Having said that an elderly expert figure could have been visually represented through cues other than those related to profession, a stereotypical example of which could be the elderly mentor often present in representations of the Asian cultures.

The clothing became an important signifier of the different spokesperson groups. Although some exceptions were found, the majority of consumers were depicted in casual clothes (77.9 %), whereas employees (87.1 %) and experts (92.1 %) wore work clothes, and business professionals smart business clothes (98.1 %). The greatest variation could be found among the consumers and the employees. Of the consumers 12.0 % were found to wear smart clothes, whereas for 9.7 % of the figures the image was framed so that no clothes could be seen. Furthermore, one figure was also presented with no clothes at all. Of the employees 6.5 % were presented with casual clothing and 4.3 % with smart clothes. These figures were identified as employees through other elements than clothing, such as the image setting or the presence of the company logo.

Table 21: Results on the representational elements at the rank of figure by spokesperson group

<i>Gender</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Female	116 45.1%	36 44.4%	12 41.4%	36 34.6%	200 42.5%
Male	141 54.9%	45 55.6%	17 58.6%	68 65.4%	271 57.5%
Total	257 100.0%	81 100.0%	29 100.0%	104 100.0%	471 100.0%

<i>Age</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Child	94 35.1%	0 0.0%	0 0.0%	0 0.0%	94 18.8%
Young adult	26 9.7%	14 15.7%	1 2.6%	17 16.3%	58 11.6%
Adult	129 48.1%	75 84.3%	37 97.4%	87 83.7%	328 65.7%
Elderly	19 7.1%	0 0.0%	0 0.0%	0 0.0%	19 3.8%
Total	268 100.0%	89 100.0%	38 100.0%	104 100.0%	499 100.0%

<i>Clothing</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Casual	208 77.9%	6 6.5%	1 2.6%	0 0.0%	215 42.8%
Smart	32 12.0%	4 4.3%	1 2.6%	102 98.1%	139 27.7%
Work	0 0.0%	81 87.1%	35 92.1%	0 0.0%	116 23.1%
Not in picture	26 9.7%	2 2.2%	1 2.6%	2 1.9%	31 6.2%
No clothes	1 0.4%	0 0.0%	0 0.0%	0 0.0%	1 0.2%
Total	267 100.0%	93 100.0%	38 100.0%	104 100.0%	502 100.0%

<i>Role in the action</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Actor	73 42.7%	63 84.0%	28 87.5%	33 53.2%	197 57.9%
Goal	98 57.3%	12 16.0%	4 12.5%	29 46.8%	143 42.1%
Total	171 100.0%	75 100.0%	32 100.0%	62 100.0%	340 100.0%

The narrative themes depicted in the images more often than not had one actor and at least one goal. Some images were, however, also found, which included more than one actor or no figures as the goals of the actions. In the latter cases, the narrative image depicted an actor operating a machine or handling an inanimate object. An interesting finding shown in Table 21 is that consumers were mostly depicted as goals of actions (57.3 %) rather than as actors themselves (42.7 %). The other figures, however, were more often actors. The difference was especially significant among employees and experts, who in 84.0 % and 87.5 % of the cases respectively were the actors of the narratives. This may be used to communicate about the active role that employees and experts have in healthcare. However, as noted by Blackett and Harrison (2001) consumers have also actively regained power for their own healthcare decision-making, which, however, is not represented in the set of images studied.

4.4 Findings on the compositional metafunction

Through the compositional function, the study aimed to gain knowledge on how the structural choices made by the pharmaceutical companies when selecting the narrative images for their websites influence the message sent to the website visitors. This mission was embarked on through four visual elements. Firstly, at the rank of work the positioning of the image on a web page was coded in terms of top, middle and bottom depending on the relation of the image and other content on the web page. Top referred to banners on top of the page above the actual content of the page. Middle signified images that were in the middle of the page among the content. This often meant that the image was surrounded by textual information. The bottom of the page referred to images that have no content below the picture. Secondly, the number of figures in the images was coded. Discrepancies in terms of the total numbers were found, as some images did not include figures but only parts of them, members. Thirdly, at the rank of figure the positioning of figures within the image was analysed and coded into left, centre and right. Finally, the alignment of figures to the vertical axis or a diagonal axis was noted.

4.4.1 Findings on the compositional metafunction by company

As can be seen in Table 22, the most popular positioning for a narrative image was in the midst of other content on the website with a combined share of 53.7 % of all the images analysed in this study. The top of the page is also a popular position with a share of 37.7 %. The difference between the two positions may be explained by the potential for visual content in them. Whereas the middle part of a web page can be organised in various ways, the top part is often restricted by the site hierarchy. All of the narrative images placed on top of the page were banners, and although in many cases they included several different images that changed as a slide show, the coherence and design of the web page would have suffered if their number had been too great.

The greatest notable discrepancy within the positioning of the images is Orion, whose shares of the different positions are not as divided as the other companies'. Furthermore, Orion's websites had the most images as the top banners of the web pages, whereas the other companies favoured the middle of the page. This would imply that images are placed along the commonly accepted F-shaped website viewing pattern that indicates that website visitors scan the top, middle and left-hand side of the page (Shrestha & Owens, 2008). The F-shaped pattern has, however, been established on websites with textual content, for which reason its applicability into viewing multimodal websites including several semiotic resources is not guaranteed. Awareness of images on websites has been widely researched in the context of advertising, where Drèze and Hussherr (2003) found out that only 50 % of website visitors consciously look at banner adverts on top of a web page. The researchers suggest that website visitors deliberately avoid looking at banner adverts (2003, p. 8). There is, however, no previous research on the relationship between online advertisements and visual communication through images online, and consequently these results cannot be accepted into the field of visual communication without further research.

On top of a trend towards short social distances, the companies show a tendency towards the use of fewer figures in the narrative images. A total of 61.5 % of the analysed images included either one or two figures in them. In accordance with the popularity of the public distance, the use of four and five or more figures in images also

gained notable combined share. Not all the images containing four figures were, however, depicting a public distance. This is because they did not fill the requirement of far personal distance or further. 15 of the images analysed contained just a member of a figure, which explains the discrepancy in the total cell of the table.

Table 22: Results on the compositional elements at the rank of work by company

<i>Positioning</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Top	36 34.0%	22 43.1%	23 42.6%	16 34.8%	97 37.7%
Middle	65 61.3%	17 33.3%	28 51.9%	28 60.9%	138 53.7%
Bottom	5 4.7%	12 23.5%	3 5.6%	2 4.3%	22 8.6%
Total	106 100.0%	51 100.0%	54 100.0%	46 100.0%	257 100.0%

<i>Number of figures</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
1.00	26 26.0%	17 37.0%	16 31.4%	19 42.2%	78 32.2%
2.00	28 28.0%	15 32.6%	16 31.4%	12 26.7%	71 29.3%
3.00	8 8.0%	6 13.0%	7 13.7%	2 4.4%	23 9.5%
4.00	6 6.0%	4 8.7%	4 7.8%	2 4.4%	16 6.6%
5 or more	32 32.0%	4 8.7%	8 15.7%	10 22.2%	54 22.3%
Total	100 100.0%	46 100.0%	51 100.0%	45 100.0%	242 100.0%

The division of figures within the narrative images was fairly even in all companies, as seen in Table 23, with Novartis and Sanofi having similar shares for each position, and Orion and Pfizer favouring the centre of the image just over the left- and right-hand sides.

Table 23: Results on the compositional elements at the rank of figure by company

<i>Positioning of figures</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Left	69 34.5%	22 21.4%	27 29.0%	39 36.4%	157 31.2%
Centre	68 34.0%	51 49.5%	39 41.9%	38 35.5%	196 39.0%
Right	63 31.5%	30 29.1%	27 29.0%	30 28.0%	150 29.8%
Total	200 100.0%	103 100.0%	93 100.0%	107 100.0%	503 100.0%

<i>Alignment</i>	<i>Novartis</i>	<i>Orion</i>	<i>Pfizer</i>	<i>Sanofi</i>	<i>Total</i>
Straight	145 72.5%	83 80.6%	57 61.3%	64 61.5%	349 69.8%
Diagonally	55 27.5%	20 19.4%	36 38.7%	40 38.5%	151 30.2%
Total	200 100.0%	103 100.0%	93 100.0%	104 100.0%	500 100.0%

All companies preferred to align figures to the vertical axis on the narrative images portraying them as standing or sitting straight. The difference was not as great with Pfizer and Sanofi, as the companies used figures aligned to a diagonal axis in 38.7 % and 38.5 % of the figures respectively.

4.4.2 Findings on the compositional metafunction by website

Looking at the results by website, as presented in Table 24, slight differences are visible. Whereas the home country and Chinese localised websites follow along the same lines with differences of only up to four percentage points, the global websites show greater variation in the positioning of narrative images. The most common position used on the global website is the top of the page (47.1 %), whereas the home country and Chinese website favour the middle (59.5 % and 59.1 % respectively). The global websites also utilise the bottom of the page for visual messages more than the other two types of websites examined, however the differences are far smaller in this case. One might have expected there to be differences between the Chinese website and the other two types of websites considering the different reading paths in Western and Chinese cultures. This was, however, not supported by the results, which could imply

that there are little or no differences between the reading paths online, or that these are not considered in the process of visual communication on websites.

The results on the number of figures in narrative images showed resemblance to the results on social distance. The closer social distances were preferred on the global and Chinese localised websites, which on Table 24 translate to a preference of less figures in images. In fact, the Chinese websites has as high percentage as 50.0 % of figures in the images on their own. On the global websites the most common number of figures in an image is two (35.0 %) followed by one (30.0 %). On the home country websites, however, equal shares of 27.9 % were gained by both one figure and five or more figures in images. Furthermore, two figures in an image gained only a slightly lower share of 27.1 %.

Table 24: Results on the compositional elements at the rank of work by website

<i>Positioning</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Top	72 47.1%	48 32.4%	16 36.4%	136 39.4%
Middle	64 41.8%	88 59.5%	26 59.1%	178 51.6%
Bottom	17 11.1%	12 8.1%	2 4.5%	31 9.0%
Total	153 100.0%	148 100.0%	44 100.0%	345 100.0%

<i>Number of figures</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
1.00	42 30.0%	39 27.9%	21 50.0%	102 31.7%
2.00	49 35.0%	38 27.1%	9 21.4%	96 29.8%
3.00	16 11.4%	14 10.0%	6 14.3%	36 11.2%
4.00	10 7.1%	10 7.1%	2 4.8%	22 6.8%
5 or more	23 16.4%	39 27.9%	4 9.5%	66 20.5%
Total	140 100.0%	140 100.0%	42 100.0%	322 100.0%

Only small differences were evident in the positioning of figures in narrative images between the different websites, as shown by Table 25. All websites preferred the centre of an image for figures with the left- and right-hand side gaining almost equal shares on

each website type. The Chinese localised website, however, showed a more significant tendency towards the centre of the image with a share of 44.9 % compared to that of 38.7 % on the global websites and 38.6 % on the home country ones.

On all websites the aligning of figures to the vertical axis was preferred to that of an alignment to a diagonal axis. Minor differences were visible but all websites still remained within five percentage points of each other.

Table 25: Results on the compositional elements at the rank of figure by website

<i>Positioning of figures</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Left	96 30.7%	87 31.4%	21 26.9%	204 30.5%
Centre	121 38.7%	107 38.6%	35 44.9%	263 39.4%
Right	96 30.7%	83 30.0%	22 28.2%	201 30.1%
Total	313 100.0%	277 100.0%	78 100.0%	668 100.0%

<i>Alignment</i>	<i>Global</i>	<i>Home country</i>	<i>China</i>	<i>Total</i>
Straight	220 70.3%	197 71.1%	50 66.7%	467 70.2%
Diagonally	93 29.7%	80 28.9%	25 33.3%	198 29.8%
Total	313 100.0%	277 100.0%	75 100.0%	665 100.0%

4.4.3 Findings on the compositional metafunction by section

Looking at the compositional findings by section on Table 26 clear discrepancies are visible in terms of the positioning of images on web pages. On the homepages, the images were most often placed at the top of the page as banners (87.5 %) with no narrative images having been placed below other content at the bottom of the page. On the About us- and Sustainability-sections the middle part of the page was preferred for narrative images. The Products & Services- and especially the Research & Development –sections showed greater variance in the placing of the images. Both sections still exhibited a preference towards the top of the page (46.0 % and 50.0 % respectively) but with a much smaller margin to the second most favoured position, the middle, compared

to the other sections (34.0 % and 42.9 % respectively). Furthermore, 20.0 % of images on the Research & Development –section were placed below other content at the bottom of the page.

There were clear patterns visible in terms of the numbers of figures in the images as shown in Table 26. The homepages and Products & Services -section mostly showed just one figure in a narrative image (46.7 % and 53.8 % respectively). The Research & Development –section also had a prominent share of lone figures (51.1 %), although the use of two figures was also not uncommon (35.6 %). On the About us –section three compilations were more popular than the rest: one (26.8 %), two (31.0 %) and five or more figures (25.4 %). The Sustainability-section included mostly images of five or more figures (35.3 %) or ones with two figures (30.6 %).

Table 26: Results on the compositional elements at the rank of work by section

<i>Positioning</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Top	14 87.5%	17 22.7%	23 46.0%	14 50.0%	29 33.0%	97 37.7%
Middle	2 12.5%	54 72.0%	17 34.0%	12 42.9%	53 60.2%	138 53.7%
Bottom	0 0.0%	4 5.3%	10 20.0%	2 7.1%	6 6.8%	22 8.6%
Total	16 100.0%	75 100.0%	50 100.0%	28 100.0%	88 100.0%	257 100.0%

<i>Number of figures</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
1.00	7 46.7%	19 26.8%	23 51.1%	14 53.8%	15 17.6%	78 32.2%
2.00	2 13.3%	22 31.0%	16 35.6%	5 19.2%	26 30.6%	71 29.3%
3.00	2 13.3%	6 8.5%	3 6.7%	5 19.2%	7 8.2%	23 9.5%
4.00	2 13.3%	6 8.5%	0 0.0%	1 3.8%	7 8.2%	16 6.6%
5 or more	2 13.3%	18 25.4%	3 6.7%	1 3.8%	30 35.3%	54 22.3%
Total	15 100.0%	71 100.0%	45 100.0%	26 100.0%	85 100.0%	242 100.0%

At the rank of figure the results of the compositional function show that most of the sections preferred the placing of figures at the centre of images. One exception to this

rule, however, as seen in Table 27, is the Research & Development –section, which shows a very slight tendency towards figures on the right-hand side of images (38.0 % compared to 36.7 % at the centre). As the Research & Development operations in a company aim at developing new innovative solutions and products, the placing of figures on the right-hand side of images can be seen as communicating this message visually. As discussed in Section 2.5 as well as noted by Hopearuoho and Ventola (2009, p. 188) and Kress and van Leeuwen (2006, p. 181) the right-hand side is comparable to a rheme in a clause: it presents something new that was not known beforehand.

The analysis of the alignment of figures to axes also produced an interesting result, as seen in Table 27. Whereas the majority of figures in all the sections studied were aligned to the vertical axis, the homepages of the websites featured a greater proportion of figures that were diagonally in the image. This suggests that the companies want to bring dynamism and energy into the homepages through visual means, perhaps to make it more inviting and fun.

Table 27: Results on the compositional elements at the rank of figure by section

<i>Positioning of figures</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Left	10 31.3%	39 32.2%	20 25.3%	15 32.6%	73 32.4%	157 31.2%
Centre	15 46.9%	43 35.5%	29 36.7%	16 34.8%	93 41.3%	196 39.0%
Right	7 21.9%	39 32.2%	30 38.0%	15 32.6%	59 26.2%	150 29.8%
Total	32 100.0%	121 100.0%	79 100.0%	46 100.0%	225 100.0%	503 100.0%

<i>Alignment</i>	<i>Homepage</i>	<i>About us</i>	<i>R&D</i>	<i>Products & Services</i>	<i>Sustainability</i>	<i>Total</i>
Straight	19 59.4%	81 66.9%	55 69.6%	31 72.1%	163 72.4%	349 69.8%
Diagonally	13 40.6%	40 33.1%	24 30.4%	12 27.9%	62 27.6%	151 30.2%
Total	32 100.0%	121 100.0%	79 100.0%	43 100.0%	225 100.0%	500 100.0%

4.4.4 Findings on the compositional metafunction by spokesperson group

As seen in Table 28 presenting the results on the compositional function by spokesperson, the majority of figures were placed in the middle of the web page. An exception to this is the group of experts, which were more commonly placed at the top banner (47.4 %) although by a small margin to the middle of the page (42.1 %). Relating this back to research by Kress and van Leeuwen (2006) discussed in Subsection 2.5.3 it would seem that companies consider narrative images with experts in them less subservient to text compared to images with other spokespersons. The informational value of images containing experts would therefore be considered higher compared to that of images containing other spokespersons. More research should, however, be conducted to prove this assumption in a larger context.

Table 28 also shows the results of the analysis in terms of how many figures were presented in narrative images by spokesperson groups. Some trends are visible from the results. First of all, employees tend to be depicted in images either by themselves (37.6 %) or with one other figure (25.8 %). Consumers and business professionals, however, are rarely depicted by themselves but are mostly in groups of five or more figures (40.4 % and 39.4 % respectively). Experts, on the other hand, seem to provide a compromise between the other spokespersons. The biggest share of experts are shown in images with one other figure (36.8 %) followed by a group of 5 or more figures (23.7 %) and no other figures at all (21.1 %).

Table 28: Results on the compositional elements at the rank of work by spokesperson group

<i>Positioning</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Top	112 41.8%	38 40.9%	18 47.4%	29 27.9%	197 39.2%
Middle	136 50.7%	47 50.5%	16 42.1%	71 68.3%	270 53.7%
Bottom	20 7.5%	8 8.6%	4 10.5%	4 3.8%	36 7.2%
Total	268 100.0%	93 100.0%	38 100.0%	104 100.0%	503 100.0%

<i>Number of figures</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
1.00	21 7.9%	35 37.6%	8 21.1%	9 8.7%	73 14.5%
2.00	83 31.1%	24 25.8%	14 36.8%	15 14.4%	136 27.1%
3.00	34 12.7%	14 15.1%	6 15.8%	9 8.7%	63 12.5%
4.00	21 7.9%	8 8.6%	1 2.6%	30 28.8%	60 12.0%
5 or more	108 40.4%	12 12.9%	9 23.7%	41 39.4%	170 33.9%
Total	267 100.0%	93 100.0%	38 100.0%	104 100.0%	502 100.0%

Examining the results on the compositional function at the rank of figure shown in Table 29 there is no clear evidence of the theme and rheme in terms of the spokesperson groups. No major discrepancies arose through the analysis, which implies that all the spokespersons are considered as either familiar or unfamiliar to the viewer depending on the image.

In terms of the alignment of figures it is clear that all spokespersons are aligned to the vertical axis in the majority of cases. This suggests that the case companies want to rather depict visual spokespersons as stable and calm than as energetic and dynamic.

Table 29: Results on the compositional elements at the rank of figure by spokesperson group

<i>Positioning of the figures</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	<i>Total</i>
Left	86 32.1%	25 26.9%	13 34.2%	33 31.7%	157 31.2%
Centre	99 36.9%	44 47.3%	13 34.2%	40 38.5%	196 39.0%
Right	83 31.0%	24 25.8%	12 31.6%	31 29.8%	150 29.8%
Total	268 100.0%	93 100.0%	38 100.0%	104 100.0%	503 100.0%

<i>Alignment</i>	<i>Consumer</i>	<i>Employee</i>	<i>Expert</i>	<i>Business professional</i>	
Straight	181 67.8%	67 73.6%	27 71.1%	74 71.2%	349 69.8%
Diagonally	86 32.2%	24 26.4%	11 28.9%	30 28.8%	151 30.2%
Total	267 100.0%	91 100.0%	38 100.0%	104 100.0%	500 100.0%

Chapter 4 has presented the findings of the study and thus provided a basis for the discussion on their implications in terms of the research questions of the study, as outlined in Section 1.2. Chapter 5 will view the findings in the light of the research objectives providing insights into the topic of visual communication through narrative images in the pharmaceutical industry.

