THE DYNAMICS OF GENDER PERCEPTION AND STATUS IN EMAIL-MEDIATED GROUP INTERACTION, V1.0

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Abstract

This paper takes the position that identity is not located in the individual but in the community in which each individual is recognised as a legitimate participant. Markers of identity such as gender, race, and socio-economic class are not visible in written interaction, but socialisation produces expectations regarding the positions, status and behaviour of dual gender roles, and such expectations can colour the ways in which participants in a mailing list respond to each other. Despite the fact that technological mediation appears to render social markers invisible, social categories such as gender can become even more relevant for interactants in these contexts. The study of interactional patterns on the mailing list Cybermind uses a scheme to classify posts in order to highlight participants' responses to their projected addressees according to perceived gender. The findings indicate that style of response both to and by each 'identified' gender can be differentiated, and suggests that interactive behaviour contributes to the legitimation of local status of participants, but that this is not just a function of gender alone.

[Keywords: gender, identity, response, addressivity, CMC]

Introduction

Whereas studies of computer-mediated communication (CMC) to date have covered a wide spectrum of issues related to the formation of communities online and the dynamics

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of group formation[2], those studies specifically concerned with gender in CMC communities have mainly either focussed on female versus male 'styles' of communication[3], or on whether potential anonymity in online communication leads to more gender equality in online communities[4]. Such studies, however, have been based on generalised observations and somewhat under-specified criteria for the analysis of the interactive sequences chosen, and the study reported below proposes a more systematic approach to the investigation of the effect of gender perceptions in online communication. Female versus male styles in these studies were linked with specific ways of interacting and use of gender-linked preferences — for example Herring notes that:

> Males sometimes adopt an adversarial style even in cooperative exchanges, and females often appear to be aligned even when they disagree with one another, suggesting that gender socialization carried over from face-to-face interaction is at the root of these behaviors, rather than inherent character traits based on biological sex[5].

2 E.g. R. Spears & M. Lea (1994) "Panacea or Panopticon: The hidden power in computer-mediated communication", *Communication Research* 21(4): 427-459; N.K. Baym (1996) "Agreements and Disagreements in a Computer-mediated Discussion", *Research on Language and Social Interaction* 29(4): 315-345; T. Erikson (1996) "Social Interaction on the Net: Virtual Community as Participatory Genre", available: <http://www.research.apple.com/personal/Tom_Erickson/html>; E. Ekeblad (1998) "Contact, Community and Multilogue. Electronic Communication in the Practice of Scholarship", paper presented at *The Fourth Congress of the International Society for Cultural Research and Activity Theory*, ***ISCRAT*** Aarhus University, Denmark, June 7-11, 1998, available: <http://hyperion.math.upatras.gr/commorg/ekeblad/cocomu.html>; M. Giese (1998) "Self without Body: Textual Self-Representation in an Electronic Community", *First Monday*, 3(4); T. Postmes, R. Spears & Martin Lea (1999) "Social identity, normative content, and 'deindividuation' in computer-mediated groups", in E. Ellemers, R. Spears & B. Doosje (eds) *Social Identity*, Oxford & Malden: Blackwell; Caroline. Ho (2002) *Online Communication: A Study of the Construction of Discourse and Community in an Electronic Discussion Forum*. Unpublished Phd Thesis: Department of English Language and Literature, University of Birmingham, UK; P. O'Sullivan, S.K. Hunt & L. R. Lippert (2004) "Mediated immediacy A Language of Affiliation in a Technological Age", *Journal of Language and Social Psychology*, 23(4): 464-490; P. Rogers & M. Lee (2005) "Social presence in distributed group environments: The role of social identity", *Behaviour and Information Technology*. 24(2): 151-158.

3 E.g. S.C. Herring (1994) "Gender differences in computer-mediated communication: Bringing familiar baggage to the new frontier", Keynote talk at panel entitled "Making the Net*Work*: Is there a Z39.50 in gender communication?", *American Library Association annual convention*, Miami, June 27 1994; V. Savicki, D. Lingenfelter & M. Kelley (1996) "Gender language style and group composition in internet discussion groups", *Journal of Computer-mediated Communication* 2(3); D.F. Witmer & S.L. Katzman (1997) "On-Line Smiles: Does Gender Make a Difference in the Use of Graphic Accents?", *Journal of Computer-mediated communication* 2(4); S.C. Herring & A. Martinson (2004) "Assessing gender authenticity in computer-mediated language use: Evidence from an identity game", *Journal of Language and Social Psychology* 23(4): 424-446

4 E.g. T. Postmes & R. Spears (2002) "Behavior online: Does anonymous computer communication reduce gender inequality?", *Personality and Social Psychology Bulletin* 28(8): 1073-1083; S.J. Yates (1997) "Gender, identity and CMC", *Journal of computer assisted learning* 13: 281-290; S.C. Herring (2000) "Gender Differences in CMC: Findings and Implications", in *CPSR Newsletter*, 18(1).

5 Herring (2000), under "Asynchronous CMC".

Herring's observations imply that gendered habits in face-to-face communication are not left behind when people interact online, and the prevalence of these gender-favoured styles of talk in CMC contexts has countered early claims that communities which develop via online chat or asynchronous (e-mail) communication would be gender-neutral. In fact, most of the literature on gender in CMC communities has supported the view that expectations as to gender role are still a factor in the unequal status of female participants in online group discussions[6]. Recent studies have provided evidence that while gender is salient in online group interaction, there are other factors which also affect the nature and level of women's participation in electronic forums. In addition to apparent gender styles of interaction, some studies find that the nature of the topic being discussed, and the mix of genders in the group are more significant variables than gender alone[7]. Similarly, the findings of this study suggest that perceived gender may be only one factor affecting the nature of interaction on the mailing list Cybermind, and that perceived topic relevance, number of active participants of either gender, as well as the overt recognition of posts (through a supporting response), all contribute to status of participants of either gender.

The study reported below focuses on the relevance of gender to the participation rates in these kinds of contexts, relating this to the development of group norms and the formation of participant status on Cybermind. Rather than concentrating on the actual verbal styles of either gender, the study tested whether perceived or "identified-as" gender has any bearing on the rate and the manner in which responses were made to contributions onlist, and further theorises that response rate and orientation to the content of previous contributions will be a significant factor in the development and perception of the status and authority of specific poster-identities over time. This approach is based on notions of identity which depend on interactive and negotiated

6 Yates (1997); Herring (2000); Quing Li (2005) "Gender and CMC: A review on conflict and harassment", *Australasian Journal of Educational Technology* 12(3): 382-406.

7 S.C Herring, D.A. Johnson & T. diBenedetto (1998) "Participation in Electronic discourse in a 'feminist' field", in J. Coates (ed) *Language and Gender: A reader*, Malden and Oxford: Blackwell; Postmes & Spears (2002); R. Thomson (2006) "The effect of topic of discussion on gendered language in computer-mediated discussion", *Journal of Language and Social Psychology*. 25(2): 167-178.

role relationships among 'ratified' participants in local communities[8]. The paper reports on a methodology for the study of online interaction which calculates types of responses made both to and by identified-as male and female posters and, in doing so, it provides a framework for the investigation of the development of both individual status and group norms in online communities. The framework introduced provides avenues for further investigation as to the nature of negotiated role and status in online 'communities of practice'[9] such as this one.

The hypothesis being tested is that *written* and *posted* responses to male or female posters are both quantitatively and qualitatively different. I also ask whether or not 'styles' of response differ according to the gender of the responding writer. In other words, do females or males (as a group) respond differently to their male or female interlocutors? Patterns of difference in response styles would, over time, result in a negotiated but conventionalised role and status identity for each gender. Favouring of the identified-as male posters would mean that propositions made by male posters would be taken more 'seriously' than those made by female posters. In such a case, status accruing to male posters would be reflected not only by how many responses their contributions generated (which in itself would be a reflection of their ideas and topics being supported or argued by other subscribers), but also by the nature of the support they received. Hence, the topics presented by male posters would be discussed for longer periods of time, and be referenced in other conversations (or threads) as well, leading in turn to those participants' greater prominence. The study found evidence to support such a development of male status in this online environment, but suggests that the unequal participation rates of each identified gender has a significant bearing on this outcome.

