Groups and Individuals:
Conformity and Diversity in the Performance of Gendered Identities

Robert Evans, Harry Collins, Martin Weinel, Jennifer Lyttleton-Smith,
Hannah O'Mahoney and Willow Leonard-Clarke

VERSION HISTORY

This is the authors' version of a work that was submitted to the *British Journal of Sociology* on 22 July 2017 and accepted for publication on 1 June 2018. It is being made available in accordance with the publisher's policies on open access.

Please note that changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version.

For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper. For this, and other information, please go to: https://doi.org/10.1111/1468-4446.12507

Contact details (corresponding authors)

Robert Evans
Cardiff School of Social Sciences
Glamorgan Building
King Edward VII Avenue
Cardiff CF10 3WT
UK

Emails: EvansRJ1@Cardiff.ac.uk

Groups and Individuals:

Conformity and Diversity in the Performance of Gendered Identities[1]

Abstract

The nature and role of social groups is a central tension in sociology. On the one hand, the idea of a group enables sociologists to locate and describe individuals in terms of characteristics that are shared with others. On the other, emphasising the fluidity of categories such as gender or ethnicity undermines their legitimacy as ways of classifying people and, by extension, the legitimacy of categorisation as a goal of sociological research. In this paper, we use a new research method known as the Imitation Game to defend the social group as a sociological concept. We show that, despite the diversity of practices that may be consistent with self-identified membership of a group, there are also shared normative expectations – typically narrower in nature than the diversity displayed by individual group members – that shape the ways in which category membership can be discussed with, and performed to, others. Two claims follow from this. First, the Imitation Game provides a way of simultaneously revealing both the diversity and 'groupishness' of social groups. Second, that the social group, in the quasi-Durkheiminan sense of something that transcends the individual, remains an important concept for sociology.

Keywords

Imitation Game; Interactional Expertise; Contributory Expertise; Gender; Social Group; Sociology

Introduction

Sociological research has played an important role in challenging conventionally accepted categorisations of gender (Bernard 1975; Grant et al. 1987; Sprague and Zimmerman 1993). Masculinity and femininity were first pluralised, then seen as a continuum, and are now supplemented by a range of post-gender identities (e.g. Butler 2006). This transcending of dualistic thinking has many social and theoretical payoffs, not least that it provides a base from which to resist the discrimination that can result from the inappropriate expectations created by reductive labels (Oakley 2015). In this paper, we take a different approach. We examine how the traditional categories of gender – man and woman – are understood and operationalised by ordinary citizens to whom these categories are still meaningful. We do this not to reinforce outdated ideas, but to address a broader question about the nature of the social group as a sociological concept. In other words, rather than using social science to expose the social construction of gender, we want to use the increasingly complex experiences of gender to reveal the value of groups to sociology.

There are two topics of interest here. The first is how individuals who are prepared to self-identify with one of the traditional labels understand the range of actions that are consistent with being a member of that group and how they position themselves in relation to this understanding. The second is how these accounts or performances of gender can be used to inform a sociological understanding of social groups that emphasises the importance of what is shared by group members without accepting an overly structuralist theory of society in which members' agency is denied.

We approach these questions using data collected with a new research method called the Imitation Game (Collins et al. 2006; Collins and Evans 2014; Collins et al. 2015) in which

players are asked to reflect on the experiences that make their social group distinctive and explore how far these experiences are visible to others. The Imitation Game does not quantify the distribution of these experiences as a survey might; instead the aim is to reveal the extent to which experiences are known about by others, regardless of whether they have experienced them directly. The link to understanding the nature of social groups is made by analysing the range of experiences that participants identify as being consistent with group membership (an indication of how heterogeneous the group is) and the extent to which plausible descriptions of these can be provided by those who are not members of the group (an indication of how open the group is). Although we illustrate our argument with data drawn from Imitation Games on the topic of gender, the contribution of the research lies primarily in the method and the questions it raises about the role and nature of the 'group' in sociological research.

