Northumbria Research Link

Citation: Hilton, Kevin (2006) Modelling complexity of gender as an agent of change. Systemist, 28 (2). pp. 1-10. ISSN 0961-8309

Published by: UK Systems Society

URL:

This version was downloaded from Northumbria Research Link: https://nrl.northumbria.ac.uk/id/eprint/3368/

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: http://nrl.northumbria.ac.uk/policies.html

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)

Northumbria University NEWCASTLE

University Library

Modelling Complexity of Gender as an Agent of Change.

Dr. K. H. Hilton
The Centre for Design Research, School of Design, Northumbria University.

Abstract

Social inclusion continues to develop as a key issue in responsible design practices. To date, we have witnessed change in the development of inclusivity for the aged, and the physically and mentally challenged, but little more than exploration by certain minorities has been achieved concerning gender diversity and fluidity. A key reason for this is cultural complexity, in terms of differences in social constructs, and conflicts with personal constructs, but there is a perceived need for change, towards more inclusive perceptions and behaviours.

The commonly held 'binary' model may have appeared to offer society a natural method of controlling complexity, by reducing mental effort involved in social decision-making. However, in terms of innovation, the use of such stereotyping may be seen as acting against originality and individualism, certainly not encouraging of positive change and diversity.

The traditions attached to the binary model permeate our language, constraining our perceptions and thinking. To present an alternative perspective, this project developed a more inclusive model of gender to recognize diversity and fluidity, while maintaining a level of simplicity to ensure effective comprehension and application. This paper's presentation of the 'Gender Fluidity Cube', seeks to describe the context for a more inclusive view of gender, sex and sexuality, as three dimensions which enable inclusion of any individual or group within its volume. Through a more in-depth study this dimensional model may offer creative opportunities to a number of professions including design, marketing and education, as a stepping-stone *'population' model, to inform more effective 'causal' models for systems thinking.*

Introduction

Design, as a process, can offer alternative perspectives on old and new problems, and sometimes a need is identified to venture into complex and controversial areas. The intent is not to suggest that designers know best, but that through their collaboration with key specialists new opportunities may be identified and developed. An effective design process enables all stakeholders to see value in engagement, so that they may work towards developing concepts into reliable and worthwhile designs.

Under the conference theme of 'new systems theory, models and methodologies' this paper provides context around the development of a concept for 'population' modelling of gender, and describes the need and intent for further development and testing. As a tool for systems thinking it is proposed that this 'population' model could be used as a process *stepping-stone*, to better inform the construction of 'causal' models for the investigation of social exclusion and discrimination. However, it is recognised that the Gender Fluidity Cube is one of a number of possible ways of inclusively describing a range of gender differences within a single model. It is also not the first attempt at a more 'diversity aware' model of gender.

Before the paper can discuss the developmental opportunities, there is a need to establish the context from which this field of study has originated. In the context of systems theory and practice, in informing the 'causal' modelling of social interaction, 'Gender' is defined here as a key component of individual identity, where additional components, not explored here, include class and ethnicity. (Woodward, 2004). Social discrimination has been observed for all components of identity. If discrimination and prejudice are even partially related to ignorance, due to possible anxieties over difference, it might be argued that by better educating our societies we would observe a reduction in discrimination and prejudices. If we take the constructivist approach to education it might be proposed that less constraining world-views should lead to greater appreciation of diversity. But what form of modelling would be effective in enabling us to deal with such complex issues of diversity, and how would such models best be communicated for positive change?

It is proposed that an effective model should enable near immediate location of an individual's identity, and relatively easy mapping of their social interaction within the model. Further research could gather individual and group perceptions of other identities within the model, the perceptions and interactions recorded could then inform the construction of 'causal' models. In additional, the 'population' model might enable positive change of social perceptions, by proposing it as a 'dimensional' alternative to the more traditional 'categorical' models. It is argued that the media is the most effective vehicle for communicating diversity awareness. Through the media channels, the languages and behaviours experienced are proposed to influence the very understanding of the world around us and therefore the initiation and engagement with change.