5. Discussion

This chapter will discuss the research findings in reflection to previous research presented in the literature review in Chapter 2. The chapter is divided into four sections according to the research questions of the study presented in Section 1.2. Section 5.1 will provide answers to how the pharmaceutical industry is presented in the images studied. Section 5.2 discusses the groups of spokespersons identified in the images and provides details on their visual signifiers. Section 5.3 addresses the concept of source credibility effect and reflects on how the spokespersons discussed in Section 5.2 enable the source credibility effect to take place according to prior research. Finally, Section 5.4 discusses visual elements in the images that were localised to different audiences and those that were globally standardised.

5.1 The representation of the pharmaceutical industry in the narrative images

The first research question concerned the way in which the pharmaceutical industry is presented in images on the websites of multinational pharmaceutical companies. The images were analysed based on a framework composed of the visual grammars of Kress and van Leeuwen (2006) and O'Toole (1994), as is outlined in Table 3.

High modality, which refers to unaltered images, was favoured to altered low modality images. However, only the Sustainability- and Research & Development - sections featured more high than low modality images. Research shows that the modality refers to the credibility of the image as it relates to the extent of realism that consumers apply to images (Kress & van Leeuwen, 2006, p. 155). The case companies thus seem to use highly credible and realistic images in sections, which are often the subject of greater scrutiny by different stakeholders. The reasons behind the use of low modality images on the homepages as well as About us- and Products & Services – sections are, however, unclear.

The two most popular settings in the images were informal-non-pharmaceutical (38.5 %) and formal-pharmaceutical (37.0 %). The prominence of the informal-non-pharmaceutical setting in narrative images acts as evidence to show that pharmaceutical companies want to relate their operations into the lives of the consumers, and not only communicate about the company internal processes. The informal-non-pharmaceutical settings contain regular people living their lives normally, implying examples of the effects of the pharmaceutical products by the company. Interestingly, a total of 60.5 % of the images studied featured a traditionally non-pharmaceutical setting suggesting that communicating about the outcomes of medicinal products and good healthcare is more important to pharmaceutical companies than communicating about their day-to-day operations. The informal-pharmaceutical setting was the least favoured setting with only 2.3 % of the images.

The companies prefer the use of intimate (16.3 %), close personal (17.9 %), far personal (30.4 %) and public distances (25.3 %) in images on their websites. The close distances imply that the images are being used to form relationships as viewers are invited into the images as though they were already familiar with the figures. The public distance was preferred on the Sustainability and About us –sections, where it was used to create a communal atmosphere showing the pharmaceutical company as a good corporate citizen.

An impressive 95.9 % of narrative images that could be categorised on the feelings portrayed showed positive emotional appeals, mostly of people smiling and looking happy. The focus seems to therefore be on the results of effective healthcare. The use of negative emotional appeals has, however, been shown to have better results in terms of attitude change and action in advertising. Currently these have not been utilised by the case companies on their websites apart from in two images out of the 257 studied. It would therefore seem that pharmaceutical companies are more inclined to create positive experiences rather than changing unfavourable attitudes.

In line with the lack of negative emotional appeals, illness is also only rarely present in the images. Some patients are pictured being treated but even in such cases positive emotional appeals are employed to create a happy and direct atmosphere. Images also feature significantly low numbers of elderly figures (3.8 %) suggesting that the inevitable worsening of health through old age is also being neglected as a topic.

Gaze was most commonly at another figure (35.7 %), an inanimate object (33.0 %) or into the distance (27.6 %). Gaze directly towards the camera was rare (2.7 %), however, this form of engagement with the viewer was utilised on the website in portrayals, which were, however, not included in the present study. The images with narrative themes therefore aim to offer information to rather than demand attention from the viewer. This together with the close social distances suggests that the viewer is invited into the images as a quiet observer of the situations, one that is already acquainted to the figures.

The images studied present the pharmaceutical industry as a male dominated field (57.5 %), which holds true in all the spokesperson groups perceived. Men are therefore not only presented as the healthcare professionals but also as the consumers of healthcare. Relating this to prior research (Whittler & Spira, 2002), the most favourable attitude towards the visual messages would thus be witnessed among male website visitors. This can be seen as a risky strategy, as healthcare concerns both genders equally, which suggests that pharmaceutical websites are visited by both genders relatively equally. The impact of the male domination in the images on pharmaceutical websites would provide another interesting and important topic for further research.

The representation of the pharmaceutical industry through the images studied from the websites of the case companies can be summarised into four statements as follows:

1. In narrative images high modality is used to enhance the credibility of visual messages in such sections, which come under greater scrutiny by stakeholder groups
2. Narrative images depict the whole lifecycle of pharmaceutical products from development to consumption and resulting health with notable absence of the illnesses, which are being treated
3. Narrative images show healthcare-related situations with a happy, healthy, direct and inviting atmosphere, in which the figures are already familiar to the viewer
4. Narrative images present the pharmaceutical industry as a male-dominated field

These four statements conclude the answer to the first research question on how the pharmaceutical industry is presented in images on the websites of the case companies. The following Section will focus on the groups of spokespersons found in the images providing signifiers for each group, thus answering the second research question.

5.2 The visual spokespersons used in the narrative images

The second research question addressed the visual spokespersons that multinational pharmaceutical companies use in images on their websites. The literature review outlined six groups of spokespersons that are commonly discussed in the field of academic research: celebrities, chief executive officers (CEOs), consumers, employees, experts and spokescharacters (e.g. Limbu et al. 2012, p. 25; Fill, 2009, p. 509; Stafford et al., 2002, p. 18; Friedman & Friedman, 1979, p. 63). Spokescharacters were excluded from the list to start with, as the focus of the study was on human characters in images.

Four distinct groups of spokespersons emerged through the study: consumers, employees, experts and a group, which has not been discussed in marketing communication literature, business professionals. From the spokespersons found in the literature two groups were not represented in the images: celebrities and CEOs. The absence of celebrities as visual spokespersons in images may be down to their relative expensiveness, which drives pharmaceutical companies to use them in messages through channels, which approach the consumers, instead of using them on corporate websites, which require proactivity from the consumer's part. For CEOs to stand out from the other spokespersons this would necessitate an almost celebrity-like status for them. As spokespersons in images are dependent on visual cues, the viewers would need to be able to recognise the CEO by facial features, hair or posture to be able to distinguish him/her from the other groups of spokespersons. If this is not the case, then the website visitor would require a combination of image and text to be able to recognise a CEO spokesperson. As this study focused on pure images without textual information, no figures could therefore be categorised as CEO spokespersons. Next the spokespersons found in the images will be discussed individually in more detail with an

emphasis on their signifiers and their semiotic meaning. These results are also presented in Table 30.

Table 30: Visual spokespersons and their signifiers

<i>GROUP</i>	<i>CONSUMER</i>	<i>EMPLOYEE</i>	<i>EXPERT</i>	<i>BUSINESS PROFESSIONAL</i>
Signifiers	<ul style="list-style-type: none"> • Casual clothing • Non-pharmaceutical setting • Adult/child • Public/ far personal distance • In a group of five or more figures • Gaze into distance or at a figure • Not a focal point • Goal 	<ul style="list-style-type: none"> • Work clothing • Formal-pharmaceutical setting • Adult • Far personal distance • Alone • Gaze at an object • Focal point • Actor 	<ul style="list-style-type: none"> • Work clothing • Formal-pharmaceutical setting • Adult • Far personal distance • With one other figure • Gaze at an object • Focal point • Actor 	<ul style="list-style-type: none"> • Smart clothing • Formal-non-pharmaceutical setting • Adult • Public distance • In a group of four or more figures • Gaze at a figure • Not a focal point • Actor

Consumers formed the largest group of visual spokespersons found in the images investigated covering 53.3 % of all figures. The group was signified by casual clothing (77.9 %) but appeared in all four settings, although most commonly in non-pharmaceutical ones (86.9 %). The most common combination of settings for consumers was informal-non-pharmaceutical settings (67.5 %). The most of the consumers were either depicted as adults (48.1 %) or children (35.1 %) and were commonly seen either in groups of five or more figures (40.4 %) or together with one other figure (31.1 %). The social distance used in images portraying consumer spokespersons was most commonly either public (38.8 %) or far personal (30.6 %). In the images presenting consumer spokespersons, gaze was often used to create engagement between figures in the image (36.2 %) or it was directed towards the distance (36.5 %). Consumer spokespersons were more often not the focal point of images (63.4 %) and were mostly depicted as the goals of actions (57.3 %).

Business professionals were the second largest group of visual spokespersons with a share of 20.7 % of the figures in images studied. The signifiers of this group of spokespersons were smart clothing (98.1 %) and formal-non-pharmaceutical setting (90.4 %). The vast majority of business professionals depicted

were adults (83.7 %) while the rest were young adults (16.3 %). Business professionals were most often shown in groups of four or more figures (with a combined total of 68.3 %) and as a result were mostly depicted at a public distance (64.4 %). Gaze was most often directed at other figures (42.0 %) creating engagement between the figures. Business professionals were more often not presented as the focal point of images (62.5 %) but were more often actors (53.2 %) rather than goals. Business professionals were more often compared to the other groups of spokespersons represented by male figures (65.4 %). The use of business professionals in images was also more focused on particular sections on the websites compared to the other groups of spokespersons. The vast majority of business professionals were found on two sections examined: Sustainability (44.2 %) and About us (40.4 %). The use of business professionals in images also varied between the case companies with Novartis and Pfizer's images featuring 29.5 % and 29.0 % of business professionals respectively but Orion and Sanofi's only 10.7 % and 6.5 % respectively.

Employees formed the third largest group of visual spokespersons in the images studied with a share of 18.5 %. Employees were signified by work clothing (87.1 %) and a formal-pharmaceutical setting (76.3 %). Employees were most often adult figures (84.3 %) but some young adults were also present (15.7 %). Employee spokespersons were most often shown at a far personal distance (41.9 %) and were often alone (37.6 %) or with one other figure in the images (25.8 %). The gaze of employees was mostly fixed at an inanimate object in an image (62.5 %). The majority of employees were depicted as the focal point (59.1 %) and as an actor in the image (84.0 %).

Experts were the smallest group of visual spokespersons in the images with a share of 7.6 %. Experts were only depicted in formal settings and in the vast majority of cases it was a formal-pharmaceutical setting (92.1 %). The group was also signified by work clothing (92.1 %). Almost all experts were depicted as adults (97.4 %) and shown at a far personal distance (42.1 %). Expert spokespersons were most often shown in an image with one other figure (36.8 %) directing their gaze either at the figure (41.2 %) or at an inanimate object in the image (58.8 %). Experts were most often shown as the focal point (55.3 %) and as the actor in an image (87.5 %). Unlike the other groups of visual spokespersons images containing expert figures were most

often placed at the top of a web page (47.4 %) suggesting that the informational value of such images is considered higher by companies than that of images containing other visual spokespersons.

The existence and proportion of different spokespersons in images on the websites may be a reference to the target audience of the companies' websites. Consumers were the largest group of visual spokespersons across the companies, websites and sections, with the exception of Orion, whose images featured employees just more than consumers (41.7 % and 39.8 % respectively). The use of the other spokesperson groups, however, varied significantly between these variables. Novartis and Pfizer showed tendency towards the use of business professionals (29.5 % and 29.0 % respectively), whereas Sanofi had the greatest share of experts, which although was still relatively small (13.1 %). The home country websites had the greatest share of business professionals (27.4 %), whereas the Chinese localised website utilised employees to the greatest extent (29.5 %). Employees were the most represented on the homepages (28.1 %) and the Research & Development –section (30.4 %), experts on the Products & Services –section (21.7 %) and business professionals on the About us –section (34.7 %). These differences would suggest that different visual spokespersons are used to communicate different types of messages, and potentially to different groups of target audiences.

The use of narrative images of consumers can be seen as justified across the various companies, websites and sections because consumers are the end users of pharmaceutical products. Following on from the conclusion by Whittler and Spira (2002) that the perceived similarity between spokespersons and the viewer is a significant factor in ad effectiveness, the spread of images of consumers would suggest that all case companies see it as a relevant target audience for their websites across the five sections investigated in this research. Furthermore, the images of satisfied end users is likely to have a positive impact on other target audiences as well.

The use of employees in narrative images is also reasonable as they communicate about the operations of the company. The homepage and the Research & Development –section could, therefore, be seen as logical choices for such images, as the homepage introduces the visitor to the website and the employees are in a key role in the research and development processes of pharmaceutical companies. Two

interesting discrepancies can be noted from the findings in terms of the use of employees in images. First of these is the relatively small shares of employees on Novartis and Sanofi's websites (10.5 % and 9.3 % respectively). The reasons for the small shares of employees in images on these websites is not as clear as it could, for example, be an implication of different communicative targets or a result of cultural differences. With the two highest shares of consumers in images in the reference group of the four case companies (Novartis 55.5 % and Sanofi 71.0 %) it would seem that the companies want their images to communicate the outcome of their products, namely better health, rather than the process of achieving it. The second notable discrepancy would, however, suggest that some element of cultural differences might be inherent. This is the high share of employees used on the Chinese localised websites compared to the global and home country websites (29.5 %, 19.8 % and 18.8 % respectively). To find better evidence of the reasons behind these variations further research into the matter would therefore be necessary.

The use of expert figures in narrative images was relatively low yet stable across the companies, websites and sections. A visible peak in their use, however, could be seen in the context of the Products & Services –section, where 21.7 % of all figures were categorised as experts. As experts, in the case of this study doctors and pharmacists, represent the pharmaceutical professionals, who have the opportunity to deal with the end users directly, this peak can be deemed reasonable. Pharmaceutical companies themselves are unable to provide their products and services to consumers directly because of legal restrictions and regulations, which is why the existence of images where these groups of middlemen are visible is justified.

The use of business professionals in the images would suggest that the pharmaceutical companies want to remind the website visitors that despite their aim for greater purposes, such as improving health, they are still viable businesses at heart. If this were the case, it would then be reasonable to assume that the business professional spokespersons are placed in images targeted towards financial and business audiences, such as current and potential investors or business partners. The placing of these images across the websites shows some support for this assumption, as the greatest shares of images with business professionals can be found in the About us- (34.7 %) and Sustainability-sections (20.4 %), which tend to be of particular interest to investors and

business partners. Interestingly, however, the use of business professionals in images is the most prominent on the home country localised websites of the case companies (27.4 % compared to 17.9 % on the global and 19.2 % on the Chinese localised website). If business professionals were only used in images to communicate to investors and business partners, this would suggest that the companies considered their home country website as the channel of choice to communicate to them, something that is highly unlikely in the case of multinational companies with global investors and partners. Furthermore, there are major discrepancies between the companies in terms of the use of business professionals in images with the spokespersons taking up a share of 29.5 % and 29.0 % of figures in images on Novartis and Pfizer's websites respectively, whereas Orion and Sanofi are far behind with shares of 10.7 % and 6.5 % respectively. The communicative purpose and meaning of business professionals as visual spokespersons would, therefore, require further research.

This section presented the spokesperson groups found in the images studied thus providing an answer to research question 2. The section also highlighted the signifiers and notable differences between the spokespersons. Section 5.3 will follow in line of this theme and address the third research question on the transfer of credibility through the different visual spokesperson. In addition, the Section will further investigate the reasoning behind the use of the various groups of spokespersons in images on websites of multinational pharmaceutical companies.

5.3 Source credibility effect in the narrative images

This section discusses the findings of the study in view of the second research question presented in Section 1.2 addressing the concept of source credibility and considers how well the visual spokespersons used in the images studied enable the transfer of credibility to the visual messages. The section will be divided into the four groups of visual spokespersons discussed in the previous section: consumers, business professionals, employees and experts. These groups will be reflected on the dimensions of source credibility found in the literature: expertise, trustworthiness and attractiveness

(Clow et al., 2006; Lefferty et al., 2002; Ohanian, 1991). Furthermore, the personal motives, as suggested by Fill (2009, p. 507) will be discussed.

Consumer spokespersons represent typical users of the product and may be viewed as highly attractive to actual consumers due to their perceived similarity to them. Consumer spokespersons have no expert knowledge of the products they are endorsing but speak from their own experience as an actual consumer might do to their friend or family member. The actual consumers can therefore relate to consumer spokespersons, which may increase their trustworthiness. For this reason the personal motives of consumer spokespersons may also be deemed as low. Due to their lack of expertise, however, it could be argued that consumer spokespersons are more successful in communicating about the less risky over-the-counter products than prescription-based medicinal products, which may often cause more severe side effects and be more expensive as well.

Employees are likely to be considered high on expertise, as through their education and experience they possess better knowledge of the pharmaceutical products compared to consumers. Their trustworthiness, however, may be seen as compromised by their personal motives to support their employer. Employee spokespersons still remain a crucial part in communicating about the operations of the pharmaceutical company and tend to be effective when communicating about the employer brand. For these reasons employee spokespersons could be deemed as especially effective in Careers-sections of websites, which mainly target potential job applicants. Employees may, however, be deemed as attractive on other sections of websites as well, as their work in creating cures and preventive measures for illnesses is commonly considered valuable.

It remains unclear whether or not images with business professionals are used to communicate to consumers or to other potential target audiences of the websites such as current and potential investors or business partners. In order to evaluate the source credibility of business professionals as visual spokespersons it is, however, necessary to distinguish a target group for them to use as a reference point for the analysis.

An investor or a business partner could relate a business professional spokesperson to an employee spokesperson, as the business professionals could be seen

as company employees, who are responsible for the day-to-day running of the pharmaceutical business rather than the development, testing and analysis of drugs. A business professional could therefore be seen as a highly educated corporate professional, thus possessing a high level of expertise. As a company employee, however, the personal motives of endorsing one's employer could be seen to undermine the visual spokesperson's trustworthiness. However, the perceived similar background of the investor or business partner and the business professional spokesperson could lead to high perceived levels of attractiveness.

For a consumer, the business professional spokesperson could represent an upper-class consumer. In such a case the expertise of the spokesperson would be deemed as low, as the business professional would possess no greater knowledge than the consumer him/herself of the products. The trustworthiness of the business professional might, however, be perceived as high if the spokesperson was considered to lack any personal motives for communicating about the pharmaceutical company. The attractiveness of the business professional as an upper-class consumer can, however, be seen as two-folded. According to Whittler and Spira (2002) the perceived similarity of the spokesperson and the viewer has a positive impact on the perception of an advert. If the viewer considers him/herself to belong to the same class, they are likely to consider the spokesperson as attractive. However, if the viewer sees him/herself as a member of a lower class, it may result in unfavourable opinions on the visual message.

The low share of expert spokespersons in the narrative images (7.6 %) could be deemed as somewhat of a surprise, as they after all represent the people who prescribe medicinal products to consumers or the people who the consumers buy the products from. As their name suggests, expert spokespersons are logically high the expertise dimension. This stems from superior knowledge compared to the website visitor that is gained through experience, study or training (Limbu et al., 2012, p. 25; Fill, 2009, p. 509; Friedman & Friedman, 1979, p. 63). The perception of expertise is often linked to the trustworthiness of a spokesperson because of the perception of superior knowledge. In the context of this study, in which the group of experts consists of doctors and pharmacists, the professional ethics of the depicted spokespersons are also likely to result in a high level of trustworthiness perceived by the website visitors. The attractiveness of expert spokespersons is case specific, and has been shown to be

subservient to the level of trustworthiness possessed by a spokesperson (Fill, 2009, p. 509). It could therefore be argued that the source credibility of expert spokespersons is not dependent on the physical attractiveness of the expert. These factors would support the transfer of credibility from the expert spokesperson into the visual message communicated by a pharmaceutical company. Furthermore, it has been suggested in the literature that expert spokespersons are the most suitable to be used in adverts for such products that could cause financial or physical risk to the consumer (Friedman & Friedman, 1979, p. 71). As the price of medicinal products can be high and the use of them is linked to an element of risk in the form of side effects, medicinal products can be seen to qualify both of these statements. Their use in images on the websites of pharmaceutical companies could therefore be seen as justified.