The Imitation Game

The Imitation Game is a new research method that generates both qualitative and quantitative data (Collins and Evans 2014; Collins et al. 2015). It is based on the parlour game that inspired the Turing Test used by computer scientists to operationalise the idea of artificial intelligence (Turing 1950). In a Turing Test, a computer and a human answer a series of questions set by a human judge. If the human judge cannot work out which answers come from the human and which from the computer, the computer is said to be intelligent. In the parlour game, all the players are human, with the entertainment arising from the ability of one player to pretend to be something they are not. In the example Turing used to illustrate the idea, the judge might be a woman, and the other two players a man and a woman, with the man asked to answer as if he were a woman.

In our research, we have formalised this parlour game to create a social research method that is capable of dealing with anything from a handful of participants to several hundred. In what follows, we capitalise Imitation Game whenever we refer to the research method and use capital letters to signify the distinct roles – Interrogator, Pretender, Non-Pretender and Judge – that research participants can take. The research reported in this paper was designed to explore the effects of different protocols on the data collected, which in turn created the need for a large number of Imitation Games on the same topic. Gender was chosen as the common topic for these Games because it provided the largest possible pool of research participants.

Imitation Games in Practice

A simple Imitation Game consists of three players. One player plays both the Interrogator and Judge roles, first asking questions and then judging the answers provided. The other two players answer the questions. The Non-Pretender is from the same social group as the Interrogator/Judge, and is instructed to answer 'naturally' and 'as themselves', by which we mean that the Non-Pretender should describe their own experiences or views and not give the answer they think a 'typical' or 'normal' member of their group would give. The Pretender is played by a participant from a different social group and must answer 'as if' they belong to the same social group as the Interrogator/Judge and Non-Pretender. Thus, in the Games reported here, if the Interrogator/Judge is a woman, then the Non-Pretender is also a woman and the Pretender is a man answering as if he is a woman.

Playing a large number of three-player Imitation Games in sequence is extremely time-consuming. Using bespoke software developed as part of the larger project from which these data are drawn it is possible to play a large number of these games simultaneously.[2]

We call playing real-time Imitation Games in parallel 'Step 1' as it may be followed by a number of other steps in which more data is gathered. For example, the questions generated by Interrogators during Step 1 Games can turned into online surveys and distributed to new participants to increase the number of Pretender answers. This is called Step 2. Step 3 is a database operation in which Pretender answers from Step 2 are linked to the appropriate questions and Non-Pretender answers from Step 1 in order to produce as many new and unique transcripts as there were Pretenders at Step 2. In Step 4, these transcripts are sent to a new sample of Judges who are, like Step 1 Interrogator/Judges, members of the target group. In addition, all players at Steps 1, 2 and 4 can be asked to provide demographic, attitudinal or other survey data. Further details on all aspects of the Imitation Game method can be found in a number of other publications (Collins et al. 2006; Evans and Collins 2010; Evans and Crocker 2013; Collins and Evans 2014; Wehrens 2014; Collins et al. 2015; Collins 2016).

Imitation Game Players as 'Proxy' Researchers

A key feature of the Imitation Game is that participants are responsible for creating the questions, producing the answers and evaluating these answers – the roles of Interrogators, Non-Pretenders, Pretenders and Judges respectively. In an Imitation Game where women play the role of Interrogator, it is women who decide which aspects of their experiences are likely to be shared by the women in the Non-Pretender role, but which will be unknown to the men in the Pretender role. Likewise, it is the women in the Judge role who decide which answers appear most authentic and hence whether the Pretender has 'passed' or not. Although some guidance is given about what Interrogators should consider when creating

questions, this relates to the form of the question not its content. The instructions given thus ask participants to:

- Use questions that include requests for reasons or explanations as these are more likely to be revealing than questions that have a simple or one-word answer
- Avoid questions that will make the data difficult to re-use in different contexts (e.g. do not ask about people who are in the room at the time the research is taking place)
- Observe appropriate standards of behaviour and not provide questions or answers that are deliberately offensive.