> *'Rather than being zapped straight into people's brains, ideas about lifestyle and identity that appear in the media are* resources *which individuals use to think through their sense of self and modes of expression.'*
>
> *(Gauntlett, 2002:256).*

Though often overlooked as a communication media, clothing enables the expression of identity. The model's relation to consumer identity brings us to an important point for 'causal' modelling, to acknowledge that globalisation, mass consumerism, travel and also the media, are all factors in the experience of a loss of community and emptiness of self, (Cushman, 1990). Consequently, this widespread lack of belonging has reinforced a need to better determine individual and social identity and to gain acceptance. It is possible that these social influences and experiences are precursors to an emergent change, where belonging could be provided through more inclusive products and services, engaging individuals through recognition and expression of self. However, it is proposed that success

would be dependent upon the perceptions held and communications made by a community, and that to enable change there may be found a need to offer clearly a more useful and worthwhile perspective than the 'binary' model. Irigaray, (1995), offered a feminine perspective, with an emphasis on chaos and 'Fluid Mechanics', to describe a system of change rather than rigidity. However, for a 'gender fluid' perspective to dethrone the traditional 'binary' perspective it is expected to require incremental change, to provide proof through responsible practices. The media's responsibility would be to increase contextual coverage and debate, facilitated by a change in visual and verbal language used to reflect the development of the new model, leaving the audience to judge acceptability over time.

Gender Context

Of importance within most social systems, and their sub-systems, is the status of power, which has often been demonstrated by contributing towards exclusions, (Abrams, *et al*. 2005). The power inherent in social systems has created simplifications of their social constructs, 'educating' through expectations of conduct, defining the 'pure' or 'polluting' behaviours, (Douglas, 1966), and further developing stereotypes. (Hinton, 2000., and Cranny-Francis, *et al*, 2003:140). However, even power wielded to control, rather than to liberate, does not prevent change occurring. As history has shown, constraint often fuels creativity, to develop value within or beyond that context of constraint. Dress code once saw both men and women wearing tabards, skirts and gowns. Perception of power was maintained for masculinity, with dominance implied through finery of textiles, and by expense of material or labour. While the visual language of acceptable clothing moved on, and continues to change though advances in social education, the underlying messages of power and status remain. So, while feminists campaigned in the 20th Century for women's rights, including the rights to wear what they wanted, men sought to maintain a more masculine power through restriction of what men wear. (Hegland, 1999:193-205). Additionally, product styling, (Kirkham, 1996), has sought to maintain some differentiations between the masculine and feminine, so that 'men can feel that their own bodies are safe from contamination by femininity'. (Burr, 1998: 111).

Intellectual engagement and educational process for inclusion and diversity awareness can therefore be hindered by the value system of a culture. As with alternative beliefs, proof is often questioned before engagement, but only obtainable through engagement, a self-limiter, reinforced by the strength of simple but otherwise poor contextual modelling. Failures in model application may also result through attempts to work within the constraints of a familiar model when the external context has changed, or when the application actually requires a new model to comprehend internal behavioural changes. There has been a tendency for the 'binary' model to encourage gender confused individuals to 'switch poles' in the hope of gaining release from identity conflicts, rather than seek to gain social clarity for the degrees of middle ground and their individual identity. Fausto-Sterling, (1993) suggested a five-sex model in an attempt to help people engage with gender identity differences and conflicts. Though that model was conceptual, serving to open new discussion, it was considered quite controversial by certain religious groups. It is not the intent to refer further to religion here, even though it is acknowledged to be a key factor for 'population' model considerations of gender identity interactions, to inform any 'causal' model construction.

Feminism and gay rights movements enabled a level of social education to occur, but largely among the more receptive social groups, especially the cognitively flexible, (Konik, 2004). These

movements contributed *incrementally* to the development of a commercial 'triadic' model, of male&female&gay, initially for classification of literature. Their contributions to education brought familiarity of certain terms, and changed some inferred meanings, over time. However, much of the language of gender still infers power, or lack of it. It is challenging to discuss, not to mention to research aspects of gender without experiencing a socially implied negativity with many of the references. In part this has been due to the construction of the references from a 'binary' perspective, with prefixes like 'trans-' and 'dis-'. Some attempts have been made to develop a more supportive and expressive language for gender, but have had limited success because people attempt to comprehend these terms from the 'binary' perspective. Butler, (1999: 19), highlighted the need to critique the 'binary' model through something other than the 'binary' model itself, requiring a new model and language. Kendall, (1996:217-219), and McRae, (1996:257), discussed the proposition of the cyberspace gender of 'Spivak', using the pronouns: e, em, eirs, eirself. However, as with any new or foreign word, even if they translate easily, they lack an immediacy of meaning without engagement and practice.