The notion of personal motives is, however, ambiguous for expert spokespersons. Whereas pharmaceutical experts are often trusted without question in real-life situations, the fact that the image is found on a website of a pharmaceutical company may undermine this trust. The efforts that pharmaceutical companies go through to get doctors to prescribe their products have been discussed in the media to a great extent, which could translate to a high level of perceived personal motives. It is therefore possible that website visitors utilise a high level of criticality when decoding visual messages by doctors on websites of pharmaceutical companies, which could limit the effectiveness of using expert spokespersons in visual messages.

Table 31: An analysis of the spokespersons' source credibility

<i>DIMENSION</i>	<i>CONSUMER</i>	<i>EMPLOYEE</i>	<i>EXPERT</i>	<i>BUSINESS</i>
				<i>PROFESSIONAL</i> <i>Consumer/Employee</i>
Expertise	Low	High	High	Low/ High
Trustworthiness	High	Low	Either	High/ Low
Attractiveness	High	High	High	Either/ High
Lack of personal motives	High	Low	Either	High/ Low

As seen in Table 31, which summarises the analysis of the source credibility of the four spokesperson groups found through the study, each visual spokesperson contains personal strengths as well as weaknesses. As suggested by Tom et al. (1992, p. 48) it is crucial to match the spokesperson to the message that is to be communicated and take into account the different target audiences of the website and their differing views on the credibility of the various visual spokespersons.

5.4 Localised vs. globalised elements in the narrative images

The fourth research question concerned the extent to which visual elements were globalised or localised in the images on websites of pharmaceutical companies. The aim amongst multinational companies tends to be towards the saving of resources and the use of standard globalised communication whenever deemed suitable. Localisation and adaption of communication efforts into the target market has, however, been shown to result in increased rates of visitor satisfaction and higher potential for visitors to remain longer on the website (Luna et al., 2002; Cyr et al., 2009). An (2007) notes that many global brands have opted for a so-called glocalisation strategy, which refers to localised content with globalised access. This Section will discuss the research findings in terms of their localisation or globalisation across the global corporate websites as well as the localised home country and Chinese websites of the case companies. The discussion is divided into three parts: first any general notions regarding the images will be presented followed by the discussion on visual elements at the rank of work according to the analytical framework. Finally, the globalised and localised elements at the rank of figure will be discussed.

Looking at the research results by website presented in Tables 5, 7 and 8 there are interesting observations to be made. Firstly, looking at the numbers of images on the three categories of websites it is clear that the Chinese localised website features much less images (12.8 %) compared to the almost equal shares of the global and the home country localised website (44.3 % and 42.9 % respectively). It would therefore seem that the Chinese localised websites are indeed localised in terms of the means of communication. Although it may hold valid that pharmaceutical companies deem visual

communication through images less important in the Chinese market, it is also possible that the companies merely feel less confident to communicate through images to the Chinese audience. Either way, it would seem justified to say that pharmaceutical companies feel the need to localise their visual communication through images to the Chinese market, as they judge the images used on the global and home country localised websites unsuitable for this market. This is also evident when examining the reuse rates of the images found on the three types of websites. As stated in Section 4.1 presenting the general findings of the study, none of the images used on the global or the home country websites were duplicated on the Chinese websites.

From Table 7 it is evident that the four case companies distribute varying levels of importance to the three websites. Whereas Orion (54.0 %) and Sanofi (47.8 %) have placed the greatest number of images on their global websites, Novartis opted for their home country website (50.9 %). The Pfizer.com-website included 78.9 % of all images on the Pfizer websites examined. For all but one company (Sanofi: 32.6 %), the Chinese localised website features the smallest share of images (Novartis: 13.6 %, Orion: 2.3 %, Pfizer: 21.1 %). This shows that visual communication in the pharmaceutical industry has variation not only in terms of the target markets but also by company. One should therefore take greater care when applying the findings of this study to other pharmaceutical companies.

Table 8 presented the frequency of narrative images on the global, home country and Chinese websites by website section. The extent of deviation between the three categories of websites varies. For example, each category features a relatively similar share of narrative images on their About us –section (Global: 26.8 %, Home country: 35.8 % and Chinese: 31.8 %) whereas the Products & Services- (Global: 7.8 %, Home country: 6.1 % and Chinese: 25.0 %) and Sustainability-sections (Global: 36.6 %, Home country: 40.5 % and Chinese: 11.4 %) display greater variance. It would therefore seem that the need for visual communication is perceived differently within different target markets by pharmaceutical companies resulting in a visual emphasis of certain sections. Judging by the figures in Table 8, this need seems to be perceived as relatively similar in the global and home country websites, which both exhibit similar visual penetration of images in the sections. Sustainability- and About us –sections hold the largest shares of images for both categories of websites with shares of 36.6 % and

26.8 % respectively on the global websites and shares of 40.5 % and 35.8 % respectively on the home country websites. The Chinese localised websites, however, has the most images on its About us- and Products & Services –sections (31.8 % and 25.0 % respectively).

Moving onto the findings at the rank of work by the interpersonal metafunction presented in Table 12, it is interesting to see that the use of the different levels of modality vary between the three categories of websites. The home country websites are the only ones presenting more high than low modality images (58.1 % and 41.9 % respectively). The global websites depict almost equal shares of 49.7 % of high and 50.3 % of low modality images, whereas the Chinese website has a more prominent tendency towards low modality images (54.5 %). It would therefore seem that pharmaceutical companies opt for a greater level of credibility on the home country website compared to the other two website categories.

In terms of the image settings both the global and the home country websites show a tendency towards informal-non-pharmaceutical images (41.2 % and 42.6 % respectively), whereas the Chinese website contains the greatest share of formal-pharmaceutical images (54.5 %). This may be seen to provide further evidence to the assumption that pharmaceutical companies are unsure of how to use images for communication within the Chinese market, which results in a greater use of images featuring settings, which are traditionally related to the pharmaceutical industry.

The findings for the social distance used in the narrative images shown in Table 12 suggests that the pharmaceutical companies want to display familiarity on the global and Chinese websites, whereas they opt for displaying their membership of the community on the home country websites. This assumption can be drawn from the preference for the far personal distance on the global and Chinese websites (35.3 % and 40.9 % respectively) and that for the public distance on the home country website (33.8 %).

All of the three categories of websites feature a majority of positive affect emotional appeals (Global: 61.2 %, Home country: 79.3 % and Chinese: 85.7 %). This visual element seems to therefore be standardised globally. The number of narrative images without clear appraisal or emotional appeals, however, was high in all three categories (Global: 68.0 %, Home country: 80.3 % and Chinese: 68.2 %). It would

therefore seem that images without clearly defined feeling are preferred by pharmaceutical companies, but in images, which depict feelings, the positive affect appeal is favoured. Maughan et al. (2007) found in their eye tracking study of outdoor poster advertising that posters depicting images were looked at for longer by research participants. This could suggest that emotional appeals in images in other channels would gain more exposure to viewer's attention as well, and therefore the greater use of emotional appeals in images could be recommended within the pharmaceutical industry as well.

Looking at the research findings on the compositional metafunction at the rank of work as seen in Table 24, it is clear that the two localised websites seem to have been standardised in terms of the positioning of the images on the web pages. On both categories of websites the middle of the page is preferred as it features a share of 59.5 % of images on the home country website and a share of 59.1 % on the Chinese localised websites. The top of the page is, however, preferred on the global websites with a share of 47.1 %. As the proportions for the top of the page for the home country websites and the Chinese websites equal 32.4 % and 36.4 % respectively, this may be seen as an adapted element for the global website.

The number of figures presented in the narrative images follows in line with findings on social distances already discussed in this section. The global websites as well as the Chinese localised websites show a clear tendency towards fewer figures in images with one figure being the most popular alternative on the Chinese websites (50.0 %) and two figures on the global websites (35.0 %). The home country websites' preference for the public distance is visible in the share of five or more figures in images (27.9 %), however, having one or two figures had also the same or similar share with 27.9 % and 27.1 % respectively.

Moving onto the analysis of the results by figure the gaze of the figures was examined at the interpersonal visual element of the framework. From the results presented in Table 13 a common trend is clearly visible across the three categories of websites: gazes at another figure, into the distance or at an inanimate object each gained a significantly larger share compared to the other gazes in all three categories. This suggests that gaze is to some extent globalised among pharmaceutical websites targeting different audiences. Minor variation does, however, occur. Whereas the global websites

and the Chinese localised websites feature most commonly figures gazing at an object (36.8 % and 39.4 % respectively), the home country websites feature mostly figures gazing at other figures (38.4 %).

The results on the representational metafunction by figure are presented in Table 19. As is visible in the table, male figures were preferred on all categories of websites. However, whereas the global and home country websites share almost equal proportions of 54.4 % and 55.1 % of male figures, the Chinese localised website contains a much higher share of 73.8 %. Despite the other websites also featuring a majority of male figures, the much higher percentage on the Chinese website suggests that there is some element of localisation in the element. This is also evident in the comparison by company, as Orion is the only company to have a majority of female figures (55.7 %).

Adult figures are preferred on all three categories of websites with the age group achieving a share of 62.8 % of figures on the global websites, 65.0 % of those on the home country websites and as high as 73.3 % of those on the Chinese websites. The websites are also unanimous in the lack of elderly figures on their web pages (Global: 3.8 %, Home country: 3.6 % and Chinese: 4.0 %). It would therefore seem that the age groups used in the images are to a large extent standardised across websites to different target audiences. Small discrepancies do, however, exist in terms of the other age groups with global websites featuring more children (24.4 %) compared to the localised websites (Home country: 16.6 % and Chinese: 16.0 %), whereas the home country websites depicting more young adult figures (14.8 % compared to 9.0 % on global websites and 6.7 % on Chinese websites).

The four groups of visual spokespersons identified through the study were all found across the three categories of websites. Consumers were the biggest group on all three categories even though the difference between the highest share (Global: 54.0 %) and the lowest share (Chinese: 39.7 %) is notable. The low share of consumers on the Chinese website enabled a more balanced division of figures into the spokesperson groups, whereas the global and home country websites were heavily tilted towards the consumer spokesperson groups. For this reason, the Chinese websites featured the greatest share of employees (29.5 %) and experts (11.5 %), however the home country websites had the greatest preference towards business professionals (27.4 %). It is

therefore fair to say that the overall spokesperson roles that are featured in images on the websites of multinational pharmaceutical companies are highly globalised, whereas the extent of their use is localised to the needs of the target market.

As discussed in Section 5.2 on the signifiers of the visual spokespersons, clothing emerged as a key indicator of a figure's role in an image. The results on clothing, therefore, follow in line with those of the results on the visual spokesperson groups. Featuring the greatest shares of employees and experts, the Chinese websites also have the highest proportion of work clothing (37.2 %). The home country websites feature the greatest share of smart-clothed figures (35.9 %), which is a result of the high share of business professionals on the websites. The greatest share of casual clothing can be found on the global websites (48.4 %), which also had the highest share of consumer spokespersons. Components, which appear to be standard across the websites are the share of figures, whose clothes have been cropped out of the image (Global: 5.4 %, Home country: 7.2 % and Chinese: 6.4 %) and that of those, who appear in the images as naked (Global: 0.3 %, Home country: 0.0 % and Chinese 0.0 %).

In terms of the compositional function at the rank of figure the visual elements seem to be highly globalised across the various websites, as is seen on table 25. Each category of websites features the greatest share of figures at the centre of an image (Global: 38.7 %, Home country: 38.6 % and Chinese 44.9 %) and also has an evident preference for figures aligned along the vertical axis (Global: 70.3 %, Home country: 71.1 % and Chinese 66.7 %).

To conclude, this section has discussed the visual elements outlined in the analytical framework for this study in relation to their globalisation or localisation across the global websites as well as the home country and Chinese localised websites of the four case companies. The discussion of this Section is summarised in Table 32, which provides a coherent response to research question four, which it set out to answer. The visual elements are organised in the table according to the websites, if not all, which share the same feature.

Table 32: Globalised and localised visual elements in the narrative images

	<i>GLOBALISED</i>	<i>LOCALISED</i>
General	<ul style="list-style-type: none"> • Global & Home country: the number of images • Global & Home country: the images to some extent (re-use) 	<ul style="list-style-type: none"> • Chinese: the number of images • All: Emphasis on different sections of the websites
Work	<ul style="list-style-type: none"> • Global & Home country: informal-non-pharmaceutical setting • Global & Chinese: far personal distance • All: lack of emotional appeals (positive affect in those that feature emotion) • Home country & Chinese: middle of the web page 	<ul style="list-style-type: none"> • Home country: high modality • Chinese: low modality • Chinese: formal-pharmaceutical setting • Home country: public distance • Global: top of the web page • All: number of figures
Figure	<ul style="list-style-type: none"> • Global & Chinese: gaze at an object • All: male figures • All: adult figures, lack of elderly figures • All: emphasis on consumers • All: lack of figures with cropped-out or no clothing • All: positioning of figures in an image • All: alignment to the vertical axis 	<ul style="list-style-type: none"> • Home country: gaze at a figure • Chinese: the greater proportion of male figures • Chinese: employees and experts • Home country: business professionals

As is evident from the table both localised and globalised visual elements were found through the analysis. The visual elements at the rank of figure were more likely to be globally standardised compared to general elements or those at the rank of work. This suggests that the persons involved in health-care related situations are considered universally adaptable by multinational pharmaceutical companies. The findings on the global websites were almost without exception in line with one of the localised websites. The only adapted element on the global websites was the tendency towards placing images at the top of web pages. The two localised websites, home country and Chinese, included greater extent of adaptation suggesting that pharmaceutical companies feel the need to localise their online visual communication.

6. Conclusion

This chapter concludes the thesis by summarizing the study and its findings in terms of the research questions. The practical implications of the study will be considered both for academics and practitioners dealing with visual communication issues. A section is also provided for the critical analysis of the study in terms of its limitations. Finally, the chapter will provide suggestions for further research following on from the research conducted for this study.

6.1 Research summary

The aim of the present study was to examine the visual communication of four multinational pharmaceutical companies, Novartis, Orion, Pfizer and Sanofi, through images on their global corporate website as well as two localised websites: their home country and China. The main emphasis of the study was on human roles depicted in the images and whether or not these roles could enable the source credibility effect commonly researched in marketing communication. The study also investigated whether pharmaceutical companies globalised visual elements across the three websites or whether the elements were localised to the target markets. The research questions presented for the study were as follows:

1. How is the pharmaceutical industry presented in images on the websites of multinational pharmaceutical companies?
2. What kinds of visual spokespersons do multinational pharmaceutical companies use in images on their websites?
3. How do the visual spokespersons used on the websites of multinational pharmaceutical companies enable the source credibility effect to take place?

4. Which visual elements are globalised and which ones localised in the images of multinational pharmaceutical companies found on their corporate, home country and Chinese localised website?

The study utilised the methods of semiotic analysis and content analysis to analyse the meaning created in the images found on the websites and to quantify these findings for quantitative analysis. The analytical framework used for the study combined elements of two well-known frameworks of visual language, one by Kress and van Leeuwen (2006) and one by O'Toole (1994). The main findings of the analysis will next be summarised in terms of the research questions of the study.

1. How is the pharmaceutical industry presented in images on the websites of multinational pharmaceutical companies?

Four statements were made about the pharmaceutical industry, based on the analysis of the images:

1. In narrative images high modality is used to enhance the credibility of visual messages in such sections, which come under greater scrutiny by stakeholder groups
2. Narrative images depict the whole lifecycle of pharmaceutical products from development to consumption and resulting health with notable absence of the illnesses, which are being treated
3. Narrative images show healthcare-related situations with a happy, healthy, direct and inviting atmosphere, in which the figures are already familiar to the viewer
4. Narrative images present the pharmaceutical industry as a male-dominated field

It could therefore be concluded that the representation of the pharmaceutical industry in narrative images on the websites of multinational pharmaceutical companies is not an

entirely comprehensive. Relating these findings back to the fair balance view exposed by the FDA for the US pharmaceutical market, the risks of medicinal products are far less represented in the images on the websites compared to the health benefits of the products.

2. What kinds of visual spokespersons do multinational pharmaceutical companies use in images on their websites?

Four distinct groups of visual spokespersons were found through the analysis: consumers, employees, experts and business professionals. The clothing of the figures as well as the setting, in which the figures are depicted, proved to be the key signifiers of the different groups of visual spokespersons. The way in which these key signifiers were established among the visual spokesperson groups will next be outlined as well as other individual signifiers identified for the groups.

Consumers were signified by casual clothing and appeared most often in non-pharmaceutical settings. The consumer spokespersons were either adults or children pictured from a public or far personal distance. Consumers were most often shown in groups of five or more figures and gazing at another figure in the image. Consumers were more often not the focal point of images and were more often depicted as goals of action rather than as actors themselves.

Employee spokespersons appeared in formal-pharmaceutical settings wearing appropriate work clothing. Employees were depicted as adults from a far personal distance. Employee spokespersons were often depicted on their own gazing at an object in the image. The spokespersons were more often than not the focal point of images and were portrayed as actors.

Experts shared multiple signifiers with the employee spokespersons. Experts were also most often found wearing work clothing in formal-pharmaceutical settings. The spokespersons were depicted as adults at a far personal distance gazing at an object in the image. Like employee spokespersons, experts were also often actors and focal points of images. Unlike employees, however, expert spokespersons were most

commonly pictured with one other figure. Experts were also signified by other elements in an image, such as a medical object (for example a stethoscope).

Business professionals were shown in formal-non-pharmaceutical settings. The group was also signified by smart clothing appropriate for an office-worker. Business professionals were adults shown at a public distance. As a result the spokespersons were most commonly shown in groups of four or more figures. Their gaze was often directed towards another figure, and even though the business professionals were more often not the focal point of images, they were still more often depicted as the actors in them.

3. How do the visual spokespersons used on the websites of multinational pharmaceutical companies enable the source credibility effect to take place?

Source credibility has been commonly divided into three dimensions: expertise, trustworthiness and attractiveness (e.g. Clow et al., 2006; Lefferty et al., 2002; Ohanian, 1991). These three dimensions were considered in the present study to examine the potential for the source credibility effect to take place and the visual spokesperson to transfer credibility into the visual message by the pharmaceutical company. Furthermore, the personal motives of the visual spokespersons were also analysed, especially in relation to the trustworthiness dimension.

All four groups of visual spokespersons could be deemed to enable the source credibility effect, although with different credentials. The consumer spokespersons are commonly deemed low on expertise but high on trustworthiness and attractiveness due to their similarity to consumers visiting the websites. The lack of personal motives also contributed to the high trustworthiness of the consumer spokespersons.

The employee spokespersons have better knowledge on the pharmaceutical industry and its products than consumers visiting the websites. They can therefore be argued to have high expertise. Their trustworthiness may, however, be compromised by their perceived personal motives to support their employer. Due to the

valuable nature of their work as curers of illnesses, employee spokespersons may still be considered as attractive to website visitors.

Similarly to the employee spokespersons, the expert spokespersons are also high on expertise and on attractiveness. A crucial difference, however, is that as an external party to the pharmaceutical companies, the expert spokespersons are often considered as highly trustworthy. This argument may, however, be compromised by perceived personal motives arising from the high media attention that has been given to the ways pharmaceutical companies aim to influence doctors and pharmacists to prescribe and sell their products. If the personal motives of an expert spokesperson are considered as high, the trustworthiness achieved through their position may erode.

The business professional spokespersons can take the form of two characters depending on the status of the website visitor. For a consumer visiting the website, the business professionals may represent an upper class consumer. The source credibility of the business professional would then follow in line with that of a consumer spokesperson (low expertise, high trustworthiness, lack of personal motives) with the exception of the attractiveness dimension. If the consumer perceives him/herself as upper class as well, the perceived similarity to the business professional could result in high spokesperson attractiveness. However, if the visitor considers him/herself to belong to another class, the attractiveness of the business professional is likely to be lower.