Within the envelope of possibilities created by these instructions players are free to ask what they want and reply in whatever manner seems most appropriate. In this sense, the players act as 'proxy researchers' (Collins and Evans 2014) with Interrogators creating 'interview schedules' and the Non-Pretenders and Pretenders providing 'data' that the Judges the 'analyse'. It is also possible that, by challenging Pretenders actively to take the perspective of the other social group, participating in an Imitation Game might undermine stereotypical assumptions, particularly if the Imitation Games are precursors to group discussions between participants (e.g. Wehrens 2014).

This emphasis on the participants' expertise follows from the ideas associated with the 'Studies of Expertise and Experience' (SEE) programme in Science and Technology Studies (STS) that informed the development of the Imitation Game (Collins and Evans 2002; Collins and Evans 2007). SEE's starting point is Wittgenstein's idea of a form of life and the insight that 'knowing how to go on' means becoming a fully socialised member of the relevant

social group. Expertise is then seen as fluency in the language and practices that define the group and which give it its distinctive culture and form.

The second important feature of SEE is the way it treats the physical practices of a group and the language used to describe those practices, what we call the practice-language (Collins 2011). In many cases, the practice-language and the practice will be learnt together through socialisation into the relevant social group. We call this kind of expertise 'contributory expertise' and, because expertise is understood as the outcome of successful socialisation, there are contributory expertises associated with small, esoteric groups like physicists specialising in gravitational wave detection (Giles 2006; Collins 2016) and with larger communities based on religion, sexuality or gender (Collins 2013; Collins and Evans 2014; Collins and Evans 2015b) One consequence of this approach is that differences in the status or distribution of different domains of expertise are seen as sociological, not epistemological, phenomena.

Closely related to contributory expertise is the idea of 'interactional expertise' (Collins 2004; Collins and Evans 2015a), which is defined as fluency in the practice-language used by a social group. Contributory experts are interactional experts too because linguistic interchange, with only the rarest of exceptions, is associated with learning to see the world as an expert in the process of learning a practice. The novel claim made by SEE is that the reverse is not true and that is possible to become an interactional expert – that is to say, master a practice-language – without acquiring the corresponding contributory expertise and, in principle, to do so without any experience of the practice at all; the only requirement is extensive immersion in the linguistic practices of the relevant social group (Collins and Evans 2007; Collins 2011).

If this theory is correct, then the distribution of interactional expertise – who has it and in what domains – will be shaped by the relationships between different social groups and, in particular, the extent and depth of their interactions (Evans 2008; Evans 2011; Evans and Crocker 2013). This, in turn, leads to predictions that can be tested using the Imitation Game because, for a Pretender to succeed in an Imitation Game, they need to display interactional, not contributory, expertise. In cases where the target group is difficult to access, we would expect Pretenders to struggle to produce plausible answers as they will not have had the opportunity to develop the interactional expertise needed to describe the group's culture and practices in an authentic way. In contrast, where the Pretender group has a great deal of social interaction with the target group, then producing plausible answers should be easier because Pretenders will know the sort of thing that a real 'X' would say.

The task of the Pretender is also made more or less difficult by the homogeneity or heterogeneity of the target expertise. Where the experiences of the target group are extremely homogeneous there is only one right answer and the Pretender must say exactly the right thing to match the answer given by the Non-Pretender. In contrast, if the target group is very heterogeneous, then Non-Pretender answers will vary significantly and a much wider variety of Pretender answers will appear plausible. Combining these two different dimensions – open/closed, homogeneous/heterogeneous – gives the set of expected Imitation Game outcomes summarised in Figure 1.

Figure 1: Potential Imitation Game outcomes about here

The Imitation Games reported in this paper can be characterised as belonging in the top row of Figure 1 and, more specifically, the top right-hand cell. The *a priori* expectation is that Pretenders are likely to succeed because men and women have many social interactions, so there is plenty of opportunity for interactional expertise to be developed, and the diverse ways in which gender can be performed means that many questions will have a wide range of legitimate answers.

