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The Effect of Visible Facial Difference on Personal Space During Encounters with the General Public

Abstract

Previous research has found that people with visible difference are granted more physical space than people without visible difference during encounters with the general public. The current study aimed to examine whether given significant sociocultural changes, this remains the case in contemporary Australia. The personal space afforded to a person with a visible difference (with a temporary difference- a scar and a permanent difference- a strawberry hemangioma) or a person without a visible difference by 408 pedestrians on a busy pedestrian walkway in the central business district of Adelaide, Australia was measured. This was a replication and extension of a study by Rumsey, Bull and Gahagan (1982). Pedestrians stood no further away from the model in the visibly different conditions than in the non-visibly different condition. Pedestrians stood an average of 128cm away in the control condition, 120cm away in the scar condition and 140cm away in the birthmark condition. People did not stand to the non-visibly different (left) side of the model more frequently in the visibly different conditions than in the non-visibly different condition. As the original research by Rumsey et al. is frequently cited as representing the current situation for people with visible difference, failing to replicate the result is significant. Changes may be due to either recent socio-cultural changes promoting inclusion of disability or increasing social taboo against expressing overt prejudice.

Keywords: visible difference, disfigurement, personal space, proxemic behaviour, general public

This research seeks to fill a gap in the existing literature on people with visible difference. The research focuses on an area known to be problematic for people with visible difference– encounters with strangers. Autobiographic accounts and empirical research show that individuals with physical disabilities and visual difference experience social interactions that are problematic on a number of dimensions (Hebl & Kleck, 2003). These encounters can be exceptionally challenging because people often do not know how to act in the face of difference. People with visual difference experience awkward glances, uncomfortable stares, excessive aid and are granted more personal space than those without visible difference (Rumsey, 2002). This study seeks to assess the proxemic behaviour (personal space) of the public towards visible difference on a busy street in Adelaide, Australia.

In classical times, gods were thought to make 'monstrous' infants, (a description used at the time for congenital birth defects) for their own amusement, or to punish or warn mankind (Shaw, 1981). In the sixteenth and seventeenth centuries ballads about monstrous births graphically depicted abnormalities such as a child's bestial 'gaspyng mouth', a result of the 'filthy talke' and 'poysoned speech' of its mother (Anon, 1614). Thus, the birth of a physically different child served as an opportunity to proclaim the sin of a community or an individual (usually the mother). Such infants were displayed for money at village fairs on market days (Niccoli, 1990). This trend gave rise to the formation of the freak show in the 1840s. P.T Barnum pioneered the exhibition of physically different people in the American Museum in New York City. Such people were ridiculed and debased without restraint by the paying public. For the next century, the freak show remained a profitable, proliferate and conventionalised form of amusement in Europe and the US (Gerber, 1992).

The eugenics movement, in which countries engaged in forms of politics designed to control national identities, stemmed from the desire to protect the nation from degeneration (Turner & Stagg, 2006). The movement became widespread by the end of the First World

War in countries as disparate as America, France, Sweden, Norway, Scandinavia, Switzerland, Russia, and Germany, among others. However, improving the lives of some people resulted in significant consequences or death for others: in America and Russia millions were sterilized against their will, including certain racial populations and the disabled, and in Nazi Germany the visibly different, those with mental health problems or learning disabilities, gypsies, Jewish people and homosexual people were sent to death camps (Rumsey, 2002).

These are all examples of how reactions to people with visible difference are deeply imbedded in culture. In the aftermath of WWII, the horrific realities of eugenics prompted a shift in culture in Western societies to a more inclusive system, espousing tolerance for different races, sexes and disabilities. Moving away from the medical model that birthed eugenics, this social model acknowledges society itself is responsible for disabling people. This model of inclusion and social responsibility provides hope for the improvement of the quality of lives of people with visible difference in contemporary society (Harris & Levin, 1998).

However, this cultural shift is incomplete, with strong pockets of prejudice remaining. For example, there is a cross-disciplinary consensus that in the last 50 years increasing social taboos against expressing overt racism have led to a more subtle and covert form of racism (see Augoustinos & Every, 2007 for a review). This could well hold true for other forms of prejudice, such as sexism and prejudice towards the disabled. Eugenics, for example, are not entirely a thing of the past; there are still discrete pockets of eugenic practices (e.g., sterilization of intellectually disabled girls, Brady, 2001).