The second scenario is posed by a current or potential investor or business partner visiting the website. In this case the visitor could reflect the business professional spokesperson to an employee working in the offices of the pharmaceutical company. As a result, the business professional spokesperson would follow in line with the credibility of the employee in that it is high on expertise and attractiveness, but low on trustworthiness due to high levels of personal motives.

4. Which visual elements are globalised and which ones localised in the images of multinational pharmaceutical companies found on their corporate, home country and Chinese localised website?

Both globalised and localised visual elements were found among those investigated through this study. The majority of the elements at the rank of figure, such as gender, age, spokespersons and alignment, were globalised across the global websites as well as the localised home country and Chinese websites. In addition, the appraisal of images was also globally standardised at the rank of work, with all categories showing a lack of emotional appeals and a tendency for positive affect in images containing feelings.

What is noteworthy from the findings on the globalised and localised visual elements is the tendency towards globalisation on the global websites. Only one visual element could be identified as localised for the global audiences. This would suggest that the global website is used as a visual reference point when creating localised websites, or vice versa that the changes to the localised websites are copied and pasted onto the global website as well. The localised websites featured a higher level of localisation suggesting that the pharmaceutical companies recognise the importance for adapting visual elements to target audiences to some extent.

6.2 Practical implications

The present study showcases implications both to academics interested in visual communication and the pharmaceutical industry as well as to practitioners operating within the industry in question. In academic terms, the study added to the pool of academic research on the pharmaceutical industry with a novel angle by investigating visual communication through images, and it has also provided valuable knowledge on how the industry is represented in the images as well as how the companies utilise images for online visual communication. Furthermore, the study adopted the concept of source credibility effect from marketing communication to visual communication providing evidence on the argument that visual spokespersons can transfer credibility to a message without the inclusion of textual elements.

For the pharmaceutical industry the study presented valid arguments why companies should pay attention to how and what they communicate through images on their websites. In addition recommendations and insights were also provided to

practitioners on how to improve online visual communication to better engage and inform website visitors.

6.3 Limitations of the study

As any research project would, the present study also included limitations. As the limitations are inherent in the research methods chosen for the study they were known by the researcher already in the beginning of the research project and thus their impact could be limited to the absolute minimum whenever possible.

As semiotic analysis relies on the informed knowledge and training of the coder, it is commonly conducted with several coders verifying the findings of the others. As the present study was coded by a sole researcher, this may have led to shortcomings. To minimise these the coding sheets were included in the thesis as well as detailed descriptions of the basis of the coding to enable future verification of the coding.

The study examined the visual elements in images on the websites of four multinational pharmaceutical companies. A total of 257 images and 503 figures were analysed from the 11 websites chosen for this study. Despite the large numbers of images, figures and websites analysed, the findings cannot be fully generalised into the entire pharmaceutical industry due to the small number of companies examined. The findings do, however, give some indication of how visual communication is used within the pharmaceutical industry.

Next section will give suggestions for further research from the basis of this study. Suggestions have also been made on how the limitations of this study could be prevented in future research projects.

6.4 Suggestions for further research

The present study has highlighted several topics and objectives how the visual communication through images on the websites of multinational pharmaceutical companies could be further researched. A logical next step following on from the present study would be to incorporate members of the target audiences into the research project by investigating the decoding of visual messages and the impact of the visual elements within them. To further the adoption of the source credibility effect into the field of visual communication one could also investigate the impact of visual spokespersons on website visitors within a relevant target group. For a holistic view, a study on what multinational pharmaceutical companies themselves intend to communicate through images on their website would also broaden our knowledge on the topic. Furthermore, to combat some of the limitations of the present study, it could be reiterated with a higher number of case companies, a higher number of different localised websites or with more researchers. New variables, such as the size of the case company, could then be added into the study.

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Appendices
















Appendix 1: The analysis of the narrative images in terms of the website and section















Picture	Picture code	Website:			Section:			Section:		
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
	Novartis1	1								
	Novartis2	1			1			1		
	Novartis3	1						1		
	Novartis4	1					1			
	Novartis5	1					1			
	Novartis6	1					1			
	Novartis7	1					1			
	Novartis8	1					1			
	Novartis9	1					1			
	Novartis10	1					1			
	Novartis11	1					1			
	Novartis12	1					1			
	Novartis13	1					1			
	Novartis14	1	1				1			

















Picture	Picture code	Website:				Section:			Section:	
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
	Novartis15	1				1				
	Novartis16	1				1				
	Novartis17	1				1				
	Novartis18	1				1				
	Novartis19	1							1	
	Novartis20	1							1	
	Novartis21	1							1	
	Novartis22	1							1	
	Novartis23	1							1	
	Novartis24	1							1	
	Novartis25	1							1	













Picture	Picture code	Website:				Section:			Section:	
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
	Novartis26	1							1	
	Novartis27	1							1	
	Novartis28	1		1					1	
	Novartis29	1							1	
	Novartis30	1							1	
	Novartis31	1	1						1	
	Novartis32	1							1	
	Novartis33	1					1			
	Novartis34	1					1			
	Novartis35	1	1				1			
	Novartis36	1					1			
	Novartis37	1					1			










Picture	Picture code	Website:			Section:			Section:		
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
	Novartis38	1				1				
	Novartis39	1				1				
	Novartis40		1		1					
	Novartis41		1		1					
	Novartis42		1		1					
	Novartis43		1		1					
	Novartis44		1			1				
	Novartis45		1			1				
	Novartis46		1			1				
	Novartis47		1			1				
	Novartis48		1			1				
	Novartis49a		1			1				
	Novartis49b		1			1				
	Novartis50		1			1				
	Novartis51		1			1				
	Novartis52		1			1				











Picture	Picture code	Website:			Section:			Section:		
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
	Novartis53	1				1				
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	Novartis55	1				1				
	Novartis56	1				1				
	Novartis57	1				1				
	Novartis58	1				1				
	Novartis59	1				1				
	Novartis60	1				1				
	Novartis61	1				1				
	Novartis62	1						1		
	Novartis63	1						1		
	Novartis64	1						1		
	Novartis65	1							1	
	Novartis66	1							1	
	Novartis67	1							1	








<i>Picture</i>	<i>Picture code</i>	<i>Website: Global</i>	<i>Website: Home</i>	<i>Website: China</i>	<i>Section: Homepage</i>	<i>Section: About us</i>	<i>Section: Research & Development</i>	<i>Section: Products & Services</i>	<i>Section: Sustainability</i>
	Novartis68	1							1
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	Novartis70	1							1
	Novartis71	1							1
	Novartis72	1							1
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	Novartis76	1							1
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Picture	Picture code	Website:			Section:			Section:		
		Global	Home	China	Homepage	About us	& Development	Research	Products & Services	Sustainability
	Novartis82	1								1
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	Novartis84	1								1
	Novartis85	1								1
	Novartis86	1								1
	Novartis87	1								1
	Novartis88	1								1
	Novartis89	1								1
	Novartis90	1								1
	Novartis91	1								1
	Novartis92			1						1
	Novartis93				1					1
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	Novartis95				1				1	
	Novartis96				1				1	
	Novartis97									1



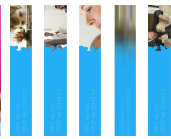





Picture	Picture code	Website:				Section: Research & Development	Section: Products & Services	Section: Sustainability
		Global	Home	China	Homepage			
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	Novartis100			1		1		
	Novartis101			1		1		
	Novartis102			1		1		
	Novartis103			1		1		
	Novartis104			1		1		
	Novartis105			1		1		
	Orion1	1	1			1		
	Orion2	1	1			1		
	Orion3	1	1			1		
	Orion4	1	1			1		












Picture	Picture code	Website:				Section:			Section:		Section:
		Global	Home	China	Homepage	About us	& Development	Research & Services	Products	Sustainability	
	Orion5	1	1			1					
	Orion6	1	1			1					
	Orion7	1	1			1					
	Orion8		1					1			
	Orion9		1						1		
	Orion10a	1	1					1			
	Orion10b										
	Orion11	1	1					1			
	Orion12	1	1					1			








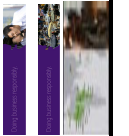



Picture	Picture code	Website:			Section:			Section:			Section:		
		Global	Home	China	Homepage	About us	& Development	Research & Services	Products	Sustainability			
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	Orion15	1	1						1				
	Orion16	1	1						1				
	Orion17	1	1						1				
	Orion18	1							1				
	Orion19	1							1				
	Orion20	1							1				
	Orion21	1							1				
	Orion22	1							1				












Picture	Picture code	Website:				Section:			Section:		
		Global	Home	China	Homepage	About us	& Development	Research	Products	Services	Sustainability
	Orion23	1					1				
	Orion24	1					1				
	Orion25	1					1				
	Orion27	1	1								1
	Orion28	1	1								1
	Orion29	1	1								1
	Orion30	1	1								1
	Orion31	1	1								1
	Orion32	1	1								1
	Orion33	1	1								1












Picture	Picture code	Website:			Section:			Section:		
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
	Orion34	1	1						1	
	Orion35	1	1						1	
	Orion36	1	1						1	
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	Orion39	1	1						1	
	Orion40	1	1						1	
	Orion41	1	1						1	
	Orion42	1	1						1	
	Orion43	1	1						1	
	Orion44	1	1						1	
	Orion45	1	1						1	
	Orion46	1	1						1	
	Orion47	1						1		












Picture	Picture code	Website:				Section:				Section:
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
	Orion48	1							1	
	Orion49	1							1	
	Orion50			1	1					
	Orion51			1			1			
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	Pfizer2	1	1		1					
	Pfizer3	1	1		1					
	Pfizer4	1	1	1				1		
	Pfizer5	1	1					1		
	Pfizer6	1	1					1		
	Pfizer7	1	1					1		
	Pfizer8	1	1					1		
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	Pfizer10	1	1	1					1	
	Pfizer11	1	1						1	
	Pfizer12	1	1						1	





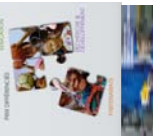





Picture	Picture code	Website:				Section:			Section:	
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
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	Pfizer14	1	1			1				
	Pfizer15	1	1			1				
	Pfizer17	1	1			1				
	Pfizer19	1	1			1				
	Pfizer20	1	1			1				
	Pfizer21	1	1			1				
	Pfizer22	1	1			1				
	Pfizer23	1	1			1				
	Pfizer24	1	1			1				
	Pfizer25	1	1			1				














Picture	Picture code	Website:				Section:			Section:		
		Global	Home	China	Homepage	About us	& Development	Research	Products & Services	Sustainability	
	Pfizer26	1	1			1					
	Pfizer27	1	1			1					
	Pfizer28	1	1			1					
	Pfizer29	1	1					1			
	Pfizer30	1	1					1			
	Pfizer31	1	1					1			
	Pfizer32	1	1					1			
	Pfizer33	1	1					1			
	Pfizer34	1	1							1	
	Pfizer35	1	1							1	
	Pfizer36	1	1	1						1	
	Pfizer37	1	1							1	
	Pfizer38	1	1							1	







Picture	Picture code	Website:					Section:			Section:		
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	Section:	Section:	Section:
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	Pfizer41	1	1									1
	Pfizer42	1	1									1
	Pfizer43	1	1									1
	Pfizer44	1	1									1
	Pfizer45	1	1								1	
	Pfizer46	1	1								1	
	Pfizer47	1	1								1	
	Pfizer48	1	1								1	
	Pfizer49					1		1				
	Pfizer50					1		1				

Picture	Picture code	Website:		Website:		Section:		Section:		Section:	
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Products	Sustainability	
	Pfizer51			1	1						
	Pfizer52			1	1						
	Pfizer53			1			1				
	Pfizer54			1			1				
	Pfizer55			1			1				
	Pfizer56			1			1				
	Pfizer57			1			1			1	
	Sanofi1	1			1						
	Sanofi2	1					1				
	Sanofi3	1					1				
	Sanofi4a	1					1				

Picture	Picture code	Website:				Section:			Section:		
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Products	Sustainability	
	Sanofi4b	1			1						
	Sanofi5	1				1					
	Sanofi6	1				1					
	Sanofi7	1					1				
	Sanofi8	1					1				
	Sanofi9	1					1				
	Sanofi10	1							1		
	Sanofi11	1								1	
	Sanofi12	1								1	
	Sanofi13	1								1	
	Sanofi14	1								1	
	Sanofi15	1								1	
	Sanofi16	1								1	

Picture	Picture code	Website:			Section:			Section:		
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
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	Sanofi18	1							1	
	Sanofi19	1							1	
	Sanofi20	1							1	
	Sanofi23	1							1	
	Sanofi26			1	1					
	Sanofi27			1				1		
	Sanofi28			1				1		
	Sanofi29			1					1	
	Sanofi30			1					1	

Picture	Picture code	Website:			Section:			Section:		
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Products	Sustainability
	Sanofi31			1				1		
	Sanofi32			1				1		
	Sanofi33			1				1		
	Sanofi34			1				1		
	Sanofi35			1				1		
	Sanofi36			1				1		
	Sanofi37			1					1	
	Sanofi38			1						1
	Sanofi39			1						1
	Sanofi40			1						1
	Sanofi42		1						1	
	Sanofi43		1							1
	Sanofi44		1							1

Picture	Picture code	Website:			Section:			Section:		
		Global	Home	China	Homepage	About us	Research & Development	Products & Services	Sustainability	
	Sanofi45		1			1				
	Sanofi47		1						1	
	Sanofi48		1						1	
	Sanofi49		1					1		
	Sanofi50		1					1		
	Sanofi51		1					1		

Appendix 2: The analysis of the narrative images at the rank of work

Picture code	Modality (high/low)	Formal/ informal setting	Pharmaceutical/ Non- pharmaceutical setting	Social distance	Appraisal theory (affect/judgement/ appreciation)	Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)	Number of figures
Novartis1	Low	Informal	Non-pharmaceutical	Intimate	Judgement	Positive	Top	0
Novartis2	Low	Formal	pharmaceutical	Intimate	Affect	Positive	Top	2
Novartis3	Low	Informal	Non-pharmaceutical	Close personal	Affect	Positive	Top	2
Novartis4	Low	Informal	pharmaceutical	Intimate	Affect	Positive	Top	2
Novartis5	Low	Formal	Pharmaceutical	Close personal	Judgement	Positive	Top	3
Novartis6	Low	Formal	Pharmaceutical	Far personal	Judgement	Positive	Top	2
Novartis7	High	Formal	Pharmaceutical	Far personal	Judgement	Positive	Top	1
Novartis8	High	Formal	Non-pharmaceutical	Close personal			Top	1
Novartis9	Low	Formal	Pharmaceutical	Close personal			Top	1
Novartis10	High	Formal	Pharmaceutical	Close personal			Top	2
Novartis11	Low	Informal	Non-pharmaceutical	Close personal	Affect	Positive	Top	2
Novartis12	Low	Formal	Non-pharmaceutical	Public			Top	5 or more
Novartis13	Low	Formal	Pharmaceutical	Intimate			Top	0
Novartis14	Low	Informal	Non-pharmaceutical	Far personal	Affect	Positive	Middle	2
Novartis15	Low	Informal	Non-pharmaceutical	Far personal	Affect	Positive	Top	3
Novartis16	Low	Informal	Non-pharmaceutical	Close personal	Affect	Positive	Top	2
Novartis17	Low	Informal	Non-pharmaceutical	Intimate	Judgement	Positive	Top	0
Novartis18	High	Informal	pharmaceutical	Far personal	Affect	Positive	Top	2
Novartis19	High	Formal	Pharmaceutical	Far personal			Middle	2
Novartis20	High	Formal	Pharmaceutical	Far personal	Judgement	Positive	Middle	2
Novartis21	High	Formal	Non-pharmaceutical	Public	Affect	Positive	Top	4

<i>Picture code</i>	<i>Pharmaceutical/</i>							<i>Emotional appeal (pos/neg)</i>	<i>Positioning of the image (top/middle/bottom)</i>	<i>Number of figures</i>
	<i>Modality (high/low)</i>	<i>Formal/informal setting</i>	<i>Non-pharmaceutical setting</i>	<i>Social distance</i>	<i>Appraisal theory (affect/judgement/appreciation)</i>	<i>Emotional appeal (pos/neg)</i>	<i>Positioning of the image (top/middle/bottom)</i>			
Novartis22	Low	Formal	Pharmaceutical	Close personal			Middle	1		
Novartis23	High	Informal	Non-pharmaceutical	Public	Affect	Positive	Middle	5 or more		
Novartis24	High	Informal	Non-pharmaceutical	Public			Middle	5 or more		
Novartis25	High	Informal	Non-pharmaceutical	Far social			Middle	2		
Novartis26	High	Informal	Non-pharmaceutical	Public	Affect	Positive	Middle	5 or more		
Novartis27	High	Informal	Non-pharmaceutical	Far personal	Judgement	Positive	Bottom	3		
Novartis28	Low	Formal	Non-pharmaceutical	Close personal			Top	3		
Novartis29	Low	Formal	Non-pharmaceutical	Intimate			Top	0		
Novartis30	Low	Formal	Non-pharmaceutical	Close personal			Top	2		
Novartis31	High	Formal	Non-pharmaceutical	Far personal	Affect	Positive	Top	2		
Novartis32	High	Formal	Pharmaceutical	Intimate			Bottom	1		
Novartis33	Low	Formal	Pharmaceutical	Close personal			Top	1		
Novartis34	Low	Informal	Non-pharmaceutical	Far personal	Affect	Positive	Top	2		
Novartis35	Low	Informal	Non-pharmaceutical	Far personal	Affect	Positive	Top	3		
Novartis36	Low	Formal	Pharmaceutical	Far personal			Top	2		
Novartis37	Low	Formal	Pharmaceutical	Far personal			Top	1		
Novartis38	High	Informal	Non-pharmaceutical	Close social	Affect	Positive	Top	4		
Novartis39	Low	Informal	Non-pharmaceutical	Far personal			Top	1		
Novartis40	Low	Formal	Non-pharmaceutical	Close personal	Affect	Positive	Top	1		
Novartis41	Low	Formal	Pharmaceutical	Close personal			Top	1		
Novartis42	Low	Formal	Non-pharmaceutical	Close personal			Top	1		

Picture code	Pharmaceutical/				Appraisal theory (affect/judgement/ appreciation)	Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Non- pharmaceutical setting	Social distance				
Novartis43	High	Formal	Non- pharmaceutical	Far personal		Middle	1	
Novartis44	Low	Informal	Non- pharmaceutical	Close social		Top	3	
Novartis45	Low	Formal	Pharmaceutical	Close social		Middle	2	
Novartis46	High	Formal	Pharmaceutical	Far personal		Middle	1	
Novartis47	Low	Formal	Non- pharmaceutical	Close personal	Affect	Middle	1	
Novartis48	High	Formal	Non- pharmaceutical	Far social		Middle	2	
Novartis49a	High	Formal	Non- pharmaceutical	Far social		Middle	2	
Novartis49b	High	Informal	Non- pharmaceutical	Close personal	Affect	Middle	2	
Novartis50	Low	Informal	Non- pharmaceutical	Far personal	Affect	Middle	2	
Novartis51	High	Formal	Non- pharmaceutical	Public		Middle	5 or more	
Novartis52	High	Informal	Non- pharmaceutical	Public		Middle	5 or more	
Novartis53	High	Formal	Non- pharmaceutical	Public		Middle	5 or more	
Novartis54	High	Formal	Non- pharmaceutical	Public		Middle	5 or more	
Novartis55	High	Formal	Non- pharmaceutical	Public		Middle	5 or more	
Novartis56	High	Formal	Non- pharmaceutical	Public		Middle	5 or more	
Novartis57	High	Informal	Non- pharmaceutical	Public		Bottom	5 or more	
Novartis58	High	Informal	Non- pharmaceutical	Public		Middle	5 or more	
Novartis59	High	Informal	Non- pharmaceutical	Public		Bottom	4	
Novartis59	High	Informal	Non- pharmaceutical	Public		Middle	5 or more	
Novartis60	High	Informal	Non- pharmaceutical	Public		Middle	5 or more	