Imitation Games with Individuals and Groups

As noted in the Introduction, the Imitation Games reported in this paper were designed to investigate how changes to the ways in which Games were organised influenced the results. In particular, we knew that Imitation Games on the topic of gender could produce relatively high pass rates for Pretenders when played by individuals (Collins and Evans 2014) but we wanted to test the effect of playing Step 1 Games with small groups of two or three players.[3] The hypothesis was that playing Step 1 in groups might lower the pass rate – i.e. make it more difficult for Pretenders to succeed -- by reducing amount of 'noise' in the data and making it easier for Judges to correctly identify the answers provided by the Non-Pretenders. The ways in which we thought this might happen included:

1. Interrogators would discuss questions with other team members and this would weed out questions that were unlikely to discriminate between the two groups
2. Pretenders would pool their expertise when creating answers, forcing Interrogators to reflect more deeply on their own experiences, and improving any subsequent questions

3. Non-Pretenders would have to agree an answer that reflected their shared experiences and this should reduce the frequency of atypical or idiosyncratic responses
4. Playing as a team should reduce the chances of instructions not being followed as mistakes by one member of the team would be corrected by another
5. Playing as a team may be more enjoyable than playing as an individual and this may improve the motivation of participants

For the Imitation Games discussed in this paper, 84 Step 1 Games were played over four separate sessions, with equal numbers of men and women in each session. Men played the roles of Interrogator/Judges and Non-Pretenders and women the role of Pretender in half of these Games, with the roles being reversed in the other half. Within each gendered half, 18 Games used teams of players and the remaining 24 were played by individual players. All other roles (Step 2 Pretenders, Step 4 Judges) were played by individuals and all Step 4 Judges received a mix of transcripts from individual and group Games

For mainly practical reasons, the participants were recruited from the undergraduate student population which, whilst not representative of the population in general, does at least control for important demographic variables such as age and education. In addition, to the extent that students are from a range of backgrounds and experiences, they are likely to occupy the heterogenous portion of Figure 1. Participants were recruited via email and posters and were allocated to roles on the basis of their self-identification as a man or a woman. We did not ask whether the way the identified corresponded to the gender they were assigned at birth. Any transgender participants are, therefore, included in the group with which they chose to identify at the time of the research. We also did not stratify or

sample by categories such as sexuality or ethnicity as we wanted to recruit a sample that reflected the diversity of men and women within the undergraduate population. It would, of course, be possible to carry out Imitation Games with participants who identified in other ways and/or to use multiple selection criteria to recruit from more specific populations. In addition, there is nothing to prevent data from a number of bilateral Imitation Games being combined if more complex comparisons were needed.

As reported elsewhere (Collins et al. 2015), the change in protocol did have a significant impact on the quantitative outcome of the Imitation Games, with both male and female Pretenders being less successful when the questions and Non-Pretender answers were generated by teams. Whilst this was anticipated, what we did not foresee was the impact that playing in teams had on the questions that individual and team Interrogators chose to ask.

With hindsight, we should not have been surprised that working in a group had an impact upon the data produced. Research on deliberative methods has noted the inhibiting potential of public discussions (Callon and Rabeharisoa 2004) and focus group research has long recognised the 'norming' effects of groups (Kitzinger 1995; Smithson 2000; Bloor et al. 2001). Nevertheless, even if the effect had been anticipated, the question would still remain: does playing in teams make the group appear more homogeneous and, if so, what kinds of experience does this reduced representation cohere around?

Theorising Groups

Without the idea of a social group there can be no sociology. But what a social group is, and how different degrees of 'groupishness' can be understood remain open questions. The dilemma is clearly articulated by Brubaker (2004), who coins the term 'groupism' to

characterise the assumption that discrete, homogeneous and sharply bounded social groups provide the necessary basis for any sociological explanation and to highlight the damage that can be done when ethnic or other categories are uncritically given such status. Whilst clearly not proscribing the use of social groups as explanatory resources Brubaker does argue that researchers need to remain vigilant and pay particular attention to the ways in which the membership and qualities of social groups are constructed and used to achieve particular goals.