8 See for example C.L. Ridgeway & L. Smith-Lovin (1999) "The gender system and interaction", *Annual review of Sociology*, 25: 191-216; G.G. Okamoto & L. Smith-Lovin (2001) "Changing the subject: gender, status and the dynamics of topic change", *American Sociological Review* 66(6): 852-873; M. Bucholtz & K. Hall (2005) "Identity and Interaction: a sociolinguistic approach", *Discourse Studies* 7(4-5): 585-614; S.A. Reid, N. Keerie, & N. A. Palomares (2003) "Language, gender salience and social influence", *Journal of Language and Social Psychology*. 22(2): 210-233.

9 E.g. J. Lave. & E. Wenger (1991) *Situated Learning: Legitimate Peripheral Participation*, Cambridge: Cambridge University Press; P. Eckert & S. McConnell-Ginet (1998) "Communities of practice: where language, gender, and power all live", in J. Coates (ed 1998); E. Wenger, (1998) *Communities of Practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.

Gender and social identity

In most social groups, participants use overt material markers of identity — such as gender, race, and social class — to 'call a person into existence' during interaction, through recognising or addressing them as a social identity. In email-mediated communities, such material markers of identity are usually unavailable to interactants[10], and this sometimes makes it difficult for members to address themselves comfortably to an audience of unknown others. Habitual ways of identifying social actors in offline life, lead to expectations that one's interlocutors are either male or female, and these expectations often lead participants in email lists to identify other participants as either male or female so that they can continue interacting with them, or so that they feel comfortable addressing them in specific ways. Participants are thus usually *identified as* either male or female; either by default through their 'handles'[11], or through conjecture and even overt enquiry if ambiguity exists.

The term 'identified-as' is important in this context, because gender roles are not necessarily a product of the biological sex of any participant, and it is theoretically possible for people to take up or 'perform' any gender role, especially when the overt material markers of gender are not visible. However, an expectation of dual gender tends to override any such lack of markers, and once a poster to the list discussion has been *identified-as* either male or female, these expectations colour any interpretation of their contributions. In these contexts, even though interactants may not choose to perform as gendered identities, they are often called upon by others *to account for themselves* as identities in *gendered ways*. Whether online or not, we are all called into existence, or 'interpellated'[12] into social activities via the norms already operating in society as a whole and in each of the social groups which we might hope to enter. To

10 Some email-mediated online communities of the kind Cybermind typifies, also maintain websites with personal photographs of participants, or even organise so-called 'flesh-meets'. Recently, of course, many online communities which are actually "website-mediated" have proliferated – the most well-known being those accessed via Facebook and MySpace. Email-mediated mailing lists, however, are conducted entirely in writing, with each message or 'post' to the list discussion a separate self-contained text.

11 M. Rodino (1997) "Breaking out of binaries: Reconceptualizing gender and its relationship to language in Computer-mediated communication", *Journal of Computer-mediated Communication.* 3(3).

12 L. Althusser "Ideology and ideological state apparatuses" in *Lenin and Philosophy, and Other Essays*, New Left Books, London 1997: cited in N Fairclough *Language and power*, Harlow: Longman, 1989: 102-105, and N. Fairclough *Discourse and social change*. Cambridge: Polity Press, 1992: 90.

resist such positioning is to risk being labelled as deviant, not being recognised as a legitimate participant, and perhaps even expulsion from the group[13].

Email list as community of practice

The approach adopted here is broadly sociological, and takes as a starting point the approach known as 'critical discourse analysis' (CDA)[14.] From this viewpoint, identity, ideology, and gender in computer mediated 'discourse communities'[15] or 'communities of practice'[16] are seen as functions of a set of interactive norms that are identifiable at levels ranging from the events themselves (the 'micro-level') through to what seem to be observable patterns of interaction over longer periods of time (the 'macro-level'). A communities of practice (CoP) approach means that *local* practices — in this case, those of an email discussion list — are the focus of study, and also that the performative construction of gendered identity is considered to develop according to a person's membership of particular communities of practice. A CDA perspective further acknowledges the need to:

> consider and clarify the force of the socially ascribed nature of gender: the assumptions and expectations of (often binary) ascribed social roles against which any performance of gender is constructed, accommodated to, or resisted[17].

13 See for example chapters by Lisa Capps, William Leap, in Bucholtz, M., Liang, A. C., & L. A. Sutton (eds) (1999) *Reinventing identities: The gendered self in discourse*, Oxford and New York: Oxford University Press; E. Wenger (1998) *Communities of Practice: Learning, meaning and identity*. Cambridge: Cambridge University Press 1998; P. Watzlawick, J.H. Beavin & D.D. Jackson (1967) *Pragmatics of Human Communication: A Study of Interactional Patterns, Pathologies, and Paradoxes* New York: W. W. Norton; G. Bateson (2000 [1972]) "Morale and National Character" in *Steps to an ecology of mind*. Chicago & London: University of Chicago Press; also J. Ruesch (1951 [1987]: 21-49) "Communication and Human relations", Chapter 2 in J. Ruesch, & G. Bateson *Communication: The social matrix of psychiatry*; and E. Milne, "'Dragging her dirt all over the net': Presence, Intimacy, Materiality" in this journal issue.

14 See for example G. Kress (1985) *Linguistic Processes in Sociocultural Practice*, Geelong, Victoria: Deakin University Press; J.L. Lemke (1995) *Textual Politics: Discourse and Social Dynamics*, London & Bristol, PA: Taylor & Francis; Caldas-Coulthard and Coulthard (eds) (1996) *Texts and Practices: Readings in Critical Discourse Analysis*. London: Routledge; L. Chouliaraki & N. Fairclough (1999) *Discourse in Late Modernity: Rethinking Critical Discourse Analysis*, Edinburgh: Edinburgh University Press; N. Fairclough (1992) *Discourse and Social Change*, London: Polity Press; N. Fairclough (1995) *Critical Discourse Analysis*, London & New York: Longman; M.M. Lazar (ed) (2005) *Feminist Critical Discourse Analysis: Gender, power and ideology in discourse*, Basingstoke & New York: Palgrave Macmillan.

15 V.K. Bhatia, (2004) *Worlds of Written Discourse: A Genre-based View*, London & New York: Continuum.

16 See note 8 above.

17 V.L. Bergvall "Toward a comprehensive theory of language and gender", *Language in Society*. 28(2), 1999: 282.

Both perspectives view interactive norms as developed and negotiated *though* interaction, but CDA maintains that the authority to legitimate such norms may be unequally distributed, whether by coercion or acquiescence. C*oercive* legitimating practices may be transparent since they are conducted verbally and/or by active measures. In the case of a mailing list, those who do not conform may be unsubscribed by those with the power to do so, or their contributions may be censured by verbal attack. Thus high status members or moderators may act to control or "determine what should be included, and decide how to couch these ideas so as to 'assign assumed shared experiences and commonsense attitudes'"[18]. In some lists this has resulted in litigation being either threatened or performed[19]. Some list members may resort to overly defensive or aggressive behaviour when their status is threatened, or when their own list behaviour is challenged or questioned, and this may result in a reluctance by others to question their authority. Alternatively, the practices of higher status, more powerful group members (however determined) may be made legitimate by other members who, wishing to show that they belong, reproduce the norms of the group through *acquiescing* to them — by not 'rocking the boat', by not questioning the actions of high status members, by imitation, or by responses which recognise and applaud the contributions of those members. Michelle Lazar notes that the studies in her volume show that "deviations from the gender-appropriate norms are policed through criticism by others and/or through containment"[20]. And, as one participant commented during a Cybermind conversation:

> I do not *necessarily* wish to be dominant. However, I do wish to participate in a conversation that is dominated by people who are not of my gender. To do so, going back to the theory cited in my post, I need to adapt my postings to the dominant culture. [genaug97.#/female#20] [21]

Because the response of others is crucial to our recognition as members of any community, actual participation in list activity, or indeed any community of practice, is necessary for analysis and coding of list interaction and its products. Text analysis by itself cannot provide a complete understanding of the meanings being made in a

18 Bergvall (1999: 285).

19 The case of the now defunct *Phil-Lit* is a good example.

20 Lazar (2005: 9).

21 Tags for Cybermind posts are [square-bracketed]. They are in the form [filenamemonthyear.post#/posterID]

dynamic (temporally) interactive context. The short excerpts used for analysis, therefore, and any excerpts of single posts/texts presented here, need to be viewed as nodes in a complex web of inter-relating features which point to repeatable patterns, but are mainly treated as instantiations of dynamic and participatory patterns of interaction over time. Anyone hoping to join a community needs to interact within that community — one cannot learn how to mean from outside the group, so to speak.