Picture code	Pharmaceutical/							Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Non- pharmaceutical setting	Social distance	Appraisal theory (affect/judgement/ appreciation)	Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)			
Novartis61	High	Informal	Non-pharmaceutical	Public				Middle	5 or more	
Novartis62	Low	Formal	pharmaceutical	Intimate				Top	1	
Novartis63	High	Formal	Pharmaceutical	Intimate				Middle	1	
Novartis64	High	Informal	pharmaceutical	Close personal	Affect	Positive		Middle	1	
Novartis65	Low	Informal	pharmaceutical	Public	Affect	Positive		Middle	4	
Novartis66	High	Informal	pharmaceutical	Far social	Judgement	Positive		Middle	2	
Novartis67	Low	Formal	Pharmaceutical	Far personal				Middle	1	
Novartis68	Low	Informal	pharmaceutical	Close social				Middle	1	
Novartis69	Low	Informal	pharmaceutical	Far personal	Affect	Positive		Middle	2	
Novartis70	High	Formal	pharmaceutical	Public				Middle	5 or more	
Novartis71	High	Formal	pharmaceutical	Public				Middle	5 or more	
Novartis72	High	Formal	Pharmaceutical	Public				Middle	5 or more	
Novartis73	High	Formal	pharmaceutical	Public				Middle	5 or more	
Novartis74	High	Formal	pharmaceutical	Public				Middle	5 or more	
Novartis75	High	Formal	pharmaceutical	Public				Middle	5 or more	
Novartis76	Low	Informal	pharmaceutical	Close social	Affect	Positive		Middle	2	
Novartis77	High	Informal	pharmaceutical	Close social	Affect	Positive		Middle	2	
Novartis78	High	Informal	pharmaceutical	Public				Middle	5 or more	
Novartis79	High	Formal	pharmaceutical	Far personal				Middle	1	

Picture code	Pharmaceutical/			Appraisal theory		Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Non- pharmaceutical setting	Social distance	(affect/judgement/ appreciation)		
Novartis80	High	Formal	Non-pharmaceutical	Public		Middle	5 or more
Novartis81	High	Formal	Non-pharmaceutical	Far personal		Middle	1
Novartis82	High	Formal	Non-pharmaceutical	Public		Middle	5 or more
Novartis83	High	Formal	Non-pharmaceutical	Public		Middle	5 or more
Novartis84	High	Informal	Non-pharmaceutical	Public		Middle	5 or more
Novartis85	High	Informal	Non-pharmaceutical	Public		Middle	5 or more
Novartis86	High	Informal	Non-pharmaceutical	Public		Middle	5 or more
Novartis87	High	Informal	Non-pharmaceutical	Public		Middle	5 or more
Novartis88	High	Informal	Non-pharmaceutical	Public		Middle	5 or more
Novartis89	High	Informal	Non-pharmaceutical	Public		Middle	5 or more
Novartis90	High	Informal	Non-pharmaceutical	Public		Middle	5 or more
Novartis91	High	Formal	Non-pharmaceutical	Public		Middle	4
Novartis92	High	Formal	Non-pharmaceutical	Close personal	Affect	Top	3
Novartis93	Low	Informal	Non-pharmaceutical	Far personal	Affect	Middle	1
Novartis94	High	Formal	Pharmaceutical	Intimate		Top	0
Novartis95	Low			Close personal		Middle	1
Novartis96	Low	Formal	Pharmaceutical	Intimate		Middle	2
Novartis97	High	Formal	Pharmaceutical	Intimate		Middle	1
Novartis98	Low	Formal	Pharmaceutical	Close personal		Bottom	1
Novartis99	High	Formal	Pharmaceutical	Close personal		Middle	2
Novartis100	High	Formal	Pharmaceutical	Intimate		Middle	0

Picture code	Pharmaceutical/							Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Non- pharmaceutical setting	Social distance	Appraisal theory (affect/judgement/ appreciation)	Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)			
Novartis101	Low	Formal	Pharmaceutical	Far personal			Middle	3		
Novartis102	High	Formal	Non-pharmaceutical	Far personal			Middle	1		
Novartis103	High	Informal	Non-pharmaceutical	Public	Affect	Positive	Middle	5 or more		
Novartis104	Low	Informal	pharmaceutical	Far personal	Judgement	Positive	Middle	2		
Novartis105	Low	Formal	pharmaceutical	Far personal	Affect	Positive	Middle	4		
Orion1	Low	Informal	pharmaceutical	Close personal			Middle	3		
Orion2	Low	Formal	Pharmaceutical	Far personal			Middle	1		
Orion3	Low	Informal	pharmaceutical	Public			Middle	5 or more		
Orion4	Low	Formal	Pharmaceutical	Public			Middle	5 or more		
Orion5	Low	Formal	Pharmaceutical	Far social			Bottom	1		
Orion6	Low	Formal	Pharmaceutical	Far social			Middle	2		
Orion7	Low	Formal	Pharmaceutical	Intimate			Middle	0		
Orion8	Low	Informal	Pharmaceutical	Intimate			Bottom	1		
Orion9	High	Formal	Pharmaceutical	Close personal			Middle	1		
Orion10a	High	Formal	Pharmaceutical	Intimate			Top	1		
Orion10b	High	Informal	Pharmaceutical	Intimate			Middle	0		
Orion11	High	Formal	Pharmaceutical	Intimate			Middle	1		
Orion12	High	Formal	Pharmaceutical	Far personal			Middle	2		
Orion13	High	Formal	Pharmaceutical	Far personal			Bottom	1		
Orion14	Low	Informal	Non-pharmaceutical	Intimate			Bottom	0		
Orion15	Low	Formal	Pharmaceutical	Far personal			Bottom	1		
Orion16	Low	Formal	Pharmaceutical	Far personal			Middle	1		
Orion17	High	Formal	Pharmaceutical	Far social			Bottom	1		
Orion18	High	Formal	Pharmaceutical	Far personal	Judgement	Positive	Top	2		
Orion19	High	Formal	Pharmaceutical	Far personal	Affect	Positive	Bottom	2		
Orion20	High	Formal	Pharmaceutical	Far personal	Affect	Positive	Bottom	2		
Orion21	High	Formal	Pharmaceutical	Far personal	Judgement	Positive	Middle	2		

Picture code	Pharmaceutical/						Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Non- pharmaceutical setting	Social distance	Appraisal theory (affect/judgement/ appreciation)	Emotional appeal (pos/neg)			
Orion22	Low	Informal	Non- pharmaceutical	Close personal	Appreciation	Positive	Middle	1	
Orion23	High	Informal	Non- pharmaceutical	Far personal	Appreciation	Positive	Bottom	1	
Orion24	Low	Formal	Pharmaceutical	Intimate			Bottom	1	
Orion25	Low	Formal	Non- pharmaceutical	Far personal			Middle	2	
Orion27	Low	Formal	Pharmaceutical	Far personal			Top	2	
Orion28	High	Informal	Non- pharmaceutical	Close social	Appreciation	Positive	Middle	2	
Orion29	High	Informal	Pharmaceutical	Far personal			Middle	3	
Orion30	High	Informal	Non- pharmaceutical	Close social			Middle	1	
Orion31	High	Informal	Non- pharmaceutical	Intimate			Top	0	
Orion32	High	Informal	Non- pharmaceutical	Intimate			Top	0	
Orion33	High	Formal	Pharmaceutical	Far social			Top	1	
Orion34	High	Formal	Non- pharmaceutical	Public	Affect	Positive	Top	4	
Orion35	High	Informal	Non- pharmaceutical	Far personal	Affect	Positive	Top	2	
Orion36	High	Informal	Non- pharmaceutical	Public	Affect	Positive	Top	5 or more	
Orion37	High	Formal	Pharmaceutical	Far social			Top	2	
Orion38	High	Formal	Pharmaceutical	Far social			Top	3	
Orion39	High	Formal	Pharmaceutical	Far personal			Top	3	
Orion40	High	Formal	Pharmaceutical	Far personal	Affect	Positive	Top	2	
Orion41	High	Informal	Non- pharmaceutical	Intimate	Affect	Positive	Top	2	
Orion42	High	Formal	Pharmaceutical	Far personal			Top	2	
Orion43	Low	Formal	Non- pharmaceutical	Public			Top	4	
Orion44	Low	Formal	Pharmaceutical	Close personal			Top	1	
Orion45	High	Informal	Non- pharmaceutical	Public			Top	5 or more	

Picture code	Pharmaceutical/							Appraisal theory (affect/judgement/ appreciation)	Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Non- pharmaceutical setting	Social distance	Affect	Emotional appeal	Positioning of the image				
Orion46	Low	Informal	Non- pharmaceutical	Close social	Affect	Positive	Bottom	3			
Orion47	High	Formal	Pharmaceutical	Far personal	Affect	Positive	Top	3			
Orion48	High	Formal	Pharmaceutical	Close social			Top	4			
Orion49	High	Formal	Pharmaceutical	Far personal			Bottom	1			
Orion50	High	Informal	Pharmaceutical	Public	Affect	Positive	Top	4			
Orion51	Low	Formal	Pharmaceutical	Far personal	Affect	Positive	Top	2			
Pfizer1	High	Informal	pharmaceutical	Public			Top	5 or more			
Pfizer2	High	Formal	Pharmaceutical	Far personal			Top	1			
Pfizer3	High	Informal	pharmaceutical	Far personal	Affect	Positive	Top	2			
Pfizer4	Low	Informal	pharmaceutical	Intimate			Top	1			
Pfizer5	High	Formal	Pharmaceutical	Far personal			Top	4			
Pfizer6	High	Informal	pharmaceutical	Intimate			Top	2			
Pfizer7	Low	Informal	pharmaceutical	Far personal	Judgement	Positive	Top	2			
Pfizer8	High	Informal	pharmaceutical	Far personal	Judgement	Positive	Top	3			
Pfizer9	Low	Informal	pharmaceutical	Close social			Middle	1			
Pfizer10	Low	Informal	pharmaceutical	Public			Middle	3			
Pfizer11	Low	Informal	pharmaceutical	Public			Middle	1			
Pfizer12	Low	Informal	pharmaceutical	Public			Middle	5 or more			
Pfizer13	Low	Formal	pharmaceutical	Public			Middle	1			
Pfizer14	Low	Informal	pharmaceutical	Public			Middle	5 or more			
Pfizer15	Low	Formal	Pharmaceutical	Far social			Middle	2			
Pfizer17	Low	Formal	pharmaceutical	Close personal			Middle	1			

Picture code	Pharmaceutical/				Appraisal theory		Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Non- pharmaceutical setting	Social distance	(affect/judgement/ appreciation)	Emotional appeal (pos/neg)		
Pfizer19	Low	Formal	Non- pharmaceutical	Close personal			Middle	1
Pfizer20	Low	Formal	Pharmaceutical	Intimate			Middle	0
Pfizer21	Low	Formal	Pharmaceutical	Far personal			Middle	1
Pfizer22	Low	Informal	Non- pharmaceutical	Far personal			Middle	2
Pfizer23	Low	Formal	Non- pharmaceutical	Far personal			Middle	2
Pfizer24	Low	Formal	Non- pharmaceutical	Public			Middle	4
Pfizer25	Low	Formal	Pharmaceutical	Intimate			Middle	0
Pfizer26	Low	Formal	Pharmaceutical	Far personal			Middle	2
Pfizer27	High	Formal	Non- pharmaceutical	Public			Middle	4
Pfizer28	High	Formal	Non- pharmaceutical	Public			Middle	5 or more
Pfizer29	High	Formal	Pharmaceutical	Close personal			Top	1
Pfizer30	High	Formal	Non- pharmaceutical	Public			Middle	5 or more
Pfizer31	High	Formal	Non- pharmaceutical	Public			Middle	5 or more
Pfizer32	High	Formal	Pharmaceutical	Far personal			Top	2
Pfizer33	High	Informal	Non- pharmaceutical	Far personal			Bottom	3
Pfizer34	Low	Informal	Non- pharmaceutical	Far social	Judgement	Positive	Middle	2
Pfizer35	High	Formal	Pharmaceutical	Far personal			Top	2
Pfizer36	High	Informal	Non- pharmaceutical	Far personal	Affect	Positive	Top	2
Pfizer37	High	Informal	Non- pharmaceutical	Public			Top	5 or more
Pfizer38	Low	Informal	Non- pharmaceutical	Public			Bottom	4
Pfizer40	Low	Informal	pharmaceutical	Far personal			Middle	2
Pfizer41	Low	Formal	Pharmaceutical	Close personal			Bottom	1

Picture code	Pharmaceutical/ Non-pharmaceutical/ setting			Appraisal theory (affect/judgement/ appreciation)		Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Social distance	Affect/Judgement/ Appreciation	Emotional appeal (pos/neg)			
Pfizer42	High	Formal	Non-pharmaceutical Public				Middle	5 or more
Pfizer43	High	Formal	Non-pharmaceutical Far personal				Middle	1
Pfizer44	High	Formal	Non-pharmaceutical Far social				Middle	3
Pfizer45	Low	Informal	Non-pharmaceutical Close personal	Affect	Positive		Top	2
Pfizer46	Low	Informal	Non-pharmaceutical Intimate	Affect	Positive		Top	0
Pfizer47	Low	Formal	Pharmaceutical Intimate				Top	1
Pfizer48	Low	Informal	Non-pharmaceutical Close personal	Judgement	Positive		Top	3
Pfizer49	Low	Formal	Pharmaceutical Far personal	Affect	Positive		Top	3
Pfizer50	Low	Formal	Pharmaceutical Far personal	Affect	Positive		Top	3
Pfizer51	Low	Informal	Non-pharmaceutical Far personal	Judgement	Positive		Top	1
Pfizer52	Low	Formal	Pharmaceutical Far personal				Top	1
Pfizer53	High	Informal	Non-pharmaceutical Far personal	Affect	Positive		Middle	2
Pfizer54	Low	Informal	Non-pharmaceutical Far personal	Affect	Positive		Middle	2
Pfizer55	High	Formal	Pharmaceutical Far personal				Top	2
Pfizer56	Low	Formal	Pharmaceutical Intimate				Middle	1
Pfizer57	Low	Formal	Pharmaceutical Intimate				Top	1
Sanofi1	High	Informal	Non-pharmaceutical Public				Middle	5 or more
Sanofi2	Low	Informal	Non-pharmaceutical Public				Top	5 or more
Sanofi3	Low	Informal	Pharmaceutical Intimate				Middle	1
Sanofi4a	Low	Formal	Pharmaceutical Close personal				Middle	2
Sanofi4b	High	Formal	Non-pharmaceutical Public				Middle	5 or more
Sanofi5	Low	Formal	Pharmaceutical Close personal				Top	1
Sanofi6	High	Formal	Pharmaceutical Close personal				Middle	1

Picture code	Pharmaceutical/			Appraisal theory		Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Non- pharmaceutical setting	Social distance	(affect/judgement/ appreciation)		
Sanofi7	Low	Formal	Pharmaceutical	Intimate		Top	0
Sanofi8	High	Formal	Pharmaceutical	Intimate		Middle	1
Sanofi9	High	Formal	Pharmaceutical	Far personal		Middle	2
Sanofi10	Low	Informal	Non- pharmaceutical	Far personal		Top	4
Sanofi11	Low	Informal	Non- pharmaceutical	Close personal	Affect	Middle	2
Sanofi12	High	Formal	pharmaceutical	Public		Middle	5 or more
Sanofi13	High	Formal	Pharmaceutical	Far social		Middle	1
Sanofi14	Low	Informal	Non- pharmaceutical	Far personal		Top	5 or more
Sanofi15	High	Formal	Non- pharmaceutical	Far personal		Middle	2
Sanofi16	Low	Informal	pharmaceutical	Far personal		Top	2
Sanofi17	High	Formal	Pharmaceutical	Close social	Affect	Middle	1
Sanofi18	High	Informal	Non- pharmaceutical	Close personal	Affect	Middle	1
Sanofi19	High	Formal	Non- pharmaceutical	Public		Middle	5 or more
Sanofi20	High	Informal	pharmaceutical	Close personal	Affect	Middle	2
Sanofi23	Low	Informal	pharmaceutical	Far personal	Affect	Bottom	5 or more
Sanofi26	High	Formal	Pharmaceutical	Far personal	Affect	Top	2
Sanofi27	Low	Formal	Pharmaceutical	Intimate		Bottom	1
Sanofi28	Low	Formal	Non- pharmaceutical	Close personal	Affect	Top	1
Sanofi29	High	Formal	Pharmaceutical	Far personal		Middle	1
Sanofi30	High	Formal	Pharmaceutical	Far personal		Middle	1
Sanofi31	High	Formal	Pharmaceutical	Intimate		Middle	1
Sanofi32	High	Formal	Pharmaceutical	Intimate		Middle	1
Sanofi33	High	Formal	Pharmaceutical	Intimate		Middle	1

Picture code	Pharmaceutical/ Non-pharmaceutical			Appraisal theory (affect/judgement/ appreciation)	Emotional appeal (pos/neg)	Positioning of the image (top/middle/bottom)	Number of figures
	Modality (high/low)	Formal/ informal setting	Social distance				
Sanofi34	Low	Informal	Non-pharmaceutical Intimate			Middle	1
Sanofi35	Low	Informal	Pharmaceutical Close personal			Middle	1
Sanofi36	High	Formal	Pharmaceutical Public			Middle	5 or more
Sanofi37	Low	Formal	Pharmaceutical Close personal			Top	1
Sanofi38	High	Formal	Non-pharmaceutical Far personal			Middle	1
Sanofi39	High	Formal	Non-pharmaceutical Public			Middle	5 or more
Sanofi40	Low	Formal	Pharmaceutical Public			Middle	5 or more
Sanofi42	Low	Informal	Non-pharmaceutical Close personal	Affect	Positive	Top	4
Sanofi43	High	Formal	Non-pharmaceutical Close personal			Middle	2
Sanofi44	High	Formal	Non-pharmaceutical Close personal			Middle	2
Sanofi45	Low	Formal	Pharmaceutical Intimate			Top	1
Sanofi47	Low	Informal	Non-pharmaceutical Close personal			Top	2
Sanofi48	High	Formal	Pharmaceutical Close personal			Top	2
Sanofi49	Low	Formal	Pharmaceutical Close personal			Top	3
Sanofi50	Low	Informal	Non-pharmaceutical Intimate			Top	2
Sanofi51	Low	Informal	Non-pharmaceutical Intimate			Top	3

Appendix 3: The analysis of the narrative images at the rank of figure

<i>Picture code</i>	<i>Spokes-personality</i>	<i>Gender</i>	<i>Age (child, young adult, adult, elderly)</i>	<i>Gaze (camera, figure, distance, object)</i>	<i>Focal point</i>	<i>High-lighting</i>	<i>Clothing (casual, smart, work)</i>	<i>Actor – Goal</i>	<i>Positioning of figures (left/centre/right)</i>	<i>Alignment of figures (straight/diagonally)</i>
Novartis2	Consumer	Female	Child	Figure	No	No	Can't see	Actor	Left	Straight
Novartis2	Consumer	Female	Adult	Figure	Yes	No	Can't see	Goal	Right	Straight
Novartis3	Consumer	Female	Child	Eyes closed	Yes	No	Casual	Actor	Right	Diagonally
Novartis4	Consumer	Female	Elderly	Figure	Yes	No	Can't see	Actor	Left	Straight
Novartis4	Consumer	Male	Child	Distance	No	No	Casual	Goal	Centre	Straight
Novartis5	Consumer	Female	Adult	Figure	No	No	Casual	Actor	Left	Diagonally
Novartis5	Expert	Male	Adult	Figure	No	No	Work	Goal	Centre	Straight
Novartis5	Expert	Female	Adult	Figure	Yes	No	Work	Goal	Right	Diagonally
Novartis6	Consumer	Female	Adult	Distance	No	No	Casual	Goal	Left	Straight
Novartis6	Expert	Female	Adult	Object	Yes	No	Work	Actor	Right	Straight
Novartis7	Expert	Female	Young adult	Object	Yes	No	Work	Actor	Left	Straight
Novartis8	Consumer	Female	Adult	Object	Yes	No	Casual	Actor	Centre	Straight
Novartis9	Expert	Male	Adult	Object	Yes	No	Work	Actor	Right	Diagonally
Novartis10	Expert	Male	Adult	Object	Yes	No	Work	Goal	Centre	Straight
Novartis10	Consumer	Female	Adult	Object	No	No	Smart	Actor	Right	Straight
Novartis11	Consumer	Male	Elderly	Object	Yes	No	Casual	Actor	Centre	Straight
Novartis11	Consumer	Male	Young adult	Object	No	No	Casual	Actor	Right	Straight
Novartis12	Business professional	Male	Adult	Distance	No	No	Smart	Actor	Left	Straight
Novartis12	Business professional	Female	Adult	Distance	Yes	No	Smart	Actor	Centre	Diagonally
Novartis12	Business professional	Male	Adult	Distance	No	No	Smart	Actor	Centre	Straight
Novartis12	Business professional	Female	Adult	Distance	No	No	Smart	Actor	Right	Straight
Novartis12	Business professional	Female	Adult	Distance	No	No	Smart	Actor	Right	Straight
Novartis12	Business professional	Female	Adult	Distance	No	No	Smart	Actor	Right	Straight
Novartis14	Consumer	Female	Elderly	Object	No	No	Casual	Actor	Left	Straight
Novartis14	Consumer	Male	Child	Object	Yes	No	Casual	Goal	Centre	Straight