Achieving this balance between recognising the heterogeneity and change that can occur within a society and the role played by shared histories and meanings that allow different groups within that society to be recognised by its members is the challenge faced by social researchers. For those working in what might be thought of as a quasi-Durkheimian-tradition, the shared elements of a form of life (Wittgenstein 1953; Winch 1958) that give an action its meaning are central to understanding how social change is both enabled and constrained. Such an approach would reject the groupism that Brubaker rightly criticises but would, nonetheless, be willing to accept a major explanatory role for the ideas, practices and institutions that characterise a social collectivity. The iconic example here is natural language speaking, which can only be understood as a property of a social group (Collins and Evans 2015b).

Nowadays, however, this 'social realism' is often rejected and the primary goal of sociology is considered to be studying the networks of associations between human and non-human actors as they are performed and reproduced through their interactions. In these accounts, social groups cannot exists as an explanatory resource because they an outcome of the practices that create the categories through which they are described and not, therefore,

something that can be used by the analyst to explain that action (Latour 1983; Callon 1986). As Latour has described it, quoting sociologist GabrielleTarde, himself a critic of Durkheim, the choice is between sociology as a science that uses 'society to explain something else' or sociology as a science 'accounting for how society is held together' (Latour 2005: 13)

In the case of gender, the dilemma of heterogeneity vs homogeneity turns on the extent to which the categories men/women are seen to determine the experiences of those they classify. Neither of the extreme positions is viable as human action cannot be reduced to either group or individual causes and so we must find a way to navigate between the poles. The argument against homogeneity – against groupism as its proponents would perhaps express it – emphasises the relational and performative aspects of gender. This might include highlighting that biological bodies are not always obviously male or female and gender identities are more fluid and nuanced than the binary oppositions of man/woman (Fausto-Sterling 1992; Kessler 1998) thus showing that few, if any, of the assumptions about what men or women are 'really' like can be justified (Rich 1980; Jackson 1999). The argument in favour of gender providing at least some degree of common experiences would focus on those aspects of men and women's lives that are influenced by the practices of their culture, even if these expectations vary between cultures or over time (Friedan 1963; de Beauvoir 1972 [1949]). Examples of these that impact on the experience of women include gender pay gaps, expectations of child care and domestic labour, and their routine portrayal in subservient and/or sexualised roles (see e.g. Hennessy and Ingraham 1997). Similarly, intersectional features such as class or ethnicity – themselves social categories that can be invoked by analysts as well as actors – interact with gender to produce distinctive forms of discrimination and disadvantage that need to be understood at a collective as well as individual level (Collins 2000; hooks 2001).

To return to the Imitation Game, rather than reifying the categories of man and woman, we see its role as exploring the extent to which the categories 'man' and 'woman' have meaning for self-identified men and women. Interrogators, Non-Pretenders and Judges thus have the task of identifying what, if anything, members of a group have in common. If there is nothing, then we are entitled to ask if it is a group at all. If, on the other hand, there is evidence to show that group members do orientate around a set of common themes or experiences, then we have grounds for believing that the analytic construct used by the researcher to define the Game has some reality in the world of the actors. Moreover, by exploring the data in more detail we get an indication of the relationship between the individual and the group. Groups in which the expected range of behaviours is very narrow, and in which any deviation from these is seen as illegitimate, might be said to exert a stronger effect on their members and to be more 'groupish' than those in which experiences are very diverse and the tolerance of dissent is much higher. Another way of phrasing the hypothesis derived from Figure One is to say that, whilst the degree of agency granted to men and women to perform their gender in different ways means that neither is likely to be a very 'groupish' group, the shared experiences and expectations of modern society will be salient enough for them to be recognisable as groups.