How does it feel to be visibly different in a culture in which even those who are not visibly different report high levels of appearance concern? In his classic book *Stigma: Notes on the Management of Spoiled Identity*, Goffman, (1963, 4-5) suggests that all human

differences are potentially stigmatisable and may be devalued by society. Goffman distinguishes between three types of stigma: abominations of the body, blemishes of individual character and tribal stigma of race, nation and religion. In all three, the stigmatised person possesses ‘an attribute that is deeply discrediting’. Goffman contends that visibility of a particular stigma is a crucial factor when determining whether an individual is to be stigmatised or not. Attributes such as skin colour, or certain physical impairments, are readily visible so their bearer can be immediately discredited. The more prominent the stigma, the more likely it will affect the individual’s social interactions.

Those who are not stigmatised are called ‘normals’ and are invested in utilizing stigma to further demoralize the stigmatised as well as ‘to impute a wide range of imperfections on the basis of the original one’. In fact, Goffman (1963, 5) states, the stigmatised individual is often viewed as less human and is likely to suffer a variety of discrimination that could reduce his or her life possibilities. The opposite is true as well- the ‘beautiful’ are likely to receive positive attention that extends their life possibilities (Synott, 1993). However, Eagly, Ashmore, Makhijani and Longo (1991) found that this beauty-is-good-effect was only moderate in most cases, and depended on the particular inference. For example, beautiful people were thought to be more socially competent but less concerned for others. However, the evidence suggests that the influence of physical appearance permeates most realms of life.

Disability studies have departed from Goffman’s model in the last thirty years and offer a conceptual model whereby difference is viewed as a social construct, thereby problematising society rather than the individual (Harris & Levin, 1998). Disability studies are about inclusion and power. The aim is to eliminate physical and social barriers that create impairment and promote social wellbeing within mainstream society. In this way, disability studies do not view wellbeing as the absence of difference, but rather the control to live a satisfying life with difference (Rioux, 1994).

Following the trend of appearance research, research on the visibly different began in the 1970's primarily in the US and the UK. Research from this era demonstrates that visibly different people are avoided, stared at, and stigmatised. Rumsey, Bull, and Gahagan (1982) investigated the proxemic behaviour of 450 members of the general public in London during encounters with a model in three different conditions - with a facial birthmark (permanent condition), with facial scarring consistent with a vehicular accident (temporary condition), and a control condition with no visible difference. They reported people stood significantly further away from the model in the conditions with visible difference than the control condition and preferred to stand on the non-disfigured side of the model (all visual difference was on the right side of the model). In addition, people stood further away from the birthmark condition than from the scarring condition. This finding corroborates previous research by Wolfgang and Wolfgang (1968) that those with temporary visual differences are approached at closer distances than those with permanent visual differences. A later study by Houston and Bull (1994) examined proxemic behaviour of the general public in the setting of a London public bus. People chose to sit further away from a model with a port wine stain, a congenital birthmark on the face, than the model with scarring or the non-visibly different model, thus corroborating the finding that people with visible difference are avoided.

There is a paucity of research into the area of appearance in Australia. The majority of the research focuses on body image of young women and is concentrated in the last 10 to 20 years. Only a handful of studies have investigated the situation of the visibly different. One Australian study (Carroll & Shute, 2005) comparing victimisation of school children with and without craniofacial conditions found that the children with craniofacial conditions were not targeted more frequently than those from the general population, although a fair percentage of all children were targeted, indicating bullying is a significant issue for Australian children, and thus a significant issue for the visibly different. The children with craniofacial conditions

who were targeted often experienced certain aggressive behaviours identified from the craniofacial literature, including being stared and pointed at, asked personal questions and being afforded more physical space (Changing Faces, 2000). In addition, a disproportionate number of these with moderate-severe as opposed to mild or severe craniofacial disfigurement were recipients of verbal aggression (Carroll & Shute ,2005). These findings point to the complexity of stigma, and to the numerous factors that contribute to it, including social skills, degree of visible difference, and setting (Rumsey, 2002). These results may also indicate a changing society in which more inclusive societal and health care models for those who are visibly different or disabled have reduced the stigma associated with being visibly different.

Study aims and hypotheses

The current study examines whether given sociocultural changes over the past few decades, the general public affords a person with facial difference more physical space. As there is very little information about the experience of people with a visible difference in Australia, replicating and extending Rumsey, Bull and Gahagan's (1982) study into the proxemic behaviour of the general public in Australia will shed light on the impact of cultural and societal changes on the stigmatisation of visible differences.