Corporeality, language and gender

There is a common view of online participation which implies the body is 'not present' when interacting with others via the internet. This view rests on the neo-Cartesian stance that the boundary between consciousness — 'mind' —and 'body' can be clearly distinguished. To quote one of the participants in a discussion on the nature of 'gender consciousness' on Cybermind: "the body I'm currently wearing is biologically female. But the mind inside is a whole 'nother kettle of fishies"[22]. Such a division between mind and body would lead one to actually believe the childhood taunt that sticks and stones, i.e. 'real' physical material objects, are the only means of hurting anyone. To assert that therefore there was no such thing as the violence done by words would fly in the face of other experience in which people report physical pain occasioned by speech or even *in*action. The perspective adopted here maintains that the experience of subjectivity is based on its corporeality and all that entails –including our verbal experiences in learning how to mean. This means that:

> notions such as agency, reflection, consciousness … can be remapped, refigured, in terms of models and paradigms which conceive of subjectivity in terms of the primacy of corporeality[23].

Such a view acknowledges that words themselves, and the contexts in which they are used, have the power to evoke strong emotions and associations, and that these emotions are primary corporeal processes 'inscribed' on lived bodies via experience. Without such connections, there would also be no *poeisis*, no propaganda, no exhortation to war, no advertising industry, and neither would literature or any text have the power to move us to tears or laughter — to cite a few gross examples. Therefore it is impossible to describe the boundary defining the place where physical

22 January 2001.

23 E. Grosz *Volatile Bodies*, St Leonards: Allen & Unwin 1994: viii.

hurt or 'mental' hurt begins and ends. Our bodies are the pre-givens, inscribed with our relatively limited, socially recognised, learned and habituated experiences as gendered identities — in our bodily 'habitus' to use Bourdieu's term[24]. These learned identities then determine how we react and respond to new communicative resources — including the material, technological resources implicated in any communicative act[25] —and how we in turn use these resources to communicate in each of our roles and relationships within the array of communities of practice in which we are recognised as a member. When one becomes used to interacting in any social group without having to resort to 'looking up the rules', a certain set of practices has been 'learnt', and a social *habitus* for that group has been taken on. It is this perspective on the learned nature of our identities within groups — identities made up of who we have been recognised /ratified as in the past — which informs the analysis made on the postings to this group's discussion, which is its main context of interaction.

A gender free mailing list?

The idea for the study was originally inspired by a long thread (or discussion) on the internet mailing list Cybermind in 2001. At this time the list had been in operation for 7 years and had developed a set of practices along with a group of core members who had been communicating on topics of great diversity during the period of the list's existence. The very length of time that the members had been interacting had allowed a variety of "real-world" relationships to develop along with conferences and other meetings, as well as producing papers and studies both academic and literary. The topic of gender had come up for discussion several times over the years, and a diversity of opinions existed on whether gender was relevant in the online — or even offline — world. This lengthy discussion regarding online gender consciousness resulted in a specific sub-project being undertaken in which a group of Cybermind participants subscribed to a new, special list where all markers of gender — in particular gendered names — were to be eschewed, and in which participants would interact in a "gender-free" environment. The project was short-lived for a variety of reasons, but the experiment raised the issue of whether, having been raised in a

24 e.g. P. Bourdieu (1991) *Language and Symbolic Power*. Cambridge, Massachusetts: Harvard University Press.

25 J. L. Lemke (2000) "Material sign processes and emergent ecosocial organisation", in P.B. Andersen et al (eds) *Downward Causation: Minds, Bodies and Matter*, Aarhus: Aarhus University Press.

western society in which gender markers are salient and oriented-to in most every day activities and interactions, such a gender-free environment could be considered at all valid without also invoking the notion of Cartesian dualism.

Some of those participating in the discussion wrote that they were tired of gendered behaviour, type-casting and the language practices they were used to doing in offline life. At the same time, it appeared that their social life had nevertheless left them with the legacy of a gendered set of 'orders of discourse'[26]: ways of relating to each other and to the social institutions which constitute the society in which they lived. Their very experience of gender fatigue was noted to arise from this array of gendered expectations — as one participant on Cybermind[27] quipped:

> If society says that a woman cannot do X, and I identify as a woman, and I don't even try to do X, then I have bought into the definition of womanhood for that society. [...] I have had the experience of being 'painfully' aware of being stuffing into, or at least towards, a feminine gender. It was about as uncomfortable and ineffective as trying to stuff my feet into shoes three sizes too small. [genjan01.13/female#17]

Another participant noted a distinction which highlighted gender-inflected knowledge differences and which related very much to bodily experience in the material (as distinct from 'virtual') world in the same discussion of gender on Cybermind[28]. She pointed to a distinction, known to most socialised women in the West, related to the proliferation of lexical terms referring to distinctions in the description of leg attire related to size, depending on whether one intended to purchase 'stockings', 'pantyhose', or 'tights'[29]. These size systems vary between a numerical ordering on the even (e.g.10, 12, 14, 16), or non standardized descriptives (e.g. small, medium, large, queen). Her comment noted that such a simple question as 'What size pantyhose do you wear?' would have a great degree of accuracy for women in discriminating socialised females from males in computer-mediated environments — since males would not presumably, or usually, be aware of the conventionalised sizes in this gendered area of knowledge:

26 Fairclough (1992). Related to, but not the same as, what Foucault (1972: *The archaeology of knowledge*. New York: Pantheon Books) refers to as *discursive formation.*

27 January 2001.

28 January 2001.

29 Of course, the 'sign of the stocking' may have as many meanings as there are contexts of its use. As ever, linguistics is a science which is based on generalities abstracted from the instance.

> To be honest, I've never met anyone online who gender bended successfully in this way. In my MOO/MUD days we used to joke about being able to sniff out the boys -- ask 'em what size panty hose they wear, for instance. [genjan01.12/female#19]

Other types of question would function similarly for male-based knowledge. The point here was not that such knowledge was unavailable to either gender, but that material culture (including experiences of the biological body), and languaging experiences, are interrelated and highly implicated in social processes: in learning how to mean[30]. For a woman, knowledge relating to pantyhose sizes is likely easily called upon, but not for a man: this is not a statement about biological differences, but about the nature of social experiences which are a function of being *identified as* either male or female.

In another, later discussion related to gender, a participant quotes and supports the propositions of another post in which it was pointed out that there is sometimes a greater need to identify the gender of our interlocutors online:

> > Given that most people do 'pick', or have attributed to
> > them, gendered identities online, (or as we know,
> > spend large amounts of time worrying about ambiguous
> > gender), then what does this gender do?
>
> It makes people feel more comfortable.
>
> > It is possible, for example, that in a low cue environment,
> > gender becomes more important in resolving communicative
> > ambiguities, than it does offline
>
> Makes sense.
> [genjan01.#/female#17]

And in the same thread, another (identified-as male) contributor had this to say:

> A human can deal with another human more comfortably if they know each others gender as gender is the baseline of most human interaction. Comfort leads to better communication.
>
> Social mores and customs dictate how men deal with women, how women deal with men, how men deal with men, and how women deal with women.
>
> (Social mores and customs dictating rules concerning other genders are unusual in humanity.)

30 see M. A. K. Halliday, *Learning How to Mean.* London: Edward Arnold 1975.

> I am not claiming that any of the above is an ideal, agreeable or even desirable state of being. It just IS. [genjan01.#/male#37]

Yet another contributor acknowledged his own willingness to 'see' gender when other markers were not present:

> Now, what do I make of gender on the Internet? "Alex Sorensen" to me was a Scandinavian male, whereas she is in fact (I'm totally persuaded, BTW) an African-American woman married to a Scandinavian. Did I pick up the gender-vibes from her ASCII? Not at all, actually. I guess that the picture of the Scandinavian male overrode everything. [genjan01.#/male#28]

In other words, it appears that because overt identity markers are not available online, participants feel the need to know more about who they are communicating with before they can feel 'comfortable' in their communication with unseen others. Making incorrect assumptions about the life experiences and values of others may be obviated if some common social categories (such as gender) can be ascribed to them. What participants do with this knowledge is another matter.