Language is a major influence upon the successful development of any new construct. The Sapir-Whorf theory, of the 1920's – 1930's, as described by Burr (1998: 113), declares a direct connection between language, thought and behaviour. In order that we can be more inclusive it is proposed that we need to develop a clearer, more positive language to reflect diversity, such that any individual may better appreciate their identity through engagement with inclusive constructs.

Social Learning Theory, (Burr, 1998:41), suggests that at a conscious and unconscious level we learn behavioural, political and sexual 'norms' from our social group's behaviours. So, individual engagement with change would therefore be led by the experience of social group engagement. Development and reinforcement of the 'norm' is achieved inclusively by engaging in behaviours, but also exclusively by behaviours of physical and/or mental aggression towards 'deviation'. Both feedback and reaction can be conscious or non-conscious. It is clear from the autobiography of Quentin Crisp (1996), that ridicule and aggression can even be observed within the gay community, as masculine homosexuals were observed to assert domination over feminine homosexuals through aggressive behaviour. Masculinity communicated by aggression would seem to have been more socially acceptable than masculinity though acts of inclusion and equality. It is suggested that for a change in perspective of gender to succeed in the near future would require, in addition to a new common model of gender, a creative approach to understanding and rationalizing the affects of language. For example, the terms 'transsexual' and 'transgender', (Feinberg, 1996), are still poorly understood, and as noted above, for some individuals it carries a derogatory tone. The transient nature of the label suggests a lack of belonging, purpose and/or confidence. An open and honest experience of gender, relating to stages and contexts, could instead describe these individuals as having range and depth. They may be viewed as being on a journey, where their position, as range descriptors may be seen to overlap. These descriptors might include:

> Gender Actor. These individuals are conscious of presenting a socially led gender image, which does not fit their internal image.

Gender Explorer. These individuals are ‘actors’ who take steps to understand ‘self’ through experimentation, in order to assess and possibly address conflict.

Gender Fluid. These individuals, possibly as ‘explorers’, recognize that the gender they portray changes with internal and external context requirements. They may remain ‘confident’ in their expressions of ‘fluidity’.

Gender Homing. These individuals, who may feel less ‘fluid-confident’, have consciously decided to change sexuality/gender/sex to relieve conflict anxieties by adjusting appearance and/or behaviour, ‘coming-out’.

Gender Confident. Confidence may be experienced as part of the maturing process, where conflict is addressed though understanding and acceptance of self and place in society. However, confidence may also be experienced through ignorance, with no perceived social need to question. Confidence may also change over time with changes in context, which is the key argument behind gender fluidity.

This range of descriptors may account for further change by linking the ‘confident’ to the ‘actor’, (Figure 1), creating a simple circumplex model, (Plutchik, 1997). An advanced version of this circumplex model would need to recognize further development over time in response to change, and the model may then be better described as a spiral.

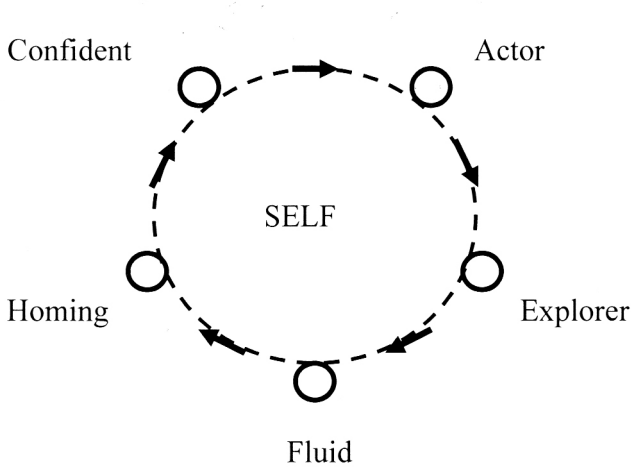

Figure 1. Gender identity circumplex model.