The extension of the study includes adding a second dimension of distance measure to the data. Rumsey et al. looked at how far pedestrians stood to the left or right of the model, this study evaluates how far pedestrians stand to the left or right of the model (AG) and how far ahead or behind the model they stand. Collecting data on the position of the pedestrians in this manner allows the calculation of the exact distance the pedestrian chose to stand from the model. It also allows the calculation of the percentage of people standing directly in front (within 45° of either side of the nose) of the model. It is assumed that people standing within this range are in a position to have a good view of the visible difference. The possibility exists

that people will stare at the model from side angles, however it is difficult to look from an obtuse angle, so the test is limited to those standing within 45° of either side of the nose. Therefore, two of the specific complaints of the visibly different can be tested: whether or not they are avoided, and whether they are stared at.

It is predicted that the model made up to be visibly different will not be afforded more space than the model without make up, that the majority of pedestrians will stand randomly around the model and not to either her left or right and that there will not be a significant difference in the number of people who stand directly facing, and therefore in a position to look at the visible difference, in the three conditions. These hypotheses are based on the premise that the western world has undergone significant changes in relation to inclusion of disability in the time period from 1982 to the present, and these changes have either reduced the stigma associated with visible difference or the behaviour associated with the stigma.

Method

Participants

The pedestrian traffic walking towards the model's face and subsequently stopped by a traffic light on the corner of Pirie and Gawler Streets, Adelaide, acted as participants (N = 408, 234 women, 174 men). In all, 44 pedestrians were excluded due to one of the following:

1. Blindness (one person)
2. Other pedestrians blocking their view of the model. (six people)
3. Overt preoccupation with mobile phone, MP3 players, or any similar device. (15 people)
4. Interruptions from nearby people or activities. (two people)
5. A second or subsequent walk past the model. (two people)
6. Age – all participants appeared to be over 18. (except one person)
7. Significant disagreement between the two observers. (17 people)

Procedure and Materials

The method was derived from Rumsey, Bull, and Gahagan's study (1982) which also used a female target. The model's appearance was varied in the three conditions. In the control condition, the model, an adult Caucasian female in her 30's, was without facial disfigurement (AG). In conditions two and three, the model was made up with facial disfigurement by a professional makeup artist, following the written description from the Rumsey et al. study. In condition two the model had scarring on the right half of her face and in condition three the model had a hemangioma (a common, non-cancerous vascular outgrowth) on the right half of her face. The dimensions of both of the disfigurements were roughly 7 cm by 5 cm, although in order to appear realistic, the hemangioma had rounded edges with discolouration surrounding it, and the scar was elongated, thus varying the size slightly. The colours in the makeup were matched to ensure equal visibility of the two conditions (see Figures 1 and 2 for photographs). The model was wearing the same clothing in all conditions. Caution was taken to avoid smiling and eye contact with the passersby. The weather was fine on all occasions. The model periodically checked her watch and cell phone in order to appear to be waiting for someone.

Figures 1 and 2 about here

Photographs of the model in the birthmark and scar conditions, respectively

A pilot test showed the makeup was visible from a distance of 2.5 metres and the facial difference appeared realistic to observers.

The setting for the experiment was an intersection with heavy pedestrian traffic during a busy weekday lunch hour in the central business district of Adelaide, Australia, when it is

not abnormal to see stationary people awaiting others. The Rumsey et al. study was also conducted in a busy city street (London) at lunch hour. The model was placed facing the majority of the foot traffic (see Figure 3) at the corner of a four-way intersection between narrow streets, a similar placement to the UK study. When the foot traffic surrounding the model was stopped by a "Don't Walk" sign, the position of the first five pedestrians was noted. Chalk lines along the curb designated 22 cm distances, and were clearly observable to the two observers placed diagonally across the street, but not to the pedestrians placed adjacent to the model (see Figure 3). The model stood at coordinates 0,0. The chalk marks surrounded the corner, enabling the observers to note the x and y coordinates of the participants' position. This is an extension of the method in the original experiment, which recorded only the x distance (to the left or right) from the model. The x and y coordinates were labelled as both negative and positive, with a negative x indicating the pedestrian stood to the right of the model. The x coordinate ranged from -10 to 10. A negative y coordinate indicated the pedestrian stood behind the model, in the street. The y coordinate ranged from -2 to 10.

The observers, who were holding data collection sheets encased in the covers of crossword puzzle books, collected data for up to five participants for every time the walk light halted pedestrian flow. Each pedestrian was given an arrival order number from 1-5, and an x and y coordinate. The sex of each pedestrian was noted. The x,y coordinates were then used to calculate the exact distance of the pedestrian from the model.