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object)										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	young adult	elderly	figure, distance, object	Focal point	High-lighting	casual	smart	work	Actor – Goal	(left/centre/right)	(left/centre/right)	(straight/diagonally)		
Novartis15	Consumer	Male	Young adult	Object	No	No	Can't see	Actor	Left	Diagonally						
Novartis15	Consumer	Female	Young adult	Object	Yes	No	Can't see	Goal	Centre	Straight						
Novartis15	Consumer	Male	Young adult	Object	No	No	Smart	Actor	Right	Straight						
Novartis16	Consumer	Female	Child	Distance	Yes	No	Casual	Actor	Left	Straight						
Novartis16	Consumer	Female	Adult	Figure	No	No	Casual	Goal	Right	Diagonally						
Novartis18	Consumer	Male	Child	Distance	Yes	No	Casual	Actor	Left	Diagonally						
Novartis18	Consumer	Male	Adult	Distance	No	No	Casual	Goal	Right	Diagonally						
Novartis19	Expert	Male	Adult	Figure	Yes	No	Work	Actor	Left	Straight						
Novartis19	Consumer	Female	Adult	Distance	No	No	Casual	Goal	Right	Straight						
Novartis20	Employee	Male	Adult	Figure	Yes	No	Casual	Actor	Right	Straight						
Novartis20	Consumer	Male	Adult	Object	No	No	Casual	Goal	Left	Straight						
Novartis21	Business professional	Female	Adult	Distance	No	No	Smart	Actor	Left	Straight						
Novartis21	Business professional	Male	Adult	Distance	Yes	No	Smart		Centre	Straight						
Novartis21	Business professional	Male	Adult	Distance	No	No	Smart	Goal	Centre	Straight						
Novartis21	Business professional	Female	Adult	Distance	No	No	Smart	Actor	Right	Straight						
Novartis22	Employee	Male	Adult	Other	No	No	Work	Actor	Centre	Straight						
Novartis23	Consumer	Female	Adult	Other	No	No	Casual		Left	Straight						
Novartis23	Consumer	Female	Elderly	Other	Yes	No	Casual	Goal	Centre	Straight						
Novartis23	Employee	Male	Adult	Other	No	No	Casual	Actor	Right	Diagonally						
Novartis24	Employee	Male	Adult	Figure	Yes	No	Casual	Actor	Left	Straight						
Novartis24	Consumer	Male	Adult	Distance	No	No	Casual	Goal	Left	Straight						
Novartis24	Consumer	Female	Adult	Other	No	No	Casual	Goal	Centre	Diagonally						
Novartis24	Consumer	Female	Adult	Other	No	No	Casual	Goal	Centre	Straight						
Novartis25	Consumer	Female	Adult	Other	No	No	Casual	Actor	Left	Diagonally						
Novartis25	Consumer	Female	Adult	Other	Yes	No	Casual	Actor	Right	Diagonally						
Novartis26	Business professional	Male	Adult	Figure	No	No	Smart	Actor	Left	Straight						
Novartis26	Consumer	Male	Adult	Figure	Yes	No	Casual		Left	Straight						
Novartis26	Consumer	Male	Young adult	Figure	No	No	Casual		Centre	Straight						
Novartis26	Consumer	Male	Child	Other	No	No	Casual	Goal	Right	Straight						

Picture code	Age (child, young adult, adult, elderly), Gaze (camera, figure, distance, object), Spokes-personality, Gender										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age (child, young adult, adult, elderly)	Gaze (camera, figure, distance, object)	Focal point	High-lighting	Clothing (casual, smart, work)	Actor – Goal	Positioning of figures (left/centre/right)	Alignment of figures (straight/diagonally)						
Novartis27	Consumer	Female	Child	Other	No	No	Smart	Left	Straight							
Novartis27	Consumer	Male	Child	Other	Yes	No	Smart	Centre	Diagonally							
Novartis27	Consumer	Male	Child	Other	No	No	Smart	Right	Diagonally							
Novartis28	Business professional	Male	Adult	Figure	No	No	Can't see	Left	Straight							
Novartis28	Business professional	Female	Adult	Figure	Yes	No	Smart	Centre	Straight							
Novartis28	Business professional	Male	Adult	Figure	No	No	Smart	Right	Straight							
Novartis30	Business professional	Female	Adult	Distance	Yes	No	Smart	Centre	Diagonally							
Novartis30	Business professional	Male	Adult	Distance	No	No	Smart	Right	Diagonally							
Novartis31	Business professional	Male	Adult	Figure	No	No	Smart	Left	Straight							
Novartis31	Business professional	Female	Adult	Figure	Yes	No	Smart	Right	Straight							
Novartis32	Employee	Male	Adult	Other	Yes	No	Work	Centre	Diagonally							
Novartis33	Employee	Female	Adult	Other	Yes	No	Work	Left	Straight							
Novartis34	Consumer	Male	Elderly	Distance	No	No	Casual	Left	Straight							
Novartis34	Consumer	Female	Child	Distance	Yes	No	Casual	Right	Straight							
Novartis35	Consumer	Male	Child	Distance	No	No	Casual	Left	Straight							
Novartis35	Consumer	Male	Adult	Distance	Yes	No	Casual	Centre	Straight							
Novartis35	Consumer	Male	Child	Distance	No	No	Casual	Right	Straight							
Novartis36	Consumer	Female	Adult	Figure	Yes	No	Can't see	Right	Straight							
Novartis36	Expert	Male	Adult	Figure	No	No	Work	Right	Straight							
Novartis37	Employee	Female	Young adult	Object	Yes	No	Work	Right	Straight							
Novartis38	Consumer	Male	Child	Object	No	No	Casual	Left	Diagonally							
Novartis38	Consumer	Female	Adult	Figure	No	No	Casual	Left	Straight							
Novartis38	Consumer	Female	Child	Distance	Yes	No	Casual	Centre	Straight							
Novartis38	Consumer	Male	Adult	Figure	No	No	Casual	Centre	Straight							
Novartis39	Consumer	Male	Child	Distance	Yes	No	Casual	Centre	Straight							
Novartis40	Business professional	Male	Adult	Distance	Yes	No	Smart	Right	Straight							
Novartis41	Employee	Female	Young adult	Object	Yes	No	Work	Left	Diagonally							

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object), Spokes-personality, Gender										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age (child, young adult, elderly)	Gaze (camera, figure, distance, object)	Focal point	High-lighting	Goal	Actor –	Goal	Actor –	Goal	Positioning of figures (left/centre/right)	Alignment of figures (straight/diagonally)			
Novartis42	Consumer	Female	Child	Object	Yes	No	Casual	Actor	Right	Actor	Right	Straight				
Novartis43		Female	Adult	Distance	Yes	No	Casual	Actor	Left	Actor	Left	Straight				
Novartis44	Consumer	Male	Adult	Figure	No	No	Can't see	Goal	Left	Goal	Left	Diagonally				
Novartis44	Consumer	Female	Adult	Figure	Yes	No	Can't see	Goal	Right	Goal	Right	Straight				
Novartis44	Consumer	Male	Adult	Figure	No	No	Can't see	Actor	Right	Actor	Right	Straight				
Novartis45	Expert	Female	Adult	Object	Yes	No	Work	Actor	Right	Actor	Right	Diagonally				
Novartis46	Employee	Male	Adult	Camera	Yes	No	Work	Actor	Centre	Actor	Centre	Diagonally				
Novartis47	Consumer	Female	Adult	Figure	Yes	No	Can't see	Goal	Centre	Goal	Centre	Diagonally				
Novartis48	Business professional	Male	Adult	Figure	Yes	No	Smart	Goal	Left	Goal	Left	Diagonally				
Novartis48	Business professional	Male	Adult	Figure	No	No	Smart	Actor	Right	Actor	Right	Straight				
Novartis49a	Business professional	Male	Adult	Distance	No	No	Smart	Actor	Left	Actor	Left	Straight				
Novartis49a	Business professional	Female	Adult	Figure	Yes	No	Smart	Goal	Left	Goal	Left	Straight				
Novartis49b	Consumer	Male	Adult	Figure	Yes	No	Casual	Goal	Centre	Goal	Centre	Straight				
Novartis49b	Consumer	Female	Adult	Figure	No	No	Can't see	Actor	Right	Actor	Right	Straight				
Novartis50	Consumer	Male	Adult	Distance	Yes	No	Casual	Goal	Centre	Goal	Centre	Straight				
Novartis50	Consumer	Male	Adult	Distance	No	No	Casual	Goal	Right	Goal	Right	Diagonally				
Novartis51	Business professional	Male	Adult	Object	Yes	No	Smart	Actor	Centre	Actor	Centre	Straight				
Novartis54	Business professional	Female	Adult	Figure	No	No	Smart	Goal	Left	Goal	Left	Straight				
Novartis54	Business professional	Male	Adult	Figure	No	No	Smart	Goal	Left	Goal	Left	Straight				
Novartis54	Business professional	Male	Adult	Figure	No	No	Smart	Actor	Left	Actor	Left	Straight				
Novartis54	Business professional	Male	Adult	Figure	No	No	Smart	Goal	Centre	Goal	Centre	Straight				
Novartis54	Business professional	Male	Adult	Figure	Yes	No	Smart	Goal	Centre	Goal	Centre	Straight				
Novartis56	Business professional	Female	Adult	Figure	Yes	No	Smart	Actor	Centre	Actor	Centre	Straight				
Novartis56	Business professional	Male	Adult	Figure	No	No	Smart	Goal	Right	Goal	Right	Straight				

Picture code	Age (child, young adult, adult, elderly), Gaze (camera, figure, distance, object), Focal point, High-lighting										Clothing (casual, smart, work)		Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age	Gaze	figure	distance	object	Focal point	High-lighting	Goal	Actor – Goal	Positioning	Alignment		
Novartis58	Business professional	Male	Adult	Distance			Yes	No	Smart	Actor	Left	Straight			
Novartis58	Business professional	Female	Adult	Object			No	No	Smart	Actor	Right	Straight			
Novartis60	Business professional	Male	Adult	Distance			No	No	Smart	Actor	Left	Straight			
Novartis62	Employee	Female	Adult	Object			Yes	No	Can't see	Actor	Left	Straight			
Novartis63	Employee	Male	Adult	Object			Yes	No	Can't see	Actor	Left	Straight			
Novartis64	Consumer	Female	Young adult	Distance			Yes	No	Casual	Actor	Right	Straight			
Novartis65	Consumer	Female	Young adult	Figure			No	No	Smart	Goal	Left	Straight			
Novartis65	Consumer	Female	Young adult	Figure			Yes	No	Smart	Actor	Centre	Straight			
Novartis65	Consumer	Male	Adult	Figure			No	No	Casual	Actor	Centre	Straight			
Novartis65	Consumer	Male	Adult	Figure			No	No	Casual	Goal	Right	Straight			
Novartis66	Consumer	Male	Adult	Object			Yes	No	Casual	Actor	Centre	Straight			
Novartis66	Consumer	Male	Adult	Distance			No	No	Casual	Actor	Centre	Straight			
Novartis67	Employee	Female	Young adult	Object			Yes	No	Work	Actor	Centre	Straight			
Novartis68	Consumer	Male	Adult	Distance			Yes	No	Casual	Actor	Left	Diagonally			
Novartis69	Consumer	Female	Young adult	Distance			No	No	Smart	Goal	Centre	Diagonally			
Novartis69	Consumer	Female	Young adult	Distance			Yes	No	Smart	Actor	Right	Diagonally			
Novartis70	Business professional	Female	Young adult	Object			No	No	Smart	Goal	Left	Diagonally			
Novartis70	Business professional	Male	Adult	Object			No	No	Smart	Goal	Left	Diagonally			
Novartis70	Business professional	Female	Young adult	Object			Yes	No	Smart	Actor	Centre	Straight			
Novartis70	Business professional	Female	Young adult	Object			No	No	Smart	Goal	Centre	Diagonally			
Novartis70	Business professional	Male	Young adult	Object			No	No	Smart	Goal	Right	Diagonally			
Novartis70	Business professional	Female	Young adult	Distance			No	No	Can't see	Actor	Right	Diagonally			
Novartis72	Employee	Male	Adult	Figure			No	No	Work	Actor	Left	Straight			
Novartis72	Employee	Male	Adult	Figure			Yes	No	Work	Actor	Left	Straight			
Novartis73	Consumer	Male	Adult	Distance			No	No	Smart	Actor	Left	Straight			
Novartis73	Consumer	Male	Adult	Distance			No	No	Smart	Actor	Left	Straight			

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object)										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age	Gaze	figure, distance, object)	Focal point	High-lighting	Clothing	Actor – Goal	Positioning	Alignment					
Novartis73	Consumer	Male	Adult	Distance	No	No	No	Smart	Centre	Straight						
Novartis73	Consumer	Male	Adult	Object	No	No	Smart	Centre	Straight							
Novartis73	Consumer	Male	Young adult	Distance	No	No	Casual	Right	Straight							
Novartis73	Consumer	Male	Young adult	Distance	No	No	Can't see	Left	Straight							
Novartis73	Consumer	Male	Adult	Distance	No	No	Smart	Left	Straight							
Novartis73	Consumer	Female	Young adult	Distance	No	No	Smart	Centre	Straight							
Novartis73	Consumer	Female	Young adult	Distance	No	No	Casual	Centre	Straight							
Novartis73	Consumer	Female	Young adult	Distance	No	No	Casual	Centre	Straight							
Novartis73	Consumer	Male	Adult	Distance	No	No	Smart	Right	Straight							
Novartis73	Consumer	Male	Adult	Distance	Yes	No	Smart	Left	Diagonally							
Novartis73	Consumer	Female	Young adult	Distance	No	No	Casual	Left	Straight							
Novartis73	Consumer	Female	Adult	Distance	No	No	Casual	Centre	Straight							
Novartis73	Consumer	Female	Young adult	Distance	No	No	Casual	Centre	Straight							
Novartis73	Consumer	Male	Young adult	Distance	No	No	Smart	Right	Straight							
Novartis74	Business professional	Female	Young adult	Figure	No	No	Smart	Left	Straight							
Novartis74	Business professional	Male	Adult	Figure	Yes	No	Smart	Left	Straight							
Novartis74	Business professional	Male	Young adult	Figure	No	No	Smart	Centre	Straight							
Novartis74	Business professional	Female	Young adult	Figure	No	No	Smart	Right	Straight							
Novartis74	Business professional	Male	Young adult	Figure	No	No	Smart	Right	Straight							
Novartis74	Business professional	Male	Adult	Figure	Yes	No	Smart	Right	Straight							
Novartis74	Business professional	Male	Elderly	Figure	No	No	Casual	Left	Straight							
Novartis74	Business professional	Male	Elderly	Figure	Yes	No	Casual	Right	Straight							
Novartis74	Business professional	Male	Elderly	Figure	No	No	Casual	Centre	Diagonally							
Novartis74	Business professional	Female	Elderly	Figure	Yes	No	Casual	Right	Diagonally							
Novartis74	Business professional	Female	Adult	Object	Yes	No	Casual	Left	Straight							
Novartis74	Business professional	Male	Adult	Object	No	No	Casual	Left	Straight							
Novartis74	Business professional	Male	Adult	Distance	Yes	No	Smart	Centre	Diagonally							

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object)										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age	Gaze	figure	distance	object	Focal point	High-lighting	Goal	Actor	Goal	Actor	Goal	Actor	Goal
Novartis81	Business professional	Male	Adult	Distance	Distance	Yes	No	No	Smart	Actor	Actor	Centre	Centre	Straight		
Novartis83	Consumer	Male	Adult	Distance	Distance	No	No	No	Smart	Actor	Actor	Left	Left	Diagonally		
Novartis83	Consumer	Male	Adult	Figure	Figure	Yes	No	No	Smart	Actor	Actor	Left	Left	Diagonally		
Novartis83	Consumer	Male	Adult	Distance	Distance	No	No	No	Smart	Goal	Goal	Centre	Centre	Diagonally		
Novartis83	Consumer	Female	Adult	Figure	Figure	No	No	No	Casual	Goal	Goal	Centre	Centre	Diagonally		
Novartis83	Consumer	Male	Adult	Distance	Distance	No	No	No	Casual	Goal	Goal	Right	Right	Diagonally		
Novartis83	Consumer	Male	Adult	Distance	Distance	No	No	No	Casual	Goal	Goal	Right	Right	Diagonally		
Novartis88	Consumer	Female	Adult	Figure	Figure	Yes	No	No	Casual	Goal	Goal	Centre	Centre	Straight		
Novartis88	Consumer	Male	Adult	Figure	Figure	No	No	No	Smart	Actor	Actor	Centre	Centre	Straight		
Novartis89	Consumer	Female	Adult	Figure	Figure	No	No	No	Casual	Goal	Goal	Centre	Centre	Straight		
Novartis89	Consumer	Male	Adult	Figure	Figure	Yes	No	No	Casual	Actor	Actor	Centre	Centre	Straight		
Novartis89	Consumer	Female	Adult	Distance	Distance	No	No	No	Casual	Goal	Goal	Centre	Centre	Straight		
Novartis89	Consumer	Male	Adult	Distance	Distance	No	No	No	Smart	Actor	Actor	Centre	Centre	Straight		
Novartis91	Business professional	Male	Adult	Object	Object	No	No	No	Smart	Goal	Goal	Left	Left	Straight		
Novartis91	Business professional	Male	Adult	Object	Object	Yes	No	No	Smart	Goal	Goal	Centre	Centre	Diagonally		
Novartis91	Business professional	Male	Adult	Figure	Figure	No	No	No	Smart	Actor	Actor	Centre	Centre	Straight		
Novartis91	Business professional	Female	Adult	Object	Object	No	No	No	Smart	Actor	Actor	Right	Right	Diagonally		
Novartis92	Business professional	Male	Adult	Object	Object	Yes	No	No	Smart	Actor	Actor	Left	Left	Straight		
Novartis92	Business professional	Male	Adult	Object	Object	No	No	No	Smart	Actor	Actor	Centre	Centre	Straight		
Novartis92	Business professional	Female	Adult	Object	Object	No	No	No	Smart	Actor	Actor	Right	Right	Diagonally		
Novartis93	Consumer	Male	Elderly	Distance	Distance	Yes	No	No	Casual	Goal	Goal	Right	Right	Straight		
Novartis96	Consumer	Male	Adult	Distance	Distance	Yes	No	No	Can't see	Goal	Goal	Left	Left	Straight		
Novartis97	Employee	Male	Adult	Object	Object	Yes	No	No	Work	Actor	Actor	Centre	Centre	Straight		
Novartis98	Employee	Male	Young adult	Object	Object	Yes	No	No	Work	Actor	Actor	Centre	Centre	Diagonally		
Novartis99	Employee	Male	Adult	Object	Object	No	No	No	Work	Actor	Actor	Centre	Centre	Straight		
Novartis99	Employee	Female	Adult	Object	Object	Yes	No	No	Work	Actor	Actor	Right	Right	Diagonally		
Novartis101	Employee	Male	Adult	Object	Object	Yes	No	No	Smart	Goal	Goal	Centre	Centre	Straight		