The following sections introduce the method of collection and analysis of the data for the study, including details of the classificatory framework used.

A short study of posting behaviour on Cybermind

The study was conducted using two strips of list activity taken from the Cybermind archives focusing on February 2002 and February 1996. This was done to include some opportunity for observing any differences in list interaction /composition, and as compensation for the relatively short length of the corpus — i.e. to provide a more generalisable data set. Each set of texts covers a 2-3 day period and comprises approximately 110 posts each. The strips of activity were chosen in as random a method as possible so that any partiality towards certain behaviour patterns would be subverted — the sequence of posts were first taken in 2002, the day after the study was first conceived. Those from 1996 were excerpted using the same dates, but used those from the earliest year I had been a member — the year that I first subscribed to Cybermind.

The study reported here was designed to investigate the processes through which status and hence identity within any group arises through the recognition and legitimation of participants' contributions in interaction, and focuses on expectations of dual gender roles. The approach adopts the perspective of 'orientation to response', a way of checking in what way responses are made to the contributions each participant makes to the discussion. I explore whether expectations as to dual gender roles lead to differences in ratified (recognised or responded-to) identity onlist. The study also provides data on whether each gender, as a group, responds differently to the perceived gender of other list members, and the framework introduced here provides the means for identifying differences in orientation to perceived gender in interaction. The claim is not that close textual analysis can actually determine or reveal the 'actual' biological sex of any specific poster identity, but that having been identified-as a specific gendered identity onlist may have a bearing on how and by whom one's posts are treated in response[31]. Furthermore, the very process of being identified-as male, female, infirm, criminal, etc, contributes to lived experience and habitual ways of reacting to the world: we may be unable to *unlearn* our gendered selves.

The term '*orientation to response*' refers to the ways in which posts sent to the list are responded to (or not): whether a person's responses take up the content of the contribution they are responding to, and how they support or contradict these messages[32]. Orientation to response provides a means of approaching the investigation of role and status formation in written interaction and, with respect to differences in gender roles, relies on determining differences in *addressivity* and *responsivity* across gender lines — that is to say, whether posters were more or less supportive of *identified-as* male or female poster contributions. Orienting to the posts of other list members in particular ways accords the writers of those posts higher status in terms of what I am calling *prominence* and *authority*. Briefly, 'prominence' refers to the degree to which certain identities are common or 'visible' within a community, and has connotations similar to 'publicity', 'exposure', and other media-related terms. 'Authority' on the other hand, refers to the degree to which identities are seen as

31 See for example Herring & Martinson (2004).

32 See Alexanne Don *A Framework for the investigation of interactive norms and the construction of textual identity in written discourse communities: The case of an email list.* Unpublished PhD Thesis. University of Birmingham, UK, 2007.

knowledgeable, experienced in a particular field, or deserving of deference for any reason. In other words, onlist, the number of times a specific poster is addressed, mentioned, or responded to provides a first measure of how *prominent* they are likely to be onlist, and how likely it is that they are viewed as *authoritative*, or deserving of having their ideas supported or emulated within the discourse community of the list. However, in this sense, perceived *authority* is a function of the dynamics of the interaction of the group over time, and this authority is dependent on the type of responses garnered as well as the way in which each poster responds to other members in turn.

Below, I present an analysis of the two strips[33] of interaction from Cybermind to demonstrate how a notion of 'orientation to response' can help account for the ways in which social roles and relationships are negotiated and legitimated during interaction. Because the study was based on relatively short strips of interaction, responses ***to*** either identified–as male or female posters as a group could not be shown to vary significantly within the time frame — even though it is evident that males as a group were more prominent than females. However, even within these short strips of interaction it appears that identified-as female posters were more likely than the males to support the ongoing interaction by recognising — and thus legitimating — the contributions of other posters. In addition, the study revealed a trend in which individual posters rather than groups of posters were recognised by having their contributions mentioned more often in subsequent contributions to the list. The framework introduced here also offers a means for investigating interactive conventions in longer stretches of group activity which can provide a means of accounting for individual status, and for determining whether perceived gender has any bearing on this status.

The findings of the present study indicate that males were accorded slightly higher *prominence* and/or status within these strips of list activity despite the almost equal participation rates of the female 'poster identities' (hereafter *posterIDs*). It shows that gendered identity online — while not necessarily predictive of participation rates (although active female posters are usually outnumbered by male posters) — may still

33 Erving Goffman *Frame Analysis*. New York: Harper & Row, 1974: 10.

be significant in negotiation over 'moral order' or over what is considered of significance, appropriate or proper to say. This negotiation over *moral order* is related to the reproduction (and challenge) of ideology, including expectations as to gender roles, and these moral orders are negotiated in social groups via interaction, i.e. 'built up' over time. One corollary of this view is that the ways in which one is responded to, will promote or discourage later discursive behaviour within the group — depending on whose responses are legitimated by further response, or accepted as authoritative for whatever reason.

This study confined itself to categories of whole posts as list behaviour, according to a taxonomy of a) *text-type style*, b) *addressivity*, and c) *responsivity* features which are detailed further below. As state earlier, the sample was limited to two to three days of list activity taken from two different periods in list history and the choice of periods for excerpting 'strips' was made as randomly as possible, so that topic of conversation was not the deciding factor, and so that a 'pure' sample of list activity might be studied. Strips of three days each, provided a manageable reference sample of approximately 240 posts altogether. However, much longer strips of list activity would be required to make valid conclusions regarding the nature of list identity status as this is built and maintained over longer periods of time — and it became evident that a small proportion of participants contributed a relatively high number of posts. This high volume by individual posterIDs contributes to their *prominence* in terms of the number and type of responses garnered and could express their individual prolificacy or a contingent voluminousness, rather than an overall status or orientation to gender roles in general. The posts of these high frequency posters and the contexts of their topic introduction — e.g. whether their posts were initiating the topics or supporting them via response — will be the subject of a subsequent report.

Methodology of the short study

To provide a background for the study of interactive behaviour, the ratio of male to female participants was first calculated, providing an overview of posting behaviour (such as number of posts made by each identified-as gender), as well as the average number of words per post. **Table 1** below compares posting behaviour for the two periods and for each of the identified-as gender groups.

Slight differences in the mix of gender and posting activity may be observed in the table, although this was not the main aim of the study. For example, in the excerpt taken from Cybermind's February 1996 archives, there were 12 identified-as female poster identities, and just over twice as many male identities active in that period — so that active female participants numbered half that of the males (4.8 female for every 10 male participants). At the same time, the proportion of posts contributed by each (identified-as) gender was *not* in the same proportion: the female posterIDs contributed 3.46 posts for every 10 contributed by males. In other words, while the number of female contributors is 32% of those active onlist for this strip of activity (i.e. 12 of the 37 participants), the number of posts contributed by female posterIDs overall is only 24% — i.e. 26 posts of the107contributed.

The table allows a comparison to be made with the posts from the 2002 strip, in which the mix changes. The ratio of female to male posters was much closer this time, with 6.4 female identities for every 10 males, and 6.25 posts contributed by females for every 10 contributed by males. This means that the number of contributions per posterID remains even across gender lines for the 2002 strip — the female posters in the excerpt from 2002 contributed on average, the same number of posts per posterID as did the males. Because the strip represents the averages for only two days of activity, however, such differences need to be scrutinised more closely. For example, if one of the posterIDs is very prolific, or contributes many short posts during the period examined for whatever reason, these types of statistics can be unduly weighted in favour of the gender of that identity. Standard deviations reveal that for the 2002 strip in particular, there were individual posterIDs that contributed many more posts than the other members.

Table 1: Overview of Cybermind interaction excerpts: 1996 & 2002

	No of posts	**No of words**	**Average No of words per post**	**No of *male* IDs**	**No of posts/ Av per *male* ID**	**No of *female* IDs**	**No of posts/ Av per *female* ID**	**Standard deviation**
1-2 Feb 1996	107	18,790	176	25	81 / 3.24	12	26 / 2.16	Fe: 1.25 M: 2.35
1-4 Feb 2002	130	19,490	150	14	80 / 5.71	9	50 / 5.55	Fe: 3.75 M: 5.21

Ignoring gender differences, the average number of posts per participant for the 1996 strip was 3, while for the same period in 2002 it was 5.5, so that the average number of posts contributed by each gender are not so different — males as a group contributed slightly higher than average, while females as a group contributed slightly lower than average. But Standard Deviations reveal that the 'norm' for each posterID was much lower than the average — and in fact, with respect to the 2002 strip, one prominent high status male member (male#9 — see further discussion below) of the group posted 22 times during this period, thus accounting for the rather high S.D. of 5.21. A similar factor accounted for the relative large S.D. of the female group for this period — although in this case it was 2 of the female posterIDs who together contributed 21 of the 50 items posted.