The data were checked for reliability. Inter-observer reliability was high ($r = 0.94$, $p < .05$) for the recording all data (order of arrival at the walk sign, sex, and x and y positions). If the two observers' recordings of the position of the pedestrian differed more than 44 cm (two chalk marks), the data were excluded. If there was a smaller difference, the difference was

averaged. This differs from the Rumsey et al. (1982) method, which employed only one observer.

Figure 3 about here

Diagram of the location of the study

Results

Distance of pedestrians from model

In order to assess the hypothesis positing that people would not stand further away from the model during the visibly different conditions than during the control condition, the data were checked for the assumptions of analysis of variance (a statistical test of whether the means of several groups are equal). Descriptive statistics for position of pedestrians at the walk sign by order of arrival using the x variable (indicating distance to the left or right of the model) and the c variable, (indicating exact distance from the model) are located in Tables 1 and 2 respectively. Due to insufficient numbers of pedestrians arriving in position five, this category was eliminated from the analysis.

Table 1 about here

Normality and homogeneity of variance assumptions were assessed by examining histograms and the skewness and kurtosis for each of the dependent variables. Both assumptions were violated, and although ANOVA is robust to the violation of these assumptions, the Levene's statistic for arrival order (F (4,403) = 8.28, p<. 05) demonstrated the possibility that the data were not behaving in an independent manner. Although the research design was not a repeated measures design, there was intra-correlation of the arrival

order data. Therefore, the ANOVA's assumption of independence was violated and a linear mixed model was implemented in its place. The linear mixed model has no assumption of independence.

Table 2 about here

A repeated measures hierarchal nested mixed model for the dependent variable x was fitted including fixed effects for condition (control, scar, birthmark), arrival order (coded 1, 2, 3, 4) and the interaction between condition and arrival order, representing 24 levels. Results are presented in Table 3. Based on a likelihood-ratio test, this model is preferred over a more complex model with 32 levels and heterogeneous compound symmetry. For the condition effect there was no significant difference between the means of the three conditions: control, birthmark, and scar (F (2,250.44) = 0.21, p >.05). The second main fixed effect, arrival order, was also not significant: F (3,130.70) = 1.91, p >.05. The interaction was not significant (F (6,131.66) = 0.81, p >.05).

Table 3 about here

A repeated measures hierarchal nested mixed model for the dependent variable c was fitted including fixed effects for condition (control, scar, birthmark), arrival order (coded 1, 2, 3,4) and the interaction between condition and arrival order, representing 24 levels. Results are presented in Table 4. Based on a likelihood-ratio test, this model is preferred over a more complex model with 32 levels and heterogeneous compound symmetry. For the condition effect, F (2,181.70) = 1.82, p >.05, indicating there was no significant difference between the three conditions: control, birthmark, and scar. The second main fixed effect, arrival order, was

also not significant: F (3,126.81) = 2.45, p >.05. The interaction was not significant (F (6,127.19) = 0.80, p >.05).

Table 4 about here

Analyses testing whether pedestrians stood significantly further away from the model in any of the three conditions, using first the x (distance to the left or right) and then c (exact distance) as dependent variables found no effect. However Rumsey et al. (1982) found that pedestrians arriving first in each trial stood an average distance of 100 cm from the model in the birthmark condition, 78 cm in the trauma condition, and 56 cm when the model was not disfigured. Current findings show that pedestrians arriving first in each trial stood an average of 128.8 cm in the control condition, 120.6 cm away in the scar condition and 140.1 cm away in the birthmark condition, indicating that people stood on average further away from the model in all conditions.

Positioning of pedestrians to the left or right of the model

The Binomial test was used to determine the effects of facial disfigurements on the positioning of pedestrians to the left or right of the model (see Table 5). This test found no significant differences. People stood randomly to the left and right of the model, supporting the second hypothesis.

Table 5 about here

Pedestrians standing in front of the model

To test whether there were differences in the number of people who stood in front of model, with 45° of either side of her nose, a crosstabs was run (see Table 6). Pearson's Chi-

Square showed no significant relationship between the variables. $\chi^2(1, N = 90) = 3.20, p > .05$, indicating that people did not stand in a position to view the model's face more frequently in the visible difference conditions than in the control condition.