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object), Focal point lighting										Clothing (casual, smart, work)		Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)	
	Spokes-personality	Gender	Age	Gaze	figure, distance, object)	Focal point	lighting	Casual	Smart	Work	Goal	Actor	Actor	Goal	Actor	Goal
Novartis101	Employee	Male	Adult	Object	Object	No	No	Smart	Smart	Actor	Actor	Left	Left	Right	Right	Straight
Novartis101	Employee	Male	Adult	Figure	Figure	No	No	Smart	Smart	Actor	Actor	Right	Right	Right	Right	Straight
Novartis102	Business professional	Male	Adult	Distance	Distance	Yes	No	Smart	Smart	Actor	Actor	Centre	Centre	Centre	Centre	Straight
Novartis103	Consumer	Male	Child	Distance	Distance	No	No	Casual	Casual			Left	Left	Left	Left	Straight
Novartis103	Consumer	Male	Adult	Distance	Distance	Yes	No	Casual	Casual			Left	Left	Left	Left	Straight
Novartis103	Consumer	Male	Adult	Distance	Distance	No	No	Casual	Casual			Left	Left	Left	Left	Straight
Novartis103	Consumer	Male	Child	Distance	Distance	No	No	Casual	Casual			Right	Right	Right	Right	Diagonally
Novartis103	Consumer	Male	Child	Distance	Distance	No	No	Casual	Casual			Right	Right	Right	Right	Diagonally
Novartis103	Consumer	Male	Child	Distance	Distance	No	No	Casual	Casual			Right	Right	Right	Right	Straight
Novartis103	Consumer	Male	Child	Distance	Distance	No	No	Casual	Casual			Right	Right	Right	Right	Straight
Novartis104	Consumer	Female	Adult	Figure	Figure	Yes	No	Smart	Smart	Goal	Goal	Left	Left	Left	Left	Straight
Novartis104	Consumer	Male	Adult	Figure	Figure	No	No	Smart	Smart	Actor	Actor	Right	Right	Right	Right	Straight
Novartis105	Business professional	Male	Adult	Figure	Figure	No	No	Smart	Smart	Actor	Actor	Left	Left	Left	Left	Diagonally
Novartis105	Business professional	Female	Adult	Figure	Figure	No	No	Smart	Smart	Goal	Goal	Left	Left	Left	Left	Diagonally
Novartis105	Business professional	Male	Adult	Figure	Figure	Yes	No	Smart	Smart	Goal	Goal	Centre	Centre	Centre	Centre	Diagonally
Novartis105	Business professional	Female	Adult	Figure	Figure	No	No	Smart	Smart	Goal	Goal	Right	Right	Right	Right	Diagonally
Orion1	Business professional	Male	Adult	Distance	Distance	No	No	Smart	Smart			Left	Left	Left	Left	Straight
Orion1	Business professional	Male	Adult	Camera	Camera	Yes	No	Smart	Smart			Centre	Centre	Centre	Centre	Straight
Orion1	Business professional	Male	Adult	Distance	Distance	No	No	Smart	Smart	Actor	Actor	Right	Right	Right	Right	Diagonally
Orion2	Expert	Male	Adult	Object	Object	Yes	No	Work	Work	Actor	Actor	Centre	Centre	Centre	Centre	Straight
Orion4	Employee	Male	Adult	Object	Object	No	No	Work	Work	Actor	Actor	Left	Left	Left	Left	Straight
Orion4	Employee	Female	Adult	Object	Object	Yes	No	Work	Work	Actor	Actor	Centre	Centre	Centre	Centre	Straight
Orion5	Employee	Female	Adult	Object	Object	Yes	No	Work	Work	Actor	Actor	Centre	Centre	Centre	Centre	Straight
Orion6	Employee	Female	Adult	Object	Object	No	No	Work	Work	Actor	Actor	Centre	Centre	Centre	Centre	Diagonally
Orion6	Employee	Male	Adult	Figure	Figure	Yes	No	Work	Work			Right	Right	Right	Right	Straight
Orion8	Consumer	Female	Young adult	Distance	Distance	Yes	No	Casual	Casual	Actor	Actor	Right	Right	Right	Right	Straight
Orion9	Employee	Adult	Adult	Distance	Distance	Yes	No	Work	Work			Centre	Centre	Centre	Centre	Diagonally

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object)										Focal point	High-lighting	Clothing (casual, smart, work)		Actor – Goal	Positioning of figures (left/centre/right)	Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Distance	Object	Yes	No	Work	Smart	Actor	Goal							
Orion10a	Employee	Adult	Adult	Yes	No	Work		Actor	Centre	Straight							
Orion10b	Consumer	Adult	Adult	Yes	No	Goal		Goal	Right	Diagonally							
Orion11	Expert	Adult	Adult	Yes	No	Work		Actor	Centre	Straight							
Orion12	Employee	Adult	Adult	No	No	Work	Object	Actor	Right	Straight							
Orion12	Employee	Adult	Adult	Yes	No	Work	Object	Actor	Right	Straight							
Orion13	Employee	Adult	Adult	Yes	No	Work	Object	Actor	Centre	Straight							
Orion15	Employee	Adult	Adult	Yes	No	Work	Object	Actor	Centre	Straight							
Orion16	Employee	Adult	Adult	Yes	No	Work	Object	Actor	Left	Straight							
Orion17	Employee	Adult	Adult	Yes	No	Work	Object	Actor	Right	Straight							
Orion18	Expert	Adult	Adult	Yes	No	Work	Figure	Actor	Centre	Straight							
Orion18	Consumer	Adult	Adult	No	No	Casual	Figure	Goal	Centre	Straight							
Orion19	Consumer	Adult	Adult	Yes	No	Casual	Figure	Actor	Centre	Straight							
Orion19	Expert	Adult	Adult	No	No	Work	Figure	Goal	Right	Straight							
Orion20	Expert	Adult	Adult	No	No	Work	Figure	Actor	Left	Straight							
Orion20	Consumer	Adult	Adult	Yes	No	Casual	Figure	Goal	Right	Diagonally							
Orion21	Expert	Adult	Adult	Yes	No	Work	Object	Actor	Centre	Diagonally							
Orion21	Consumer	Adult	Adult	No	No	Casual	Object	Goal	Right	Diagonally							
Orion22	Consumer	Young adult	Young adult	Yes	No	Casual	Distance	Actor	Centre	Straight							
Orion23	Consumer	Young adult	Young adult	Yes	No	Casual	Object	Actor	Centre	Diagonally							
Orion24	Employee	Adult	Adult	No	No	Work		Actor	Centre	Straight							
Orion25	Employee	Adult	Adult	Yes	No	Casual	Figure	Goal	Left	Straight							
Orion25	Employee	Adult	Adult	No	No	Smart	Figure	Actor	Right	Straight							
Orion27	Employee	Adult	Adult	Yes	No	Work	Object	Actor	Centre	Straight							
Orion27	Employee	Adult	Adult	No	No	Work	Object	Actor	Centre	Straight							
Orion28	Consumer	Child	Child	Yes	No	Casual	Distance	Actor	Centre	Diagonally							
Orion29	Employee	Adult	Adult	No	No	Work	Figure	Actor	Left	Diagonally							
Orion29	Employee	Adult	Adult	Yes	No	Work	Figure	Actor	Centre	Straight							
Orion29	Employee	Adult	Adult	No	No	Work	Figure	Actor	Right	Straight							
Orion30	Consumer	Child	Child	Yes	No	Casual	Object	Actor	Centre	Diagonally							
Orion33	Employee	Adult	Adult	Yes	No	Work	Object	Actor	Left	Straight							
Orion34	Business professional	Young adult	Young adult	No	No	Smart	Object	Goal	Left	Diagonally							

<i>Picture code</i>	<i>Spokes-personality</i>	<i>Gender</i>	<i>Age (child, young adult, adult, elderly)</i>	<i>Gaze (camera, figure, distance, object)</i>	<i>Focal point</i>	<i>High-lighting</i>	<i>Clothing (casual, smart, work)</i>	<i>Actor – Goal</i>	<i>Positioning of figures (left/centre/right)</i>	<i>Alignment of figures (straight/diagonally)</i>
Orion34	Business professional	Male	Young adult	Object	No	No	Smart	Goal	Centre	Straight
Orion34	Business professional	Female	Young adult	Object	Yes	No	Smart	Goal	Centre	Diagonally
Orion34	Business professional	Female	Young adult	Figure	No	No	Smart	Actor	Right	Straight
Orion35	Consumer	Male	Elderly	Figure	No	No	Casual	Actor	Left	Straight
Orion35	Consumer	Female	Elderly	Figure	Yes	No	Casual	Goal	Centre	Straight
Orion36	Consumer	Female	Child	Figure	No	No	Casual		Centre	Straight
Orion36	Consumer	Male	Adult	Distance	No	No	Casual		Centre	Straight
Orion36	Consumer	Male	Child	Distance	Yes	No	Casual		Centre	Straight
Orion36	Consumer	Male	Child	Figure	No	No	Casual		Right	Diagonally
Orion36	Consumer	Female	Adult	Figure	No	No	Casual		Right	Straight
Orion37	Employee	Female	Adult	Object	Yes	No	Work	Actor	Centre	Straight
Orion37	Employee	Female	Adult	Object	No	No	Work	Actor	Right	Straight
Orion38	Employee	Female	Adult	Object	No	No	Work		Left	Diagonally
Orion38	Employee	Female	Adult	Object	No	No	Work	Actor	Centre	Straight
Orion38	Employee	Male	Adult	Object	Yes	No	Work		Centre	Straight
Orion39	Employee	Male	Adult	Figure	No	No	Work	Actor	Centre	Straight
Orion39	Employee	Male	Adult	Object	No	No	Work	Actor	Centre	Straight
Orion39	Employee	Female	Adult	Object	Yes	No	Work	Actor	Centre	Straight
Orion40	Expert	Female	Adult	Figure	Yes	No	Work	Actor	Centre	Straight
Orion40	Consumer	Female	Adult	Figure	No	No	Casual	Goal	Right	Diagonally
Orion41	Consumer	Male	Elderly	Figure	Yes	No	Casual		Left	Diagonally
Orion41	Consumer	Female	Elderly	Figure	Yes	No	Casual		Right	Diagonally
Orion42	Employee	Female	Young adult	Figure	Yes	No	Work	Goal	Centre	Straight
Orion42	Employee	Female	Young adult	Object	No	No	Work	Actor	Right	Straight
Orion43	Business professional	Male	Adult		No	No	Smart		Left	Straight
Orion43	Business professional	Female	Adult		No	No	Smart		Centre	Straight
Orion43	Business professional	Female	Adult		Yes	No	Smart		Centre	Straight

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object)										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age	Gaze	figure	distance	object	Focal point	High-lighting	Goal	Actor	Goal	Actor	Goal	Actor	Goal
Orion43	Business professional	Male	Adult	Adult	Object	No	No	No	Smart				Right			Straight
Orion44	Employee	Female	Adult	Adult	Object	Yes	No	No	Work				Left			Straight
Orion45	Consumer	Male	Adult	Adult	Figure	Yes	No	No	Casual		Actor		Centre			Straight
Orion45	Consumer	Female	Child	Child	Object	No	No	No	Casual		Goal		Centre			Straight
Orion45	Consumer	Female	Child	Child	Camera	No	No	No	Casual		Goal		Centre			Straight
Orion45	Consumer	Male	Child	Child	Camera	No	No	No	Casual		Goal		Right			Straight
Orion45	Consumer	Male	Child	Child	Camera	No	No	No	Casual		Goal		Right			Straight
Orion45	Consumer	Female	Child	Child	Distance	No	No	No	Casual		Goal		Right			Straight
Orion45	Consumer	Female	Child	Child	Figure	No	No	No	Casual		Goal		Right			Straight
Orion45	Consumer	Female	Child	Child	Figure	No	No	No	Casual		Goal		Centre			Straight
Orion45	Consumer	Male	Child	Child	Figure	No	No	No	Casual		Goal		Centre			Straight
Orion45	Consumer	Male	Child	Child	Figure	No	No	No	Casual		Goal		Centre			Straight
Orion45	Consumer	Male	Child	Child	Figure	No	No	No	Casual		Goal		Left			Straight
Orion45	Consumer	Male	Child	Child	Figure	No	No	No	Casual		Goal		Left			Straight
Orion45	Consumer	Male	Child	Child	Distance	No	No	No	Casual		Goal		Left			Straight
Orion45	Consumer	Male	Child	Child	Distance	No	No	No	Casual		Goal		Left			Straight
Orion45	Consumer	Female	Child	Child	Distance	No	No	No	Casual		Goal		Left			Straight
Orion45	Consumer	Female	Child	Child	Distance	No	No	No	Casual		Goal		Left			Straight
Orion45	Consumer	Female	Child	Child	Figure	No	No	No	Casual		Goal		Left			Straight
Orion45	Consumer	Female	Child	Child	Figure	No	No	No	Casual		Goal		Left			Straight
Orion45	Consumer	Male	Child	Child	Distance	No	No	No	Casual		Goal		Left			Straight
Orion46	Consumer	Female	Child	Child	Distance	No	No	No	Casual		Goal		Left			Straight
Orion46	Consumer	Male	Adult	Adult	Distance	Yes	No	No	Casual		Actor		Centre			Straight
Orion46	Consumer	Female	Adult	Adult	Distance	No	No	No	Casual		Goal		Right		Diagonally	Straight
Orion46	Consumer	Female	Adult	Adult	Figure	No	No	No	Casual		Goal		Right			Straight
Orion47	Consumer	Female	Adult	Adult	Figure	No	No	No	Casual		Goal		Left		Diagonally	Straight
Orion47	Consumer	Male	Child	Child	Figure	Yes	No	No	Casual		Actor		Centre			Straight
Orion47	Expert	Female	Adult	Adult	Figure	No	No	No	Work		Goal		Right			Straight
Orion48	Employee	Female	Adult	Adult	Distance	No	No	No	Work		Goal		Left			Straight
Orion48	Employee	Male	Adult	Adult	Distance	Yes	No	No	Work		Actor		Centre			Straight
Orion48	Employee	Male	Adult	Adult	Figure	No	No	No	Work		Goal		Centre			Straight
Orion48	Employee	Male	Adult	Adult	Figure	No	No	No	Work		Goal		Centre			Straight
Orion48	Employee	Male	Adult	Adult	Figure	No	No	No	Work		Goal		Right			Straight
Orion49	Employee	Male	Adult	Adult	Object	Yes	No	No	Work		Actor		Centre			Straight
Orion50	Employee	Male	Adult	Adult	Figure	Yes	No	No	Work		Actor		Left			Straight
Orion50	Employee	Male	Adult	Adult	Figure	No	No	No	Work		Goal		Centre			Straight
Orion50	Employee	Male	Adult	Adult	Figure	No	No	No	Work		Goal		Centre			Straight
Orion50	Employee	Female	Adult	Adult	Camera	No	No	No	Work		Goal		Right			Straight

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object), Spokes-personality, Gender										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age (child, young adult, elderly)	Gaze (camera, figure, distance, object)	Focal point	High-lighting	Clothing (casual, smart, work)	Actor - Goal	Positioning of figures (left/centre/right)	Alignment of figures (straight/diagonally)						
Orion51	Consumer	Female	Adult	Figure	Yes	No	Casual	Goal	Centre	Straight						
Orion51	Employee	Male	Adult	Figure	No	No	Work	Actor	Right	Straight						
Pfizer2	Employee	Male	Adult	Object	Yes	No	Work	Actor	Right	Diagonally						
Pfizer3	Consumer	Male	Adult	Figure	No	No	Smart	Goal	Left	Straight						
Pfizer3	Consumer	Male	Child	Camera	Yes	No	Smart	Actor	Centre	Straight						
Pfizer4	Consumer	Male	Child	Object	Yes	No	Can't see	Actor	Right	Diagonally						
Pfizer5	Expert	Female	Adult	Figure	Yes	No	Work	Actor	Left	Straight						
Pfizer5	Consumer	Male	Adult	Figure	No	No	Casual	Goal	Right	Diagonally						
Pfizer5	Consumer	Male	Adult	Figure	No	No	Can't see	Actor	Right	Straight						
Pfizer6	Consumer	Female	Child	Distance	No	No	Can't see	Actor	Left	Diagonally						
Pfizer6	Consumer	Female	Adult	Distance	Yes	No	Can't see	Actor	Right	Diagonally						
Pfizer7	Consumer	Male	Adult	Distance	No	No	Casual	Actor	Left	Straight						
Pfizer7	Consumer	Female	Child	Figure	Yes	No	Casual	Goal	Right	Straight						
Pfizer8	Consumer	Male	Adult	Figure	Yes	No	Casual	Actor	Centre	Diagonally						
Pfizer9	Consumer	Female	Young adult	Distance	Yes	No	Casual	Actor	Centre	Straight						
Pfizer13	Employee	Male	Adult	Distance	Yes	No	Work	Actor	Right	Straight						
Pfizer17	Business professional	Male	Adult	Distance	Yes	No	Smart	Actor	Centre	Straight						
Pfizer19	Business professional	Male	Adult	Distance	Yes	No	Smart	Actor	Centre	Diagonally						
Pfizer21	Business professional	Male	Adult	Object	Yes	No	Smart	Actor	Left	Straight						
Pfizer22	Business professional	Male	Adult	Object	No	No	Smart	Actor	Left	Straight						
Pfizer22	Business professional	Male	Adult	Object	Yes	No	Smart	Actor	Centre	Straight						
Pfizer23	Business professional	Male	Adult	Figure	No	No	Smart	Actor	Left	Straight						
Pfizer23	Business professional	Male	Adult	Distance	Yes	No	Smart	Actor	Centre	Straight						
Pfizer24	Business professional	Male	Adult	Object	No	No	Smart	Actor	Left	Straight						
Pfizer24	Business professional	Male	Adult	Object	No	No	Smart	Actor	Centre	Straight						

<i>Picture code</i>	<i>Spokes-personality</i>	<i>Gender</i>	<i>Age (child, young adult, adult, elderly)</i>	<i>Gaze (camera, figure, distance, object)</i>	<i>Focal point</i>	<i>High-lighting</i>	<i>Clothing (casual, smart, work)</i>	<i>Actor – Goal</i>	<i>Positioning of figures (left/centre/right)</i>	<i>Alignment of figures (straight/diagonally)</i>
Pfizer24	Business professional	Male	Adult	Object	No	No	Smart		Centre	Straight
Pfizer24	Business professional	Male	Adult	Object	Yes	No	Smart		Right	Straight
Pfizer26	Employee	Female	Adult	Object	Yes	No	Work	Actor	Centre	Straight
Pfizer26	Employee	Female	Adult	Object	No	No	Work	Actor	Centre	Diagonally
Pfizer27	Business professional	Male	Adult	Object	No	No	Smart		Left	Straight
Pfizer27	Business professional	Female	Adult	Object	Yes	No	Smart	Actor	Centre	Diagonally
Pfizer27	Business professional	Male	Adult	Object	No	No	Smart		Centre	Diagonally
Pfizer27	Business professional	Female	Adult	Object	No	No	Smart	Actor	Right	Diagonally
Pfizer28	Employee	Male	Young adult	Distance	No	No	Work		Left	Diagonally
Pfizer28	Employee	Female	Young adult	Distance	No	No	Work	Goal	Left	Diagonally
Pfizer28	Employee	Female	Young adult	Distance	No	No	Work	Goal	Left	Diagonally
Pfizer28	Business professional	Male	Adult	Distance	Yes	No	Smart	Goal	Centre	Straight
Pfizer28	Employee		Young adult	Distance	No	No	Work	Goal	Left	Diagonally
Pfizer29	Expert	Male	Adult	Object	Yes	No	Work	Actor	Right	Diagonally
Pfizer30	Business professional	Female	Adult	Distance	Yes	No	Smart	Actor	Left	Straight
Pfizer30	Business professional	Male	Adult	Figure	No	No	Smart		Centre	Diagonally
Pfizer30	Business professional	Male	Adult	Figure	No	No	Smart		Centre	Straight
Pfizer30	Business professional	Male	Adult	Figure	No	No	Smart		Right	Diagonally
Pfizer30	Business professional	Male	Adult	Figure	No	No	Smart		Right	Straight
Pfizer30	Business professional	Male	Adult	Figure	No	No	Smart		Right	Diagonally
Pfizer30	Business professional	Female	Adult	Figure	No	No	Smart		Right	Diagonally