These statistics are useful for highlighting the fact that certain members of a group may be accorded high [status: prominence], and draws attention to their posting behaviour regarding the amount and kind of responses they garner, and the way in which they respond to others — thus perhaps helping to set the norms of the group over time. Here the focus on gender is intended to illustrate whether male and female posters were more or less supportive of either gender's contributions. To make a start in this direction, the classificatory framework outlined below allows the compilation of a set of differences in *addressivity* and *responsivity* features across both individual and gender lines. Such classifications allow a representative sample to show what "norms" of the list were being followed by each identified gender, and this type of profile also enables comparisons of one list's behaviour against those of another list.

Orientation to response

Under the broad heading of 'orientation to response' we are concerned to investigate how interactants indicate the relevance of their contribution to what has gone before and what is expected to follow. This approach is designed to capture some part of the intertextuality inherent in all texts as outlined by Bakhtin[34]. All responses are considered to either align with previous material or to reject it in some way, and this acts to position constructed audience members according to the assumptions brought into play by the text's arguments and social evaluations.

34 E.g. M.M. Bakhtin *Speech Genres and Other Late Essays,* Austin: University of Texas Press 1986.

Selection for text-type style represents an initial orientation to response on the part of the writer[35], but the texts were also tagged for a set of *responsivity* and *addressivity* features so that profiles of posting behaviour could be compiled. A simple 'system network' was developed as a means of assessing the frequency of the 5 main response styles or text-types using the Systemic Coder[36]. The Coder is able to create statistical data, comparing elements of the system and their relative occurrence.

Summarised below are the criteria on which the 5 *text-type style* categories are based, which relate to ways in which relevance to previous contributions are indicated — in other words, in what manner posts re-contextualise their contributions in terms of formatting.

- **Interactive style**: short excerpts of a previous contribution are interspersed/interrupted by the contributions/responses of the writer/poster, leading to a conversation-like formatting style.
- **Relevance-in style**: an excerpt of a previous contribution (usually) begins the post, which is then followed by a comment, which is usually expository, rather than brief.
- **Post-appended style**: the writer makes a contribution and appends the whole of the previous contribution(s) in the thread to the end of their post.
- **Non-quoted style:** there are no quoted excerpts of a previous contribution, but either the subject line or referents in the body of the post make the relevance/responsivity clear to involved participants.
- **Announcement style:** the writer does not make any overt reference to any previous post on the same list.

Posts were also classed according to whether they merely responded to an earlier contribution, or replied to the content as well[37]. The main criteria used to determine such 'responsivity' are set out below, but fundamentally, a Response refers to any proposition in a previous contribution. In this sense, it may merely refer to an idea to acknowledge it, or it may assert new information related to only one or two lexical

35 See Don 2007 for discussion of how text-type style and rhetorical purpose interact.

36 M. O'Donnell, *Systemic Coder 4.63.* 2002 Freeware: latest version available: <http://www.wagsoft.com/CorpusTool/index.html>

37 After Goffman (1981)

referents. As a Response (as distinct from a Reply, c.f. below), it will lack any *extended* reference to the respondant's experiential meanings, mood elements (such as subject, congruent finite element, or modal element), or evaluative positioning — and may indeed act to 'change topic'.

In contrast, a Response which is *also* a Reply will extend the propositions of the respondant's post, with the writer enhancing, elaborating or extending its experiential meanings, and taking up to support or refute (argue with) the evaluative positions adopted in the mood elements (subject+finite) of the responded-to post. The differences in orientation these types of responses engender contribute toward the recognition of other participants has having legitimate contributions to make. A Response which is not a Reply can act to efface the content or significance of the previous contribution and thus may act to reduce that participant's prominence or authority within the group.

A system network for the possibilities as to responsivity is provided below.

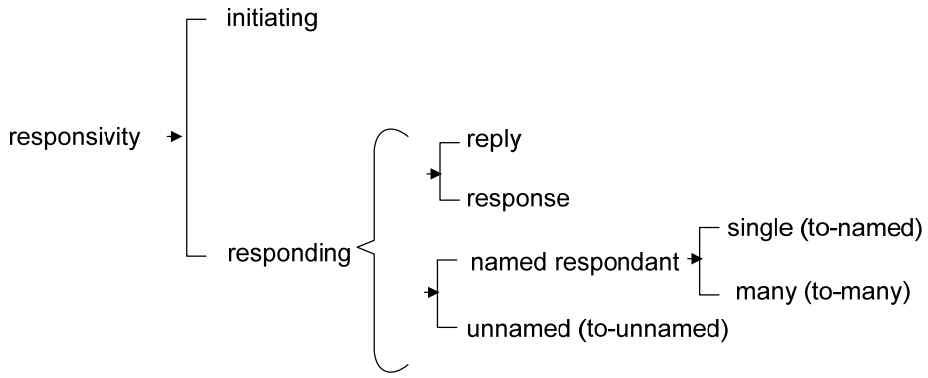

Figure 1: Responsivity options as a system network

This makes for the following possible repertoire of classifications for posts according to Responsivity

Initiation (non responding)
Response-to-named (single named respondent)
Response-to-many (multiple named respondents)
Response-to-unnamed
Reply-to-named
Reply-to-many
Reply-to-unnamed

Cross correlation of gender for *responsivity* results in seven categories for identifying posts according to perceived gender of the respondant, i.e. the writer of the responded-to post.

- *in-Response-to OR in-Reply-to male OR female:* The Response or Reply will be classified as 'to-male' or 'to-female' (i.e. Response-to-male/female, or Reply-to-male/female) when it is referencing a single prior post and the writer of that post (the 'respondant') is *explicitly identified* as the writer of this previous post.
  [This gives 4 categories]
- *in-Response to unnamed*: the topic of the thread is responded to but there is no indication anywhere in the post as to whom or what post motivated the response.
  [this category ignored for the purposes of this study]
- *in-Response OR in-Reply-to-many:* When more than one prior post is being referenced and names of the posters of those prior posts are included, then the post will be classified as 'to-many' (i.e. Response-to-many or Reply-to-many).
  [This gives 2 categories]
- *Initiation:* When the post does not indicate that the writer(s) is responding to any previous contribution, the responsivity is classed as *Initiation*. In practice, most contributions are *de facto* responses to some prior contribution or stimulus regarding audience and the writer's view of the audience, but this classification attends to those posts making no indication of a specific post to which it is responding.
  [This gives1 category]

The posts were also cross-classified by reference to a taxonomy which I label 'addressivity'. Thus, posts are classified by reference to both Responsivity and Addressivity, since differences in orientation between these parameters can highlight differences in both general orientation to response and in the posting behaviour of individual poster identities. Many posts for example may indicate that they are made *in response to* a specific earlier contribution, yet they may not *address* the poster of that contribution, or they may address a different set of projected readers. Similarly, Initiations, while not responding to a specific previous contribution are quite likely to

address themselves to the group as a whole. Thus, addressivity is a system for observing points in the text where there are directly invoked or referenced addressees who are not necessarily the writers of the responded-to prior post.

The taxonomy operates in the following manner:

- *Unaddressed*: A post is labelled as 'unaddressed' when it contains no instances of formulations which directly address some respondent —' that is to say, there are no indications that anyone is being directly addressed, hailed or interpellated by the post. This is typically the case for the announcement-style text-type, as well as for many Initiations. Forwarded material without comment, reports, and 'artworks' such as poems or narratives are examples of this 'unaddressed' type, but many 'true' responses also lack any overt linguistic indicators that the post is addressed to any one individual or group.

- *Addressed to unidentified*: A post is labelled as 'addressed to unidentified' when the writer uses some indicators of *addressivity* such as rhetorical questions, directives, or second person pronouns, but no specific identifiable individual or group is hailed or interpellated. In such instances there is no naming of audience or listmembers, or reference to a particular group.