Table 6 about here

Discussion

The objective of this study was to determine whether people with visible difference are afforded more space in public settings than those without visible difference. In accordance with the hypothesis that there would be no significant difference between the distance pedestrians stood from the model in the visible difference condition and the non-visibly different condition, it seems that people in contemporary Adelaide, Australia, with visible difference are not granted more personal space than those without visible difference. Although the model in all conditions was granted more space on average than in the Rumsey et al. (1982) study, the three conditions were not significantly different. This result fails to replicate the Rumsey et al. result, which found that people stood significantly further away from the model in the visible difference conditions than they did in the non-visibly different condition. Rumsey et al.'s study is a frequently referenced and well known study. These results are meaningful in that they fail to replicate a result that is generally assumed to represent the present situation of people with a visible difference.

It is possible that the amount of personal space accorded to people in a busy Australian city street was greater because the area was not as congested as a London street. The tendency to stand further from a person with a facial difference may only become evident when pedestrian traffic is very crowded. Nevertheless, the location of the current study was chosen as it is one of the busiest areas in the city of Adelaide, a city of approximately 1.2 million people, and so these results are likely to be generalizable to the experiences of Australians

with a facial difference. Similar studies in cities with higher population densities may clarify this point.

The percentage of people who chose to stand to the right of the model, away from the visible difference was not significantly different in the three conditions. One can hypothesize that people do not avoid looking at visible difference, in contrast to the results of the Rumsey et al. (1982) experiment.

There were also no differences between the percentages of people standing directly in front of the model in the three conditions. Thus people in general do not stand in a position to gain a clear view of visible difference. The level of data necessary for this analysis was not included in the original experiment, so it is not possible to compare the results.

These results may indicate one of several possibilities. Either the stigma surrounding visible difference has lessened, or the proxemic behaviours associated with the stigma have changed. Either of these two hypotheses represents a significant finding about interactions of the visibly different with the general public. Alternatively, results could reflect cultural differences between the cities of London and Adelaide, including differences in levels of tolerance. Nevertheless, the current study demonstrated that in Adelaide, those with visible difference are not granted more personal space than those without visible difference.

Research about people with visible difference provides many challenges. In order to maintain control over the experimental variable, this design uses a single non-visibly different person as the model. The drawback to this design is that a person without a visible difference cannot be expected to act as a person with a visible difference would, and the model is not blind to the experimental conditions, which may influence the results.

In accordance with previous literature (Carroll & Shute, 2005) the make up for the visible difference was intended as a moderate visible difference, as these incurred more verbal aggression in their study of Australian school children with craniofacial abnormalities.

However, it is possible different amounts and types of visible difference would produce different results. Rumsey et al. (1982) did not publish photographs of the model's appearance in the three conditions, so it is impossible to know how closely the physical difference in this study approximated that of Rumsey et al.

The design did not test for all aspects of stigma, including covert glances, averted eyes and other face and body language that contribute to social interaction. Therefore, it is impossible to ascertain whether the results indicate whether stigma towards the visibly different has lessened, or whether the behaviour associated with the stigma has changed. Future work should aim to capture these behaviours.

Tellingly, when the researcher approached her colleagues in search of a model she received many offers of help with observing the experiment, but no offers to don make-up and act as the model. It was thus that the researcher had the privilege of acting as the model. This opportunity granted the researcher insight and empathy beyond that which a researcher is usually afforded. When the researcher was made up to be visibly different, several people stood near the researcher and then rapidly moved away. Other people shuffled uncomfortably. Some smiled awkwardly. Quite a few men squared their shoulders and stared directly at the researcher. At one point when the researcher was made up during the birthmark condition a man, standing directly to the researcher's right on the curb, whispered in the researcher's ear as the walk light changed. Before moving quickly away he said "You are the ugliest person I have ever seen". This had a profound effect on the researcher, and it is difficult to imagine that anyone would be immune to such a powerful assault. He was the only person out the 408 pedestrians who acted as participants who spoke to the researcher, and his words combined with the silence of others, caused the researcher to feel the street was a lonely and hostile place.

It is impossible to pinpoint the exact sociocultural changes that might cause a reduction of the stigma towards the visibly different and which could thus account for the difference between the results of this study and that of Rumsey et al. The following is a non-exhaustive list of some of the major changes that have been intended to promote a more inclusive society. The Federal *Disability Discrimination Act* was passed in 1992 and protects individuals with a disability in Australia from discrimination in many areas of life, including education, employment and access to premises. This last issue means that there is increased visibility of disability in all walks of life: for example, supermarkets, libraries, banks and schools (Hebl & Kleck 2003). Similar *Acts* were passed in the US (1990), the UK (1995 and 2005), Ontario, Canada (2002) and Pakistan (2002) (Hebl & Kleck 2003). These *Acts* were enacted as part of global recognition for the need for civil rights and have followed other anti-discrimination acts preventing racial discrimination and sexism.