Gender Fluidity Cube

The above descriptors and circumplex model have specific but limited value, in that they deal with change by generalization, without real depth of character. They may provide some value to a section of mental health and transgender counselling, but would be unlikely to benefit a design process greatly. What design processes require, in order to create and to organize greater value, are models which can be populated by more specific personas. (Pruitt and Aldin, 2006). The Gender Fluidity Cube organizes gender types on three axes: Sexuality, Gender, and Sex. (Figure 2). In this way it is proposed that any individual should be able to place themselves, three-dimensionally, within the model very quickly, enabling effective communication. In terms of persona application, for design

research and practice, the 'population' model could help map similarities and differences, in terms of product and service user behaviour, and to study change in behaviour over time. Such studies could better inform design processes of users needs and influences, and lead to better informed 'causal' model construction. In terms of product design we have already mentioned clothing, but this approach might also be applied to packaging, mobile communication devices, transportation and interiors. In addition, this modelling process could be applied to service design to help inform and develop customer relations, and aid in healthcare with identity counselling, especially for disphorics experiencing gender conflicts.

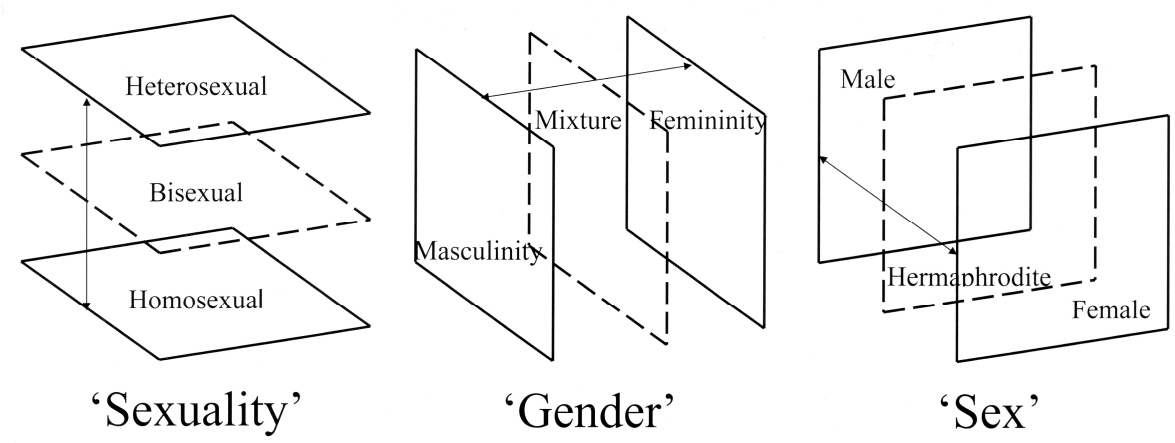

Figure 2. Gender Fluidity Dimensions.

Gender 'disphorics' would find identity placement around the plane that cuts through Masculine-Females and Feminine-Males on both Heterosexual and Homosexual dimensions. Sometimes disphorics describe their experience as being born into the wrong sex body. However, it is argued here that this perception could well be down to the 'binary' model by which they view themselves. Disphorics are likely to have some differing lifestyle needs from more stereotypical masculine and feminine individuals. Not all disphorics are 'transsexuals', some may experience benefits of maintaining their body as given. The counselling of gender 'disphoric' individuals with inclusive modelling might then more often conclude that the individual does not in fact experience a need to 'switch poles', to comply with 'binary' expectations, but that they simply need to be themselves.

In order to avoid simplistic shortcomings of categorical modelling, pigeon-holing individuals rather than recording complexity and change effectively, the Gender Fluidity Cube is proposed to provide a sense of belonging through connection with one, or more, of the persona. Figure 3. shows labels for 8 of the many persona. Labelling theory (Hollin, 1989: 11) however, suggests that even with a much broader range of persona, some may chose to sacrifice individuality for the perceived benefits of belonging to a group identity. Such behaviour would lead to the 'gender actor' scenario, where these individuals would act to the expectations of the label in order to confirm belonging. This could be viewed as a form of coerced fluidity, the level of influence being dependent upon the individual's social needs as part of their personality, e.g. gregarious – peer group pressured, or insular – peer group resistant.