- *Addressed to-group*: A post is labelled as 'to-group' when, rather than addressing a named individual or named individuals, the poster hails the list as a whole or indicates that s/he is making comments to a wider audience by formulations such as '*folks*', '*hi all*', '*you guys*', '*anyone here*', questions to the group as collective, 1st person plural forms (*we, us, our*), or other indicators that Addressees are not limited to one other poster.

- *Addressed to-named & to-many-named*: A post is labelled as 'to-named' when a particular named respondent is hailed or otherwise addressed, and as 'to-many-named' when multiple named listmembers are addressed. Here the analysis attends to such features as direct address using a name, a direct second person address (*you*), or rhetorical questions or directives regarding the content together with a named, or rather, 'identifiable' respondent.

This final category is correlated with addressee gender, if identifiable.

Where status within groups is dependent to some degree on [status: prominence], i.e. status accorded to a listmember via the frequency with which s/he is referenced or addressed onlist, failing to acknowledge the source of one's response, or a lack of any specific address to the respondant can be a method of 'effacing' the contribution of that poster. This is a factor in what I describe elsewhere[38] as 'negotiated identity'.

Results of the study

Table 2 below provides an overview of the activity on Cybermind during the period 1st–2nd February, 1996. This type of table ignores differences in gender, but shows the number and percentage of posts categorised under the features listed on the left. The category for gender of poster appears at the bottom of the table, and as noted above (c.f. Table 1), it shows that for this strip of list activity, males contributed 81, or 76% of the posts, while females contributed 26, or 24% of the posts.

Table 2: Breakdown of posting behaviour for February 1996

System	Feature	N	Mean
CM 96			
TEXT-TYPE-STYLE	1 interactive	3	2.8%
	2 relevance-in	32	29.9%
	3 post-appended	22	20.6%
	4 non-indicated	17	15.9%
	5 announce	33	30.8%
RESPONSIVITY	in-reply to female	16	15.0%
	in-reply to male	27	25.2%
	in-response to female	12	11.2%
	in-response to male	14	13.1%
	in-response to many	6	5.6%
	in-reply-to-many	1	0.9%
	initiation	31	29.0%
ADDRESSIVITY	to-female	12	11.2%
	to-male	30	28.0%
	to-many	47	43.9%
	unaddressed	18	16.8%
POSTER-GENDER	male (25) 68%	81	75.7%
	female (12) 32%	26	24.3%

38 Don (2007) *A framework for the investigation of interactive norms in written discourse communities*. University of Birmingham, UK: Unpublished PhD thesis.

By observing frequency of *text-type style* selection in Table 2 above, some idea of the 'norms' of the list can be gauged: we note that posters in this strip favour either the *relevance-in* style, in which a short excerpt of a previous post is quoted and then responded to in detail, or the *post-appended* style where the whole of the responded-to post is appended to the bottom of the response. It is also evident there is a high proportion of *announcement* style posts (31%), where no response to previous posts is indicated. This is reflected in the similarly high proportion of *Initiations* under Responsivity. Cybermind at this time can be characterised as having a high proportion of posts which *do not orient to response in overt ways* — i.e. they do not acknowledge the source or impetus for the posting, but assume that others on the list will find the contribution meaningful without any overt indicators of response. In terms of Addressivity, a high proportion of posts also do not contain any features which call on the attention of audience members in overt ways, and can be labelled as *unaddressed* (17%), or *addressed-to-many* (44%) which supports this interpretation. Posts classed as *addressed-to many* do not engage in individually-directed response or discussion, but address themselves to a general de-individuated group. The following example illustrates this type of Responsivity and Addressivity:

> Subject: test post [ignore]
> From: male#5(userID@email)
> Date: Thu, 1 Feb 1996 00:32:41 -0600
>
> whatever you do, do not ignore this important message.
> [genCM96.16/male#5]

With this post, the subject line indicates that the content of the post is not to be taken seriously. It features a bracketed directive to "ignore" the post, a common practice in lists where posters need to discover whether their mail is getting through and in what form.

In this case, the Addressivity of the post, *to-many*, is based on the use of the directive (imperative mood) in both the Subject line and the Body of the post, and the reference to indeterminate *you*. The body of the post in this case can be considered a form of play, a conceptual 'artwork' featuring paradox — it refers to the fact that, given the directive in the Header of the post, very few in the audience would read it, and yet it contains another directive contradicting the first, and addressing a non-specific *you*. It is the reference to the conventional 'test post', however, which provides the relevance

of this post (its 'orientation to response') for most subscribers familiar with list membership. This is despite its status as *Initiation*. In terms of its text-type style of course, it is classed as *announcement-style*.

The same set of categories are displayed in following table (3), which provides statistics for the other strip of list activity excerpted from the interaction of the list six years later, February 2002.

Table 3: Breakdown of posting behaviour for February 2002

System	Feature	N	Mean
CM 02			
TEXT-TYPE-STYLE	1 interactive	2	1.5%
	2 relevance-in	34	26.2%
	3 post-appended	43	33.1%
	4 non-indicated	9	6.9%
	5 announce	42	32.3%
RESPONSIVITY	in-reply to female	12	9.2%
	in-reply to male	25	19.2%
	in-response to female	21	16.2%
	in-response to male	21	16.2%
	in-response to many	12	9.2%
	in-reply-to-many	0	0.0%
	initiation	39	30.0%
ADDRESSIVITY	to-female	16	12.3%
	to-male	31	23.8%
	to-many	28	21.5%
	unaddressed	55	42.3%
POSTER-GENDER	male (14) 60.8%	80	61.5%
	female (9) 39.1%	50	38.5%

Table 3 above shows that for the 1st–4th February 2002 strip of list activity, female posterIDs made up 39.1% of the active posters, and contributed 38.5% of the posts, while males made up 60.8% of active posters and contributed 61% of the posts. As mentioned previously, averages are not a reliable indicator of normative behaviour. The median number of posts contributed by females for this strip is 7, whereas for the males it is 4.5 (c.f. Table 1) — it appears that a number of individual identified-as female posters were posting much more than the female average. Indeed, 5 of the 9 female IDs contributed more than 6 posts each during this time, and 2 contributed 10

and 11 posts respectively. The standard deviation for these sets of posts does point to list activity where not everyone posts at the same rate: for female posters the S.D. was 3.7, whereas for the larger set of male posters it was 5.2. A small set of males were posting much more than the average: 3 male posterIDs of the 14 active IDs at that time, each contributed over 7 posts.

This suggests that it may be the type of posts, or the *content* of posts made by these high volume posterIDs — more especially what types of responses their posts engender — which underlies status in this group. A much longer strip of list activity is required to discover whether markedly high volume correlates positively with high status and/or deference within the group, as determined by the type and number of responses garnered, but some of the data certainly suggests that status and hence authority to determine the norms of the list is dependent on how poster-identities regularly respond to others and how they are treated in response. At the same time, whether perceived gender is a factor in this requires analysis of more extended periods of list activity.

Table 4, which follows, is based on the 1996 strip of activity, and illustrates how each gender may differ in its preferred list behaviour. Preferences for *text-type style* are similar, although there is a difference (only 1 versus 2) in terms of the preference for the *interactive style* on the part of female posters. However, this style is not a conventional style for Cybermind (c.f. Tables 2 & 3 above) and it remains to be determined whether specific posters employ such marked behaviour in spite of convention, or whether a number of female IDs have employed this style for a longer period of time. There is also a relative difference in terms of an apparent female preference for the *non-quoted style* over the *relevance-in* — in other words, females in this strip are exhibiting an apparent preference for the 'less conventional' text-type styles.

The use of these 'low-signal' styles of orientation to response could indicate that female posters were more *involved* in list activity than the males were — in other words, that they assumed their readers did not need to have their contributions re-contextualised with indicators of relevance, or that relevance would be apparent to their readers. Recall that posts in the *non-quoted style* indicate their response to

another contribution by something said in the *content* of the post, rather than by overtly formatting or framing the post (through for example quoting) to indicate relevance to the discussion. Such posts may even be addressed to someone specific (i.e. not necessarily the writer of the responded-to post) which at the same time not be *overtly* re-contextualised by excerpts from previous posts. In fact, the 6 posts contributed in the *non-quoted* (or 'non-indicated') style by female posters were made by 4 different identities, showing that it was not an individual quirkiness weighting the results.