Content analysis of Gender Imitation Game data

The questions produced in each Step 1 Game were coded using NVivo 10. The categories recorded information about the Judge(s) and the characteristics of the questions including substantive topic and question-type (Collins et al. 2015). Thematic analysis was inductive and generated a large number of categories (97) that were later grouped into 11 larger

themes such as ‘special occasions’ which includes questions about birthdays, Christmas, St Valentine’s day and so forth.[4]

Charts 1 and 2 illustrate the frequency with which the higher-level themes emerged in each set of Imitation Games. Chart 1 shows the distribution for the Games in which the Interrogator/Judge role was played by women; Chart 2 the data for the Games in which the Interrogator/Judge role was played by men. In each case, the percentage on the X-axis is calculated using the total number of question asked by that type of Judge. As can be seen, there are clear and obvious differences between the thematic codings for men and women and, within each gender, between the individual and group protocols. Compared to women Interrogator/Judges, men ask proportionately more questions about ‘leisure time, activities and sport’ and relatively fewer questions about ‘the body’ and ‘relationships’.

Chart 1: Thematic content analysis by game protocol: Female-Judged games about here

Chart 2: Thematic content analysis by game protocol: Male-Judged games about here

These differences are represented more clearly in Table 1, which shows the proportion of questions that were most prominent for each gender. The first two columns highlight the differences between the Games when divided by gender. This confirms that, as noted above, men playing the Interrogator/Judge role ask more questions about ‘Leisure time, activities and interests’ than women Interrogator/Judges. Men also ask a higher proportion of questions about ‘TV, films and media’, and more than twice the proportion of questions

about ‘sex and sexuality’. In contrast, women Interrogator/Judges are more than twice as likely to ask questions about ‘the body’ and about ‘relationships.’

These data reflect a range of themes identified in the gender studies literature. In the case of women, we can interpret the emphasis on ‘the body’ as reflecting the ways in which women are encouraged to interrogate and manage their own bodies in culturally specific ways to achieve self-esteem and social value in an internalisation of the ‘male gaze’ (Mulvey 1975; Tseëlon 1995). Likewise, the emphasis placed on questions about relationships by women can be seen as a reflection of the heteronormative society into which the women participants would have been socialised from an early age (Berlant and Warner 1998; Cancian 1986). In contrast, hegemonic ideals of masculinity (Connell 1995; Connell and Messerschmidt 2005) mean that men are not socially motivated to undertake this work and are instead encouraged to perform their identity through the achievement of tangible goals, such as career performance, sex or fitness. The emphasis on sexual activity is particularly striking in this regard as it may reflect the conventional view that sexual activity is an endorsement of a man’s virility but a source of reputational risk for women (Tolman 2002).

The difference in dispersion of questions about leisure activities may also be interpreted as indicative of the way women’s leisure time is often co-opted by other forms of work, with the result that women participate in fewer activities that are primarily focused on personal enjoyment. This is particularly relevant given the disparity in questions regarding the body: women are often encouraged to locate body and appearance maintenance as ‘leisure’, with time (and money) spent on beautification and shopping for items such as make-up and clothes promoted as enjoyable for women (Wolf 1990). The enforced secrecy of common aspects of women’s bodies, such as menstruation (Bobel 2010), and the glossing of

modification processes to meet heteronormative ideals, such as bodily hair removal (Chapkis 1986; Toerien and Wilkinson 2003) also make such questions apt for distinguishing men from women, as accurate portrayals of these experiences are absent from cross-gender popular culture (Chrisler 2011).

Table 1: Thematic content distribution by Judge gender and game protocol about here

The last four columns in Table 1 highlight the effect of the two different protocols (group-play and individual-play). Some themes – e.g. 'leisure time, activities and interests' – do not appear to be particularly sensitive to the protocol. Other topics, such as 'sex and sexuality', show far greater variability with individual women asking more than three times the proportion of questions about sex and sexuality than women playing as teams. Whilst it is possible that this is purely due to the difficulty of disclosing such information in a group setting, it is worth noting that the wider range of issues raised in the individual format is consistent with recent research documenting the emergence of more positive and agentic sex roles for women, at least amongst university students (e.g. Kalish and Kimmel 2011). Similar differences between group and individual players can be seen in three other themes. 'The body' is more popular with groups than individuals for female players, but more popular for individuals than groups in male games, again suggesting that the individual games allow for more novel and/or emergent behaviours to be revealed. In this case, the difference between individual and group formats suggests that the increasing objectification of the male body in the media (Bordo 2015) is influencing the perspectives of at least some men but that hegemonic norms militate against expressing these concerns in the group format (Connell 2000). The same is true of 'relationships'. 'TV, films and media' are

employed as a topic twice as frequently by female group players than by individual female players, but the distribution is more stable between male players in either protocol.