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object), Focal point, High-lighting										Clothing (casual, smart, work)	Actor – Goal	Positioning of figures (left/centre/right)	Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age	Gaze	young adult, elderly)	distance, object)	Focal point	High-lighting	Casual	Smart				
Pfizer31	Employee	Male	Adult	Object	No	No	No	Casual	Goal	Left	Diagonally			
Pfizer31	Employee	Male	Adult	Figure	Yes	No	No	Casual	Actor	Centre	Diagonally			
Pfizer31	Consumer	Male	Child	Figure	No	No	No	Casual	Actor	Right	Straight			
Pfizer31	Consumer	Male	Adult	Object	No	No	No	Casual	Actor	Right	Straight			
Pfizer32	Employee	Female	Adult	Object	Yes	No	No	Work	Actor	Left	Straight			
Pfizer32	Employee	Female	Adult	Object	Yes	No	No	Work	Actor	Right	Straight			
Pfizer33	Consumer	Male	Adult	Distance	Yes	No	No	Casual	Actor	Left	Straight			
Pfizer33	Consumer	Female	Adult	Distance	No	No	No	Casual	Actor	Centre	Straight			
Pfizer33	Consumer	Female	Child	Distance	No	No	No	Casual	Actor	Right	Straight			
Pfizer34	Consumer	Male	Adult	Distance	Yes	No	No	Casual	Actor	Left	Straight			
Pfizer34	Consumer	Female	Child	Distance	No	No	No	Casual	Actor	Right	Straight			
Pfizer35	Expert	Male	Adult	Figure	Yes	No	No	Work	Actor	Centre	Straight			
Pfizer35	Consumer	Female	Adult	Figure	No	No	No	Casual	Actor	Right	Straight			
Pfizer36	Consumer	Male	Child	Figure	No	No	No	Can't see	Actor	Left	Diagonally			
Pfizer36	Consumer	Male	Adult	Object	Yes	No	No	Smart	Goal	Centre	Diagonally			
Pfizer38	Consumer	Male	Child	Object	Yes	No	No	Casual	Goal	Left	Diagonally			
Pfizer38	Consumer	Male	Child	Object	No	No	No	Casual	Goal	Centre	Straight			
Pfizer38	Consumer	Male	Child	Object	No	No	No	Casual	Goal	Right	Straight			
Pfizer40	Consumer	Female	Child	Object	Yes	No	No	Casual	Goal	Left	Diagonally			
Pfizer40	Consumer	Female	Adult	Object	No	No	No	Casual	Actor	Right	Diagonally			
Pfizer41	Expert	Female	Adult	Object	Yes	No	No	Work	Actor	Centre	Straight			
Pfizer42	Business professional	Female	Young adult	Figure	No	No	No	Smart	Goal	Left	Straight			
Pfizer42	Business professional	Female	Young adult	Figure	No	No	No	Smart	Goal	Left	Straight			
Pfizer42	Business professional	Male	Young adult	Figure	Yes	No	No	Smart	Actor	Right	Straight			
Pfizer42	Business professional	Female	Young adult	Figure	No	No	No	Smart	Goal	Right	Straight			
Pfizer43	Employee	Female	Young adult	Figure	Yes	No	No	Work	Actor	Centre	Diagonally			
Pfizer44	Employee	Male	Adult	Figure	Yes	No	No	Work	Actor	Centre	Straight			
Pfizer44	Employee	Female	Adult	Figure	No	No	No	Work	Goal	Right	Straight			
Pfizer45	Consumer	Child	Eyes closed	Eyes closed	No	No	No	Can't see	Goal	Centre	Diagonally			
Pfizer45	Consumer	Adult	Eyes closed	Eyes closed	Yes	No	No	Can't see	Actor	Centre	Diagonally			

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object)										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age	Gaze	distance	object	Focal point	High-lighting	Casual	Smart	Work	Goal	Actor	Goal	Positioning	Alignment
Pfizer47	Expert		Adult		Object	Yes	No	Can't see			Actor		Actor	Left	Straight	
Pfizer48	Consumer	Female	Child		Object	No	No	Casual			Goal		Goal	Left	Straight	
Pfizer48	Consumer	Male	Elderly		Object	Yes	No	Casual			Actor		Actor	Centre	Straight	
Pfizer48	Consumer	Female	Child		Object	No	No	Casual			Goal		Goal	Right	Straight	
Pfizer49	Expert		Adult			No	No	Work			Actor		Actor	Left	Straight	
Pfizer49	Consumer	Female	Adult		Figure	Yes	No	Casual			Goal		Goal	Centre	Straight	
Pfizer49	Consumer		Child		Figure	No	No	Casual			Actor		Actor	Centre	Straight	
Pfizer50	Expert		Adult			No	No	Work			Actor		Actor	Left	Diagonally	
Pfizer50	Consumer	Female	Adult		Figure	Yes	No	Casual			Goal		Goal	Centre	Diagonally	
Pfizer50	Consumer		Child		Figure	No	No	Casual			Goal		Goal	Centre	Straight	
Pfizer51	Consumer	Male	Young adult		Object	Yes	No	Smart			Actor		Actor	Centre	Straight	
Pfizer52	Employee	Male	Adult		Object	Yes	No	Work			Actor		Actor	Centre	Straight	
Pfizer53	Consumer	Male	Adult		Object	Yes	No	Casual			Goal		Goal	Centre	Diagonally	
Pfizer53	Consumer	Female	Child		Object	No	No	Casual			Actor		Actor	Centre	Diagonally	
Pfizer54	Consumer	Female	Child		Figure	Yes	No	Casual			Actor		Actor	Centre	Diagonally	
Pfizer54	Consumer	Female	Elderly		Figure	No	No	Can't see			Goal		Goal	Centre	Diagonally	
Pfizer55	Employee	Female	Adult		Object	No	No	Work			Actor		Actor	Centre	Straight	
Pfizer55	Employee	Male	Adult		Object	Yes	No	Work			Actor		Actor	Right	Straight	
Pfizer56	Employee	Female	Adult		Object	Yes	No	Work			Actor		Actor	Centre	Straight	
Sanofi1	Consumer	Male	Adult		Figure	No	No	Casual			Actor		Actor	Left	Diagonally	
Sanofi1	Consumer	Male	Adult		Object	No	No	Casual						Left	Diagonally	
Sanofi1	Consumer	Male	Adult		Object	No	No	Casual						Left	Diagonally	
Sanofi1	Consumer	Male	Adult		Object	No	No	Casual						Centre	Diagonally	
Sanofi1	Consumer	Male	Adult		Figure	No	No	Casual			Goal		Goal	Centre	Diagonally	
Sanofi1	Consumer	Male	Child		Distance	No	No	Casual			Goal		Goal	Centre	Diagonally	
Sanofi1	Consumer	Female	Adult		Distance	Yes	No	Casual			Actor		Actor	Right	Diagonally	
Sanofi3	Consumer	Male	Adult			Yes	No	Casual			Actor		Actor	Centre	Diagonally	
Sanofi4a	Expert	Female	Adult		Object	Yes	No	Work			Actor		Actor	Left	Diagonally	
Sanofi4a	Consumer	Male	Adult		Distance	No	No	Casual			Goal		Goal	Right	Straight	
Sanofi4b	Consumer	Female	Adult		Figure	Yes	No	Casual						Left	Straight	
Sanofi4b	Consumer	Female	Adult		Figure	No	No	Casual			Goal		Goal	Centre	Straight	
Sanofi4b	Expert	Male	Adult		Figure	No	No	Casual			Actor		Actor	Centre	Diagonally	
Sanofi4b	Consumer	Female	Adult		Distance	No	No	Casual						Centre	Straight	

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object)										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	Age	Gaze	figure, distance, object	Focal point	High-lighting	Casual, smart, work	Actor - Goal	Positioning of figures (left/centre/right)	Alignment of figures (straight/diagonally)					
Sanofi4b	Consumer	Female	Adult	Distance	No	No	Casual		Right	Straight						
Sanofi4b	Consumer	Female	Adult	Distance	No	No	Casual		Right	Straight						
Sanofi5	Employee	Male	Adult	Object	Yes	No	Work	Actor	Centre	Diagonally						
Sanofi6	Employee	Male	Adult	Object	Yes	No	Work	Actor	Right	Diagonally						
Sanofi8	Consumer	Female	Child	Distance	Yes	No	Can't see	Goal	Left	Diagonally						
Sanofi9	Expert	Female	Adult	Object	No	No	Work	Actor	Left	Straight						
Sanofi9	Consumer	Female	Adult	Object	Yes	No	Casual	Goal	Right	Straight						
Sanofi10	Consumer	Male	Child	Distance	No	No	Casual		Left	Straight						
Sanofi10	Consumer	Female	Adult	Distance	No	No	Casual		Left	Straight						
Sanofi10	Consumer	Male	Child	Distance	Yes	No	Casual	Actor	Left	Straight						
Sanofi10	Consumer	Female	Adult	Distance	No	No	Casual		Centre	Straight						
Sanofi11	Consumer	Female	Adult	Figure	Yes	No	Casual	Actor	Left	Diagonally						
Sanofi11	Consumer	Male	Child	Eyes closed	No	No	Casual	Goal	Right	Diagonally						
Sanofi12	Consumer	Female	Adult	Figure	No	No	Casual	Goal	Left	Straight						
Sanofi12	Consumer	Female	Child	Distance	No	No	Casual		Left	Straight						
Sanofi12	Consumer	Female	Adult	Figure	No	No	Casual	Goal	Left	Straight						
Sanofi12	Expert	Male	Adult	Object	Yes	No	Smart	Actor	Centre	Straight						
Sanofi12	Consumer	Male	Adult	Figure	No	No	Casual	Goal	Right	Diagonally						
Sanofi12	Consumer	Male	Adult	Figure	No	No	Casual	Goal	Right	Diagonally						
Sanofi13	Employee	Male	Adult	Object	Yes	No	Work	Actor	Centre	Diagonally						
Sanofi14	Consumer	Male	Child	Figure	No	No	Casual	Goal	Left	Straight						
Sanofi14	Consumer	Male	Child	Figure	Yes	No	Casual	Goal	Left	Straight						
Sanofi14	Consumer	Male	Child	Object	No	No	Casual		Centre	Straight						
Sanofi14	Consumer	Male	Child	Figure	No	No	Casual	Goal	Centre	Straight						
Sanofi14	Consumer	Male	Young adult	Figure	No	No	Casual	Goal	Centre	Diagonally						
Sanofi14	Consumer	Male	Young adult	Figure	No	No	Casual	Goal	Right	Straight						
Sanofi14	Consumer	Male	Child	Object	No	No	Casual	Actor	Right	Diagonally						
Sanofi14	Business professional	Male	Adult	Object	Yes	No	Smart	Actor	Centre	Straight						
Sanofi15	Consumer	Female	Adult	Object	No	No	Casual	Goal	Right	Diagonally						
Sanofi16	Consumer	Male	Child	Distance	No	No	Can't see		Left	Diagonally						
Sanofi16	Consumer	Male	Elderly	Distance	Yes	No	Casual		Left	Straight						
Sanofi17	Consumer	Male	Child	Camera	Yes	No	No clothes	Goal	Centre	Straight						

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object)										Clothing (casual, smart, work)			Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)
	Spokes-personality	Gender	young adult, elderly)	figure, distance, object)	Focal point	High-lighting	Casual, smart, work)	Actor – Goal	(left/centre/right)	(straight/diagonally)						
Sanofi18	Consumer	Female	Young adult	Distance	Yes	No	Casual		Centre	Straight						
Sanofi19	Consumer	Female	Adult	Object	Yes	No	Casual	Goal	Left	Straight						
Sanofi19	Consumer	Male	Child	Object	No	No	Casual		Left	Straight						
Sanofi19	Consumer	Male	Child	Object	No	No	Casual		Left	Straight						
Sanofi19	Consumer	Male	Child	Camera	No	No	Casual		Centre	Straight						
Sanofi19	Consumer	Male	Child	Distance	No	No	Casual		Centre	Straight						
Sanofi19	Consumer	Male	Child	Camera	No	No	Casual		Centre	Straight						
Sanofi19	Consumer	Male	Child	Camera	No	No	Casual		Centre	Straight						
Sanofi19	Consumer	Male	Child	Figure	No	No	Casual		Right	Straight						
Sanofi19	Expert	Male	Adult	Object	No	No	Work	Actor	Right	Diagonally						
Sanofi20	Consumer	Female	Adult		No	No	Casual		Left	Straight						
Sanofi20	Consumer	Male	Child	Camera	Yes	No	Casual		Centre	Diagonally						
Sanofi23	Consumer	Male	Child	Camera	No	No	Casual		Left	Diagonally						
Sanofi23	Consumer	Female	Elderly	Distance	Yes	No	Casual		Centre	Straight						
Sanofi23	Consumer	Female	Child	Eyes closed	No	No	Casual		Right	Straight						
Sanofi23	Consumer	Male	Child	Distance	No	No	Casual		Right	Straight						
Sanofi26	Employee				No	No	Work		Centre	Straight						
Sanofi26	Employee	Male	Young adult	Distance	Yes	No	Work		Right	Straight						
Sanofi27	Expert	Male	Adult		Yes	No	Work	Actor	Right	Straight						
Sanofi28	Business professional	Male	Adult	Distance	Yes	No	Smart		Right	Diagonally						
Sanofi29	Employee	Male	Young adult	Object	Yes	No	Work	Actor	Centre	Straight						
Sanofi30	Employee	Male	Young adult	Object	Yes	No	Work	Actor	Centre	Diagonally						
Sanofi32	Employee				No	No	Work	Actor	Left							
Sanofi33	Employee				Yes	No	Work	Actor	Right							
Sanofi34	Consumer	Female	Elderly		Yes	No	Casual		Right							
Sanofi35	Consumer	Female	Adult	Object	Yes	No	Casual	Actor	Centre	Diagonally						
Sanofi36	Expert		Adult	Object	No	No	Work		Left	Straight						
Sanofi36	Expert		Adult	Object	Yes	No	Work	Actor	Left	Straight						
Sanofi36	Expert		Adult	Object	No	No	Work		Centre	Diagonally						
Sanofi36	Expert		Adult	Object	No	No	Work	Actor	Centre	Straight						
Sanofi36	Expert		Adult	Object	No	No	Work	Actor	Right	Straight						
Sanofi36	Expert		Adult	Object	No	No	Work		Right	Straight						

Picture code	Age (child, young adult, elderly), Gaze (camera, figure, distance, object), Focal point lighting										Clothing (casual, smart, work)		Positioning of figures (left/centre/right)		Alignment of figures (straight/diagonally)	
	Spokes-personality	Gender	Age	Gaze	figure	distance	object	Focal point	lighting	High-lighting	Work	Actor - Goal	Actor - Goal	Left	Right	Alignment
Sanofi37	Employee	Male	Adult	Object	Object	Distance	Object	Yes	No	No	Work	Actor	Actor	Left	Left	Diagonally
Sanofi38	Business professional	Male	Adult	Distance	Distance	Distance	Distance	Yes	No	No	Smart	Actor	Actor	Centre	Centre	Straight
Sanofi39	Consumer	Male	Adult	Distance	Distance	Distance	Distance	No	No	No	Casual			Left	Left	Straight
Sanofi39	Consumer	Male	Adult	Distance	Distance	Distance	Distance	No	No	No	Casual			Left	Left	Straight
Sanofi39	Consumer	Male	Adult	Distance	Distance	Distance	Distance	No	No	No	Casual	Actor	Actor	Left	Left	Straight
Sanofi39	Business professional	Male	Adult	Distance	Distance	Distance	Distance	Yes	No	No	Smart	Goal	Goal	Centre	Centre	Straight
Sanofi39	Business professional	Male	Adult	Figure	Figure	Figure	Figure	No	No	No	Smart			Centre	Centre	Straight
Sanofi40	Consumer	Male	Adult	Figure	Figure	Figure	Figure	Yes	No	No	Casual	Actor	Actor	Centre	Centre	Diagonally
Sanofi40	Consumer	Male	Child	Distance	Distance	Distance	Distance	No	No	No	Casual	Goal	Goal	Centre	Centre	Diagonally
Sanofi42	Consumer	Male	Adult	Distance	Distance	Distance	Distance	No	No	No	Casual			Left	Left	Straight
Sanofi42	Consumer	Male	Child	Distance	Distance	Distance	Distance	No	No	No	Casual			Centre	Centre	Straight
Sanofi42	Consumer	Female	Adult	Object	Object	Object	Object	Yes	No	No	Casual	Goal	Goal	Centre	Centre	Diagonally
Sanofi42	Consumer	Female	Child	Object	Object	Object	Object	No	No	No	Casual	Actor	Actor	Right	Right	Diagonally
Sanofi43	Business professional	Female	Adult	Figure	Figure	Figure	Figure	Yes	No	No	Smart	Goal	Goal	Left	Left	Straight
Sanofi43	Business professional	Female	Adult	Figure	Figure	Figure	Figure	No	No	No	Smart	Actor	Actor	Right	Right	Diagonally
Sanofi44	Consumer	Female	Adult	Figure	Figure	Figure	Figure	Yes	No	No	Casual	Goal	Goal	Left	Left	Straight
Sanofi44	Consumer	Male	Child	Figure	Figure	Figure	Figure	No	No	No	Casual	Actor	Actor	Right	Right	Diagonally
Sanofi47	Consumer	Female	Adult	Figure	Figure	Figure	Figure	No	No	No	Smart	Actor	Actor	Left	Left	Straight
Sanofi47	Consumer	Female	Adult	Figure	Figure	Figure	Figure	Yes	No	No	Can't see	Goal	Goal	Right	Right	Diagonally
Sanofi48	Expert	Female	Adult	Figure	Figure	Figure	Figure	No	No	No	Work	Actor	Actor	Left	Left	Diagonally
Sanofi48	Consumer	Male	Adult	Figure	Figure	Figure	Figure	Yes	No	No	Smart	Goal	Goal	Right	Right	Straight
Sanofi49	Expert	Male	Adult	Figure	Figure	Figure	Figure	No	No	No	Work	Actor	Actor	Left	Left	Straight
Sanofi49	Consumer	Female	Adult	Figure	Figure	Figure	Figure	No	No	No	Casual			Centre	Centre	Diagonally
Sanofi49	Consumer	Female	Child	Object	Object	Object	Object	Yes	No	No	Casual	Goal	Goal	Right	Right	Straight
Sanofi50	Consumer	Male	Adult	Figure	Figure	Figure	Figure	No	No	No	Smart	Actor	Actor	Left	Left	Diagonally
Sanofi50	Consumer	Male	Child	Distance	Distance	Distance	Distance	Yes	No	No	Can't see	Goal	Goal	Left	Left	Straight
Sanofi51	Consumer	Female	Adult	Figure	Figure	Figure	Figure	No	No	No	Can't see	Actor	Actor	Left	Left	Straight
Sanofi51	Consumer	Female	Child	Figure	Figure	Figure	Figure	No	No	No	Casual			Centre	Centre	Straight
Sanofi51	Consumer	Female	Child	Figure	Figure	Figure	Figure	Yes	No	No	Casual	Goal	Goal	Right	Right	Straight