The media, too, has become somewhat more accepting of disability, perhaps in part driven by the Media Access Office in Hollywood, which is a group made up of hundreds of disabled actors (Hebl & Kleck, 2004). They have strenuously lobbied for a more multi-dimensional representation of disability in media. It has been argued, that the internet has become a new platform to research difference, and even to advertise the humanity in difference on sites such as Facebook, chat rooms, and Twitter (Zubal-Ruggieri, 2007). Zubal-Ruggieri suggests that the rapid increase in the use of Internet technology has greatly increased the visibility of people with disabilities in Western society, and as it fills a need for community and self-expression, the use of the Internet for personal and social interactions will continue to increase.

Archer (1985) posits that some physically distinctive features lose their stigma over time. A plausible hypothesis is that with increased visibility of all varieties of disability in all

walks of life – public places, the Internet, the media - the salience of individual encounters diminishes, thus reducing stigma.

But is the argument that there is increased visibility of visible difference in our culture sustainable? Many more disabilities are surgically treated today than 30 years ago (Rumsey, 2002). Strawberry hemangiomas, the birthmark worn by the model, are routinely treated with lasers until they disappear or significantly diminish in size. It is extremely rare to see an uncorrected cleft palate in a Western society. Cosmetic surgery has become a common fix for all types of facial blemishes, signs of age and imperfections and is a growing industry due to increasingly unrealistic beauty ideals (Rumsey, 2002).

Technologies for early detection of disability are continually becoming more sophisticated, and due to selective abortion and IVF procedures, certain disabilities are dwindling in numbers in contemporary society, a trend some term private eugenics (Gupta, 2007). The health care focus on the clinical treatment of visible difference reinforces pre-existing societal biases that favour physical attractiveness and pathologize visible difference.

It seems equally possible that just as racism has morphed into a subtler, less overt form over the last 50 years (Augoustinos & Every, 2007), so has prejudice towards visible difference. Societal changes resulting in increased social taboos against expressing overt prejudice towards people may have forced certain behaviours underground and altered the experience of stigma for the visibly different. Extending this hypothesis, it can be posited that visibly different people are no longer granted more personal space than others, but still experience stigma in less overt ways, perhaps covert glances, awkward smiles and whispers behind their backs. This argument is supported by the researcher's experience during the visible difference conditions.

One of the weaknesses of the literature on visible difference is the lack of clarity in discussion of the reason behind the behaviour of the general public towards the visibly

different. After the initial burst of findings by social psychologists that the visibly different are stared at, teased, and afforded more space, the research trend changed towards attempts to remedy the situation and moved to a health psychology framework. This new research trend was highly productive, but at a price. An adequate understanding of the social psychology of behavioural responses to people with a visible difference is still lacking. More research needs to be conducted to understand why people react as they do to people with a visible difference. The hypothesis that overt stigmatising behaviour towards people with a visible difference is no longer socioculturally acceptable, does not draw from the visible difference literature, but may be highly applicable and requires further investigation.

The theories that focus on the centrality of the face to overall human perceptions support the view that stigma towards visible difference has not changed. According to Cole (2001) the face has evolved to represent complex inner states and encourage others to feel the same. The face, intersubjectivity, empathy, sympathy, affective states and theory of mind are interwoven. Empathy relies on the face to communicate emotion and expression, a process that can be hindered by visible difference, and empathy is the ingredient most required to combat stigma. Thus the social process can become short-circuited. According to this theory, the essential nature of the face in the social process renders it unlikely that the stigma, prejudice and awkwardness associated with visible difference will ever disappear entirely.

The evolutionary biology perspective favoured by Fink and Penton-Voak (2002) and Little and Perrett (2002) is also worthy of consideration. Their explanation for agreement on attractiveness ratings of the face is rooted in the idea that the face is seen as an essential indicator of health and reproductive ability, and therefore the characteristics that convey those traits are seen as more attractive. Thus, they suggest visible difference signals poor health and fertility. According to this theory, people will always react instinctively to the face and differences of the face.