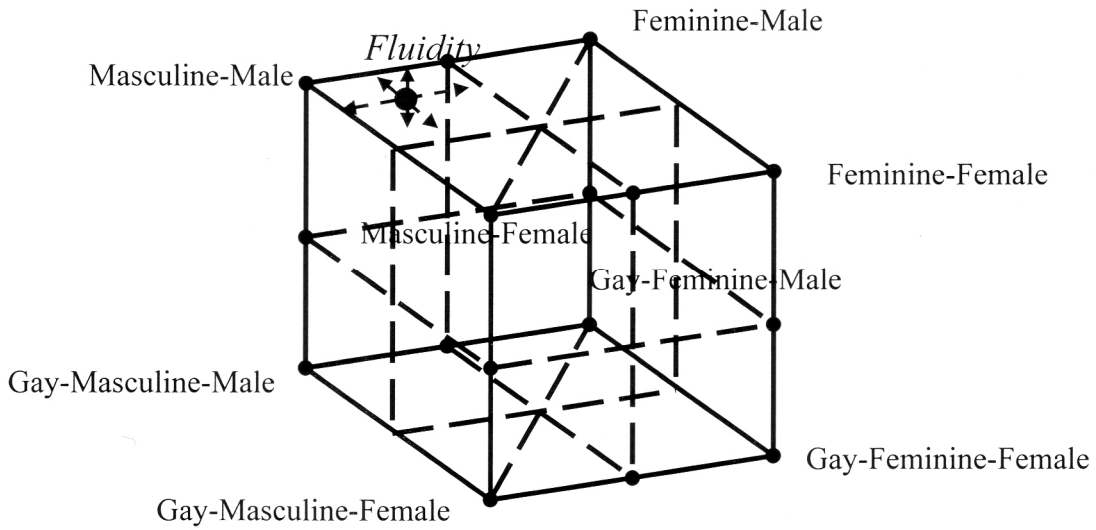

Figure 3. 25 Differentiated Gender Persona.

Discussion

This model does not suggest that everyone is fluid on all dimensions, but that the social majority, who have been found through sex stereotype indexing to be non-stereotypical, (Williams and Best, 1977), have their freedom accepted inclusively. This means that on each of the masculine to feminine dimensions we have to acknowledge the existence in society of the middle ground, as majority. With sexuality the middle ground represents degrees of bisexuality, but also includes asexuality, because middle ground placement is established by the pull or push of what the individual is like or not like. The bisexual could be said to be like both extremes, whereas the asexual would describe not being like either extreme, and their dimensional distribution would reflect this. Similarly, the distribution of identity for gender would refer to the gender neutral or mixed, then the middle ground for sex would refer to the hermaphrodites, those with elements of both male and female genitalia, or natural eunuchs with absence of genitalia. It is anticipated that when the model is heavily populated, clumping or zoning would be observed. Middle ground individuals like hermaphrodites for instance are very much in the minority whereas the numbers of bisexuals are expected to be much higher.

It has been shown that ‘cognitive fluidity’, (Konik, 2004), enables people to be more creative in their understandings, of self and change, and to be more open, instead of critical, of others and the complexities of social diversity. It is therefore the cognitively fluid who are anticipated to be first to appreciate the opportunities provided by a fluidity model. If we return to the consideration of clothing, the opportunity might be that clothing is just that, not menswear or womenswear, just ‘wear’, but with different styles and qualities to aid expression and perception of individual, or collective, nature. Alternatively, we might see a greater division of clothing types, communicating more positively the different gender identities. However, any such change in approach to retail would need, in parallel, a change in consumer fashion literacy, and change has already clearly taken place throughout history. It might be difficult to identify the tipping points, (Gladwell, 2002), which have

induced past changes, but they are likely to have followed a socially shared perception of value in making change. In order to engage people with challenge, there needs to be a clear and continuous affirmation of value in engagement through a process of enquiry and communication.

Publicising the Gender Fluidity Cube in a number of key fields and contexts, would help raise awareness, which may increase opportunity for populating and testing the effectiveness of the model as a *stepping-stone* for 'causal' modelling. Further research may lead to more inclusive social change however, as Gauntlett (2002) pointed out, change is unlikely to come through academic studies and texts alone. Dissemination needs to be much broader to gain momentum in perception and intellectual engagement, whose relationship with emergent change is challenging to map. Figure 4. suggests spheres of influence and some possible dependent relationships of emergent change in the gender identity system. By this model it is proposed that social constructs control the resources for media communication, and so influence the thinking and behaviour through language of identity. However, the mass influence of identities, changing with context over time, will inevitably change society through communication of newer more valued ideas.