Table 4: Posting behaviour 1-3 February 1996 by gender

System		**Male**				**Female**	
	%	**N**	**T-stat**		**%**	**N**	**T-stat**
TEXT-TYPE-STYLE		81				25	
1 interactive	1%	1	1.79 +		8%	2	1.79 +
2 relevance-in	36%	29	2.30 ++		12%	3	2.30 ++
3 post-appended	20%	16	0.45		24%	6	0.45
4 non-indicated	12%	10	1.42		24%	6	1.42
5 announce	31%	25	0.11		32%	8	0.11
RESPONSIVITY		81				25	
in-reply to female	16%	13	0.49		12%	3	0.49
in-reply to male	26%	21	0.19		24%	6	0.19
in-response to female	11%	9	0.44		8%	2	0.44
in-response to male	11%	9	1.14		20%	5	1.14
in-response to many	4%	3	1.57		12%	3	1.57
in-reply-to-many	1%	1	0.55		0%	0	0.55
initiation	31%	25	0.65		24%	6	0.65
ADDRESSIVITY		81				25	
to-female	11%	9	0.12		12%	3	0.12
to-male	27%	22	0.47		32%	8	0.47
to-many	42%	34	0.53		48%	12	0.53
unaddressed	20%	16	1.37		8%	2	1.37

Of greater interest is the *ways* in which each gender oriented to response revealed by tables of this type. For example, Table 4 above shows that males appear to *Reply* to females at a greater rate than females Reply to females: 16% versus 12%, a difference of 25%. This suggests that, for this strip of list activity, males accord higher status to contributions by identified-as females than do females. On the other hand, males also

downgraded their responses to females by treating them as mere 'springboards' (i.e. as *Responses* only) for their own new contributions — in this case 11% of **male** *Responses to females* were of this type, compared to 8% for **female** *Responses to females*. At the same time, females treated male contributions in similar fashion, *Responding* to them rather than *Replying* in 20% of their posts. In contrast, males selected the Response-only option to males with relatively lower frequency than did females (11%).

One interpretation of these statistics is that males employ *Responses* (as distinct from *Replies*), irrespective of respondant gender, but that females are more likely than males to use the *Response*-only option when their respondants are identified-as male. Moreover, while males are more likely to *Reply* to males than to females, this difference in ratio is wider for female posters, who are even less likely to *Reply* to females. Once again, since there are proportionately higher numbers of identified-as males active onlist, there are thus higher numbers of posts contributed by males, and this then engenders higher in-response rates to this group. At the same time, the differences in *relative* ratios of both Responses and Replies across gender lines suggests that males as a group, are more gender-neutral in their orientation to response than the females are.

Table 5 below shows similar statistics on posting behaviour for each gender for the 2002 strip analysed. The preferences for text-type style differ for this strip, however, with, for example, the *non-quoted/non-indicated* style falling out of favour for both genders. Female use of the *announcement* style is proportionately less than for the 1996 strip, and again less than the male use of this style. For this strip of list activity, female posters favour instead the *post-appended* style, which has become more conventional for this list.

Table 5: Posting behaviour 1 –3 February 2002 by gender

System		**Male**				**Female**	
	%	**N**	**T-stat**		**%**	**N**	**T-stat**
		80				50	
TEXT-TYPE-STYLE							
1 interactive	1%	1	0.34		2%	1	0.3
2 relevance-in	25%	20	0.38		28%	14	0.38

3 post-appended	28%	22	1.72 +	42%	21	1.72 +
4 non-indicated	8%	6	0.33	6%	3	0.33
5 announce	39%	31	2.00 ++	22%	11	2.00 ++
RESPONSIVITY						
in-reply to female	6%	5	1.49	14%	7	1.49
in-reply to male	15%	12	1.55	26%	13	1.55
in-response to female	19%	15	1.01	12%	6	1.01
in-response to male	11%	9	1.93 +	24%	12	1.93 +
in-response to many	13%	10	1.63	4%	2	1.63
in-reply-to-many	0%	0	0.0	0%	0	0.0
initiation	36%	29	1.98 ++	20%	10	1.98 ++
ADDRESSIVITY						
to-female	10%	8	1.01	16%	8	1.01
to-male	18%	14	2.17 ++	34%	17	2.17 ++
to-many	26%	21	1.66 +	14%	7	1.66 +
unaddressed	46%	37	1.15	36%	18	1.15

Males make relatively more Initiations than females do — 22.5% more for the 1996 strip and 44% more for the 2002 strip — and this speaks to the hypothesis that status and authority in any group has more to do with who in the group controls, or feels they have control over, the conversation and the initiation of topics, rather than who or what group contributes the most. On Cybermind, the question arises as to whether this a function of one of the norms of the list where posts comprised entirely of prose poems and 'forwards' are common — and thus males could be said to be *following* convention — or whether this convention of the list is due to the fact that the highest proportion of this style of post was posted by male identities who thereby *set* the convention.

The results suggest that males were more willing to introduce new topics or to post 'free-standing' contributions, as distinct from overtly interactional contributions. Some support for this observation is also provided by the statistics pertaining to Addressivity features. Namely, that female posterIDs address their contributions to specific named listmembers at a higher rate than the males do. This is made clearer if the percentages

of posts using specific addressees are considered together as in Table 6 below (c.f. Tables 4 & 5 above):

Table 6: Summary of addressivity by gender

1996 strip		
	% by Male posters	% by Female posters
to Specific addressee	38	44
to Non-specific addressees	62	56
2002 strip		
	% by Male posters	% by Female posters
to Specific addressee	28	50
to Non-specific addressees	72	50

Here it becomes obvious that females address their posts to specific others at a higher rate than the males do, who in turn are more likely to address their contributions to the audience as a whole. At the same time, if the focus is limited to specific addressees only, it appears that both males and females are more likely to address their posts to males (see Table 7 below). However, in this case the higher number of active male versus active female posters onlist at this time might account for this aspect of list behaviour.

Table 7: Summary of specific gendered addressee by gender

1996 strip		
	by Male posters	by Female posters
To specific female	11%	12%
To specific male	27%	32%
2002 strip		
	by Male posters	by Female posters
To specific female	10%	16%
To specific male	18%	34%

The following two tables (8 and 9) provide a more focussed picture of the Addressivity of the list for the two periods. In these tables, each of the Addressivity categories is cross-correlated with Responsivity and poster Gender. Here we note some oddities — such as the fact that for the 1996 set, a post made in response to a male post, was addressed to a female, and that one reply to a female was addressed to a male. Also, as

already indicated, most of the *unaddressed* posts were *Initiations* and were in turn made by males, with a similarly high proportion of the addressed *to-many* posts also made by male posters.

Table 8: Correlation of Addressivity features for February 1996

	To female		To male		To many		unaddressed	
CM 96	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**
RESPONSIVITY		12		30		46		18
in-reply to female	50%	6	3%	1	20%	9	0%	0
in-reply to male	0	0	83%	25	4%	2	0%	0
in-response to female	42%	5	0%	0	13%	6	0%	0
in-response to male	8%	1	10%	3	22%	10	0%	0
in-response to many	0%	0	3%	1	9%	4	6%	1
in-reply-to-many	0%	0	0%	0	2%	1	0%	0
initiation	0%	0	0%	0	30%	14	94%	17
POSTER-GENDER		12		30		46		18
Male (25)	75%	9	73%	22	74%	34	89%	16
Female (12)	25%	3	27%	8	26%	12	11%	2

Table 9: Correlation of Addressivity features for February 2002

	To female		To male		To many		unaddressed	
CM 02	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**
RESPONSIVITY		16		31		28		55
in-reply to female	75%	12	0%	0	0%	0	0%	0
in-reply to male	0%	0	74%	23	0%	0	4%	2
in-response to female	25%	4	0%	0	21%	6	20%	11
in-response to male	0%	0	23%	7	21%	6	15%	8
in-response to many	0%	0	0%	0	21%	6	11%	6
in-reply-to-many	0%	0	0%	0	0%	0	0%	0
initiation	0%	0	3%	1	36%	10	51%	28
POSTER-GENDER		16		31		28		55
Male (14)	50%	8	45%	14	75%	21	67%	37
Female (9)	50%	8	55%	17	25%	7	33%	18

The tables above show that the proportion of *Replies* to females which are also addressed to females changes from 50% to 75% with respect to the two periods used here, and it is likely that this is linked to the higher female participation rates of the 2002 period. Similarly for the 2002 strip, the proportion of *unaddressed initiations* goes down overall, and with it the relative difference in male versus female use of this

addressivity feature. Recall that for the 2002 strip of list activity (see Table 3), female posterIDs represented approximately 39% of active posters, with males representing almost 62%. Once more, a comparison of rates of *addressivity* for this period shows that 34% of individually addressed posts were addressed to females, and 66% of individually addressed posts were addressed to males (c.f. Table 9 above: 16 versus 31 posts), so that rate of participation does affect "recognition" rate as well.