Whether the stigma of visible difference has diminished or just the overt avoidance behaviour associated with it, it is clear Western society places extreme importance on physical attractiveness and few are exempt from the impact of these exacting standards of beauty. It is difficult to imagine how a person would feel if she was routinely (or even sporadically) told she was the ugliest person someone had ever seen, yet teasing remains a significant issue for a large majority of children, and the focus of teasing is frequently physical appearance (Carroll & Shute, 2005). This study demonstrates the considerable overlap of psychological issues related to appearance between visibly different and non-visibly different mentioned in Rumsey (2002). The literature also reports that individual response towards appearance issues varies significantly, prompting some scholars of visible difference to focus on improving social skills in the visibly different in order to improve social interactions. While it is always true that improving social skills improves social interactions, this strategy has the potential to be misinterpreted as placing the responsibility on the visibly different for negative social interactions. Of utmost importance is the need to validate the perspective of the visibly different that stigmatising events do occur, and that many are outside their control.

In failing to replicate Rumsey et al.'s (1982) seminal result that people with a visible difference are granted more space in public places this research opens up myriad pathways to further research, including the need to replicate this research in its original London setting. However, both the idea that stigma towards the visibly different has lessened and the idea that stigma might be enacted in subtler ways need to be examined further.

The inter-observer reliability of the data was high, however, the greatest possible accuracy could be achieved using video equipment overlaid with mapping grids. It is recommended that future research use this technique as it could also record facial expressions, hand gestures and other behaviours. These behaviours are no doubt part of the social

experience and play a substantial role in perceptions of stigma. Evaluations of these behaviours would aid in unravelling the question as to whether stigma towards the visibly different has lessened or evolved into a new, subtler form. In addition, collecting qualitative data about the experience of viewing the model would illuminate the response of the general public towards visible difference. Conducting focus groups on the issue of the visibly different in contemporary society would highlight dominant discourses and could also highlight similarities and differences between contemporary discrimination towards visible difference and disability and new forms of racism.

Adding to the research design by varying location, for example comparing the data from a street corner near a hospital and from a suburban location would provide interesting information about levels of societal inclusion. Comparing the results for male and female models and male and female pedestrians could provide information on the roles of gender, stigma and appearance. Replicating the current study with different degrees of visible difference could clarify whether certain degrees of differences are avoided more than others.

Conclusions

Bates and Cleese (2001) remind us that there are billions of faces in the world, and none are identical. Despite the alarming rates of appearance concern in the both the general public and people with a visible difference, appearance research is still relatively limited. In order to meet the needs of those living in the shadow of an ever increasingly unrealistic beauty standard, it is important to continue to extend the boundaries of appearance research. This study has investigated the social psychology of encounters with the visibly different and is germane to all who work with the visibly different. These results are likely to be generalizable to other Western nations, which have experienced similar sociocultural changes

in the last 30 years, due to the level of interchange of information between Western societies, sociocultural trends and global media networks.

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Table 1

Descriptive statistics for position of pedestrians by order of arrival at the walk sign using the x variable in centimeters

Condition	Control	Scar	Birthmark	Total
	M (*SD*)	*M (SD)*	*M* (*SD*)	*M* (*S*)
	N	*N*	N	N
1st	121.5 (24.7)	112.4 (23.5)	130.6 (25.4)	121.3 (25.5)
	41	42	39	122
2nd	109.1 (45.8)	116.8 (39.6)	120.1 (37.6)	115.1 (41.1)
	41	39	36	116
3rd	91.5 (42.3)	103.9 (39.4)	110.7 (46.2)	102.0 (42.8)
	31	34	30	95
4th	117.3 (53.4)	110.0 (60.7)	117.9 (46.7)	115.2 (52.4)
	15	19	37	59
Total	109.8 (41.5)	111.1 (39.1)	120.7 (38.9)	113.9 (40.0)
N	128	134	130	392

Table 2

Descriptive statistics for position of pedestrians by order of arrival at the walk sign using the c variable in centimeters

Condition	Control	Scar	Birthmark	Total
	M (*SD*)	*M (SD)*	*M* (*SD*)	*M* (*SD*)
	N	*N*	*N*	*N*
1st	128.6 (22.8)	120.6 (23.9)	140.1 (29.2)	129.5 (26.4)
	41	42	39	122
2nd	123.5 (41.2)	127.0 (35.8)	134.8 (32.1)	128.1 (36.8)
	41	39	36	116
3rd	118.2 (49.2)	126.5 (30.6)	131.1 (36.8)	125.2 (39.3)
	31	34	30	95
4th	145.3 (54.6)	143.6 (40.6)	143.1 (39.1)	143.8 (43.2)
	15	19	37	59
Total	126.4 (40.8)	143.1 (40.6)	137.1 (33.7)	130.2 (36.0)
N	128	134	130	392