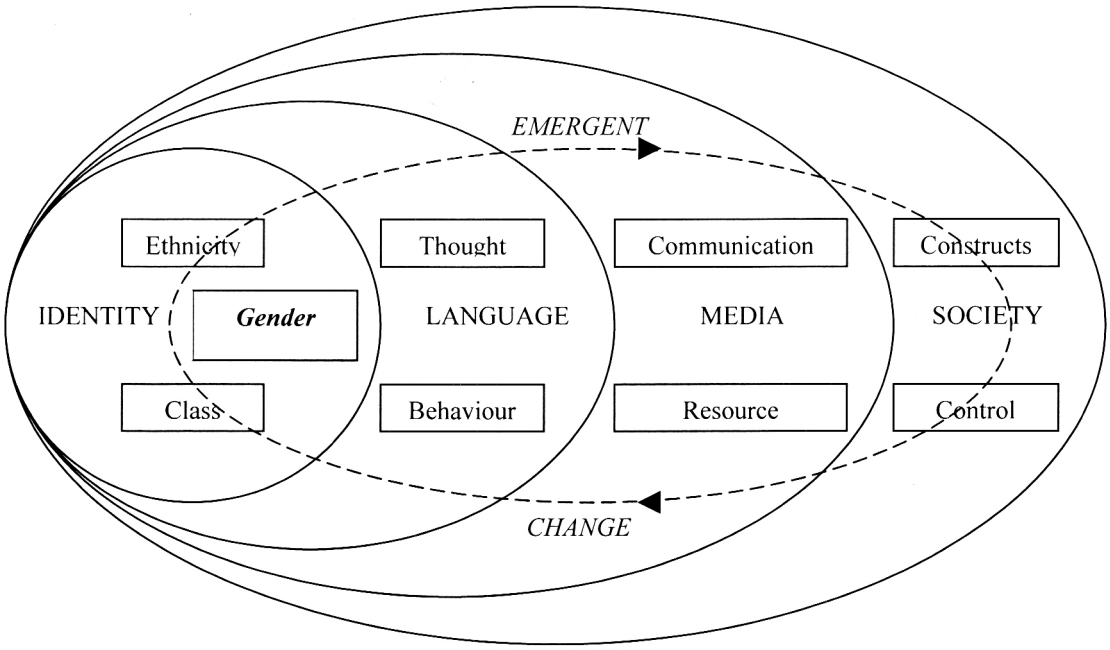

Figure 4. Identity's Emergent Change System.

The value of those new ideas, those innovations in seeing and doing, spread via the media in a number of contexts, may have to be shown to positively influence economic development before social acceptance is experienced. The importance of economic security to the sustainability of any social system, would suggest that risk assessment becomes part of the process of developing inclusivity. It is also acknowledged that change may have to appear socially acceptable before businesses risk engagement, a Catch-22 paradox. A solution could be incremental innovation by commitment in parallel. This may be achieved through organizational facilitated discussions of value in change of gender perspectives, possibly using conversational techniques outlined by Shaw, (2002).

In critical consideration of the system of influence, in terms of adoption and application, and the potential for emergence of social change, through interests in inclusivity, gender and identity we may not in fact be experiencing an indicator of emergence at all. What interest there is in gender may be no more that a form of *risk-homeostasis*, (Yates, 1992), where the social system is merely maintaining feedback to determine 'safety', keeping the perceived *risks* under tested observation. With concerns over diseases and unwanted pregnancies there is a sense of control of discussion around the subjects of sexuality, gender, and sex. Inclusivity's approach is to reframe perceptions, to create opportunities for understanding and educating social perceptions away from potential misinformation and failure to inform. However, it is recognized that in order to ethically maintain cultural diversity, we unavoidably maintain our clashes in belief systems. We will continue to experience difficulties in accepting the thoughts and behaviours of certain others. In addition to which, even those who actively seek to be more inclusive, will find that, initially at least, they use their traditional perspectives to try and make sense from, and perceive value in, new perspectives proposed. It is therefore suggested that the best compromise we may hope for, from a global perspective, via the media, is to accept freedom of thought but discourage discriminatory behaviours.