The ratio of posts addressed to males versus females appears to parallel the actual ratio of gendered active posterIDs, suggesting that addressing either male or female respondants is evenly distributed on the list when numbers of active posters of either gender is taken into account. On the other hand, while those posts addressed to female participants originate from either gender in equal number, female posterIDs address a higher proportion of their posts to males. This may suggest that females accord the males a slightly higher status or authority, or it may be that females feel more comfortable addressing males, or, again, it seems that the higher proportion of active male posters onlist means that they are more prominent and produce a greater number of posts — thus they are able to set the norms of the list by sheer force of numbers.

It is also possible to investigate the formation of individual posterID status in a group using a combination of addressivity and responsivity features. As argued earlier, status is viewed as partly a function of *prominence*, i.e. raw number of posts contributed plus mention of that poster by name in the contributions of others. This latter element may have less to do with number of posts made, than with number of responses garnered in which reference is made to specific identities. While the sample here is too small to draw definitive conclusions, it suggests that males were given slightly higher prominence and/or status within this strip of list activity despite the almost equal participation rates of the female posterIDs.

Table 10 below for example, shows how the number of posts contributed by specific posterIDs does appear to correlate positively with the number of times their name is mentioned or repeated onlist. The figures in the table below reflect frequency of "mentions" in strips from which posters' own handles and actual headers had been removed. Quoted material including headers and the names of respondants, however, have been taken into account in calculating numbers.

Table 10: comparison of high volume posters and number of mentions received for strip 2002

posterID	Number of posts	Number of mentions	Ratio
Male #9	22	56	+61%
Female #14	11	36	+69%
Female #13	10	9	-11%
Male #12	9	19	+53%
Male #18	9	8	-11%
Female #17	7	10	+30%
Male #29	5	22	+77%

The case of male #29 is interesting since, although he was not a prolific poster, one of his posts was responded to favourably by another prolific poster (female #14). His contribution contained a URL for a website where one could visit and take a 'psychological test' which also gave instant readings to the test-taker. Thereafter the same website and test was visited and commented upon by a variety of other listmembers during this period, and thus this poster's name was mentioned more often than would be usual. However, so-called *mentions* are not the same as direct address, and while the name of male#29 was repeated 22 times subsequent to his initiating post, only 3 of these (2 by female#14) addressed the poster directly. This is in contrast to male#9, a high status member who posted a high proportion of Initiations. In fact, male #9 is also the most prolific poster, having posted 22 times (of the 80 posts contributed by males) in the 2002 strip. 15 of those posts (i.e. 68%) were also Initiations. In response to one of these Initiations, male#9 was directly addressed 6 times by 6 different posterIDs (4 males and 2 females). In contrast, during this 2002 strip, male#9 only once directly addressed another listmember (male), whereas he was directly addressed a total of 9 times.

Again, status and authority within a group depends more particularly on *how* a post is responded to, and while *responsivity* and *addressivity* do go some way towards identifying patterns of behaviour, this identification of patterns highlights areas in which further investigation of the ways in which identities are referred to, and how their ideas and propositions are evaluated within responses, would provide a more

fine-grained profile of the status of both individuals and sub-groups—such as perceived gender—within any group interaction.

As a final example, the post excerpted below from the 2002 strip, has been tagged with the following features: *relevance-in*; *in-response-to-female*; *addressed to-female*; *by-male*. The addressivity of *to-female* is a borderline case, however, since nowhere is the respondant directly addressed, highlighting what was observed earlier regarding the lack of direct address and its relationship to reduction in recognition, and hence status:

> [genCM02.97/male#14]
> Date: Sun, 3 Feb 2002 09:04:58 -0600
> From: male#14 <userID@email.COM>
> Subject: Re: Chateaubriand anybody?
>
> on 2/2/02 8:28 AM, female#14 at userID@email wrote:
>
> >>At the risk of regurgitation, retaliation, retribution,
> >>reactionary reticence, I suggest we void this vector'd approach
> >>and dele with egg-centric topics of a more tasty nature.
> >>
> >>
> > R-,
> >
> > A chateaubriand may be your cup of tea, but please don't egg me
> >on. Save my bacon and dig into the prime cut yourself. Gotta watch
> >out for my LDL, in a nutshell!!!
> >
> > S-
> >
>
> dear god. She DID mention LDL. My oh my oh my.
> Raising those good little cholesterals, are we?
> Like chicks in a hen house?

In fact, the response given speaks about the respondant in the third person: *she DID mention LDL*; and subsequently uses the "royal plural" as a way of indicating incongruence of address, and hence, that the interchange is to be taken as a joke: *Raising those good little cholesterols(sic), are we?* At the same time, the next line combines the chicken/egg pun which is the theme of the thread in which the post appears, with a joking reference to women — one raising somewhat negative stereotypes, and one which might be difficult to counter without also giving rise to claims of humourlessness: *Like chicks in a hen house?* In the negotiation over status and authority in any strip of group activity, the social roles invoked and interactant

positionings they provide, must also be factored in to any analysis. When such negotiation is overlaid with expectations as to gender roles, such positioning may be difficult to resist.

Conclusion

The two strips of list activity taken from two different periods of the mailing list Cybermind illustrate how a framework such as the one outlined may be used to highlight areas of negotiation over norms and practices within a group. The study presented above suggests that perceived, or identified, gender may be one factor in this negotiation, especially when participation rates are weighted in favour of one gender over another. On the other hand, norms are no doubt a function of both prominence, i.e, rates of posting, as well as authority, i.e. participants' recognition and engagement with the content of the posts themselves. It is in this area that the main gendered differences revealed by the study can be located. The results suggest that female posters may orient more directly to the writers of contributions in their responses to them, and are more likely to directly address their interlocutors than the male respondents are. Male posterIDs are more likely to adopt an initiating role (relative to a responding role), and when they do respond, they are less likely to directly address their respondants, preferring to use their response to address the audience in general, and to 'claim the topic' for themselves.

An orientation to response which engages more directly with interlocutors can contribute to participant status in terms of their recognition as legitimate members of the community, as distinct from status based on mere rate of posting. Authority and status onlist can be gauged rather by how many different posters respond positively to a poster's contributions, and conversely lack of status can be correlated with lack of response, and moreover, lack of direct address and thus effacement of the poster's list participation.

The fact that females tend to more directly address and call on the attention of other list members may reflect their need to signal alignment with others onlist, or to thereby claim familiarity with them. This paper argued earlier that low status members in social groups can indicate their membership of the group by *acquiescing* to the

conventions set by those with high status: authority, and that indicating this membership can involve reproducing these conventions or claiming alignment with high status members. From this perspective, the present study also suggests that females as a group may actively try to align with the perceived norms of the group and its high status members in order to be recognised as legitimate participants.

At the same time, rather than identified females as a group being ignored or being given lower status in the group through lack of response and address, it is lower rates of participation which results in lower rates of response and address to female posters. Furthermore, the results also suggest that female posters may actually act to develop list norms and help identify high status members —who then 'set' the norms — through their active support and engagement with the ideas and contributions of these other members.

All of these interpretations on list participation in these strips of activity is based on the human need to belong and be recognised as a legitimate identity within any group. Whether the overall lower number of female participants is related to socialisation processes which result in there being fewer females willing to speak up — or 'write up' — in the relative glare of public email lists, or whether the nature of female versus male orientation to response indicates that females as a group are more concerned with relationship and alignment, the fact of the body and its responses to interaction cannot be ignored. When our voices are likely to be judged and commented on by a group of unknown others, it is perhaps easier for those for whom the discourse of social life has not been experienced as stressful in the past. When argument and participation on email lists (as anywhere else) continues to be influenced by certain assessments as to gender roles, it might be expected that the individual bodies behind the screens might yet find the prospect emotionally daunting when past experience is factored in.

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