Table 3

Estimates of Covariance parameters of the dependent variable c in the diagonal linear mixed model (N=392), with logistical parameter estimates (estimate) Standard Error, Wald Z, P Value and Upper (U) and Lower (L) confidence interval limits

Arrival Order Variance	Estimate (Standard Error)	Wald Z	*P* Value	95 % Confidence Interval L (U)
1st	1.33 (0.17)	7.71	.000	1.03 (1.71)
2nd	2.79 (0.37)	7.52	.000	2.15 (3.63)
3rd	3.20 (0.47)	6.78	.000	2.39 (4.27)
4th	3.98 (0.75)	5.29	.000	2.75 (5.78)

Table 4

Estimates of Covariance parameters of the dependent variable x in the diagonal linear mixed model (N=392), with logistical parameter estimates (estimate) Standard Error, Wald Z, P Value and Upper (U) and Lower (L) Confidence interval limits

Arrival Order Variance	Estimate (Standard Error)	Wald Z	*P* Value	95 % Confidence Interval L (U)
1st	32.05 (4.15)	7.71	.000	24.86(41.32)
2nd	30.30 (4.03)	7.52	.000	23.34(39.33)
3rd	25.60 (3.77)	6.78	.000	19.17(34.17)
4th	29.95 (5.66)	5.29	.000	20.68(43.37)

Table 5
Frequency with which the pedestrians stood to the left or right (visually different) side of the model

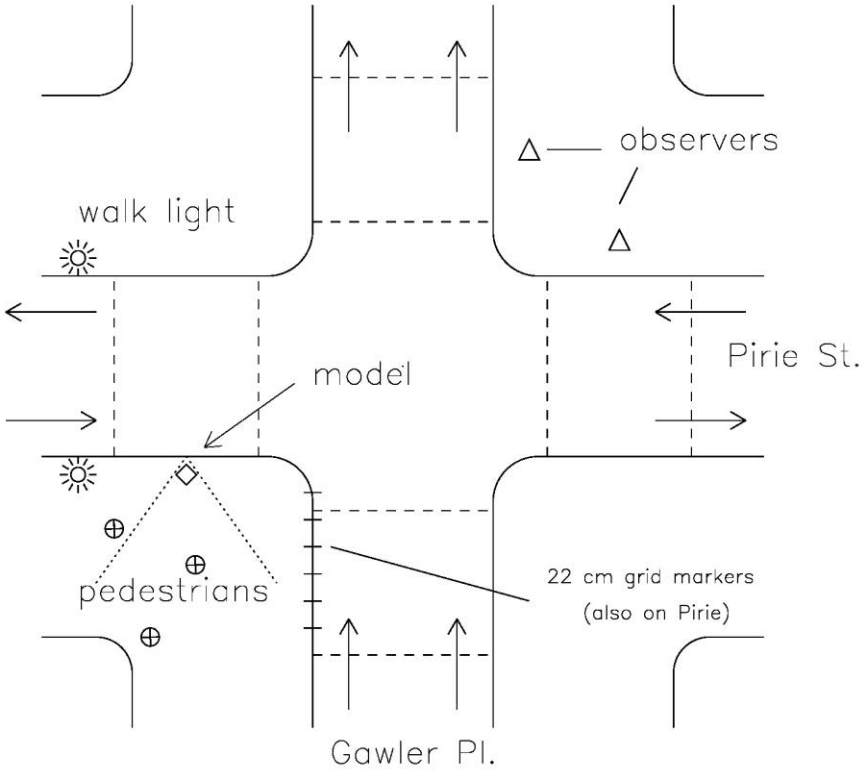
Pedestrian Order	1		2		3		4	
	L	R	L	R	L	R	L	R
Birthmark Condition	22	17[a]	15	21[a]	16	14[a]	8	17[a]
Scar Condition	17	25[a]	16	23[a]	17	17[a]	9	10[a]
Control Condition	21	20[a]	23	18[a]	11	20[a]	5	10[a]

a $p > .05$

Table 6

Crosstabs of the number and percentage of people who stood within 45° of either side of the model's nose (1) and the number of people who stood outside this radius (2).

	Position		
Condition	1	2	Total
	N (%)	*N* (%)	*N*
Control	24 (18)	106 (82)	130
Scar	27 (20)	109 (80)	136
Birthmark	38 (27)	104 (73)	142
N	89	319	408


observers
walk light
Pirie St.
model
pedestrians
22 cm grid markers
(also on Pirie)
Gawler Pl.