Conclusion

The research has indicated that the Gender Fluidity Cube, as a dimensional model of gender, is supportive of much present thinking within gender studies. However, it is also acknowledged that interest in gender related issues, may not in fact be a sign of emergent change, but simply society managing a perceived risk. It is difficult to read the broader social context effectively enough to predict the success of the Gender Fluidity Cube as a change agent, because of the complex nature of social constructs and interrelationships across its cultures and sub-cultures. Cultural and ethical conflicts will remain, through the need to maintain diversity of cultural identities, and be experienced as frustrations and disgust with the unaccepted cultural behaviours of others. It is suggested that through media communication, inclusive world-view constructs, like the Gender Fluidity Cube and its 'causal' models, could enable more cognitively fluid societies to gain acceptance of freedom of thought and the discouragement of verbal and physical discriminatory behaviour. However, regardless of perceived shortfalls, the traditional 'binary' model is likely to continue, as it has for millennia, to be applied broadly through habituated behaviour. This will be reinforced through the semantics of environmental and product styling, but even more so through the limitations of language and literacy. What influence the Gender Fluidity Cube will have upon the social system will depend upon its practical applications and media presence. The next step in this research is to apply it as a *stepping-stone* for systems thinking. Providing a 'population' model to enable better-informed construction of 'causal' models for the development of new systems approaches to understanding and resolving issues of social exclusion and discrimination.

References

Abrams, D., Hogg, M. A. and Marques, J. M. (Eds.) (2005) *The Social Psychology of Inclusion and Exclusion.* Hove: Psychology Press.

Burr, V. (1998) *Gender and Social Psychology*. London: Routledge.

Butler, J. (1999) *Gender Trouble. Feminism and the Subversion of Identity*. New York: Routledge.

Cranny-Francis, A., Waring, W., Stavropoulos, P. and Kirkby, J. (2003) *Gender Studies. Terms and Debates.* Basingstoke: Palgrave Macmillan.

Crisp, Q. (1996) *The Naked Civil Servant.* Flamingo.

Cushman, P. (1990) *Why the Self is Empty. Towards a Historically Situated Psychology.* American Psychologist. Vol.45, No.5, 599-611.

Douglas, M. (1966) *Purity and Danger.* London: Routledge & Kegan Paul.

Faustro-Sterling, A. (1993) *How Many Sexes Are There?* New York Times. March 12. A29.

Feinberg, L. (1996) *Transgender Warriors.* Boston: Beacon Press.

Gauntlett, D. (2002) *Media, Gender and Identity. An Introduction.* Abingdon: Routledge.

Gladwell, M. (2002) The Tipping Point: How Little Things Can Make a Big Difference. Abacus.

Hegland, J. (1999) *Drag Queens, Transvestites, Transsexuals: Stepping Across the Accepted Boundaries of Gender.* In M. L. Damhorst, K. A. Miller, and S. O. Michelman (Eds) The Meanings of Dress. New York: Fairchild.

Hinton, P. R. (2000) *Stereotypes, Cognition and Culture.* Hove: Psychology Press.

Hollin, C. R. (1989) *Psychology and Crime. An introduction to criminological psychology.* London: Routledge.

Irigaray, L. (1995) *This Sex Which is Not One.* (Trans. Catherine Porter and Carolyn Burke) New York: Cornell University Press.

Kendall, L. (1996) *'MUDer? I hardly know 'Er! Adventures of a Feminist MUDer'.* In Lynn Cherny and Elizabeth Reba Weise (eds) Wired Women: Gender and New Realities in Cyberspace. Boston: Seal Press. pp. 207-223.

Kirkham, P. (ed) (1996) *The Gendered Object.* Manchester: Manchester University Press.

Konik, J. (2004) *Exploring Normative Creativity: Testing the Relationship Between Cognitive Flexibility and Sexual Identity.* Sex Roles: A Journal of Research. Plenum Publishing.

McRae, S. (1996) *'Coming Apart at the Seams: Sex, Text and the Virtual Body.'* In Lynn Cherny and Elizabeth Reba Weise (eds) Wired Women: Gender and New Realities in Cyberspace. Boston: Seal Press. pp. 243-263.

Plutchik, R. and Conte, H. R. (eds.) (1997) *Circumplex Models of Personality and Emotions.* Washington: American Psychological Association.

Pruitt, J. and Aldin, T. (1996) *The Persona Lifecycle. Keeping people in mind throughout product design.* San Francisco: Morgan Kaufmann.

Shaw, P. (2002) *Changing Conversations in Organization. A Complexity Approach to Change.* Abingdon: Routledge.

Williams, J. E. and Best, D. L. (1977) *Sex Stereotypes and trait favourability on the Adjective Checklist.* Educational and Psychological Measurement. 37: 101-110.

Woodward, K. (Ed) (2004) *Questioning Identity: Gender, Class, Ethnicity.* London: Routledge.

Yates, J. F. (1992) *Risk-Taking Behaviour.* Chichester: Wiley.