Sex and Sexuality

This difference between the individual and group Games is illustrated with particular clarity in the questions coded as relating to sex and sexuality. Although these appeared in only 15% of all questions asked, the wide differences between genders and between protocols makes them particularly useful in this context. Charts 3 and 4 show the frequency of the subthemes contained within the over-arching category of 'sex and sexuality'.

Chart 3: Female-Judged Imitation Games: Disaggregation of 'Sex and Sexuality' about here

Chart 4: Male- Judged Imitation Games: Disaggregation of 'Sex and Sexuality' about here

The most striking result is that for almost all the sub-categories there are proportionately more questions asked by both men and women when Step 1 is played using the individual rather than group protocol. The difference is particularly marked in female Games with 'sex', 'masturbation', 'sex positions', 'one night stands', 'homosexuality', 'anal sex' and 'sex toys' all entirely absent from games played using the group protocol. Of the five questions in this thematic category asked by groups of women, all address relatively 'safe' topics: three asked about contraception, one asked 'What was your first time like/what would you want or expect it to be like?', and the last asked 'Which five actors do you find the most attractive and why?'. In a similar, though less dramatic, way male groups also occupied a more

restricted terrain, with ‘contraception’, ‘losing virginity’ and ‘homosexuality’ all addressed by individuals but absent from questions set by teams.

We think the most likely explanation for these differences between individual and group Games is that these are topics that are paradoxically very important to young people but also very difficult for them to discuss with peers who are not their close friends. In individual Games, both men and women felt able to ask questions that were more personal, detailed or private and, in so doing, were able to reveal something of the range of practices they engaged in as men and women; the fact that this includes what might be thought of as a degree of sexual experimentation is not particularly surprising given the age of participants recruited (Becker 1964; Kalish and Kimmel 2011). On the other hand, precisely because these questions challenge some traditional but highly gendered assumptions about sexual activity, participants would be understandably cautious about raising them in front of relative strangers.

In this context, focussing on widely available cultural discourses, as the groups tended to do, provides a ready way to identify areas of agreement and avoid awkward situations in which personal knowledge has to be revealed or debated. As a result, group Games revealed the normative expectations of men and women about what could be shared and expected of each other rather than the individual ways in which they may, or may not, have deviated from these. This is not to say that these discourses did not include questions about problems or embarrassments that men and women encounter but that they did so from the perspective of shared common ground in which individual experiences that differed significantly from this expectation were often erased.

Formulating 'Discriminating' Questions

As noted above, questions were coded for both thematic content and the type of information they asked for. The primary types are:

1. *Personal questions:* These refer to participants' preferences or opinions, seek biographical narratives, or ask for responses to hypothetical situations.
2. *Knowledge questions:* These either ask respondents what they know about a subject or require them to possess specialised knowledge to understand the terms used.
3. *Mixed questions:* These combine elements of personal and knowledge questions by, for example, asking about a preferred brand of make-up and how much it costs.

Chart 5 summarises the distribution of question types within the whole dataset and shows that, for each type of Judge, personal questions are the most popular, followed by mixed questions, with knowledge questions the least prevalent.[5]

Chart 5: Distribution of question types within group and individual Imitation Games about here

It is also clear from Chart 5, that there is a significant difference between the protocols: in both sets of group Games Interrogator/Judges are more likely to ask 'knowledge' questions and less likely to ask 'personal' questions when compared to individual Interrogator/Judges of the same gender. If we consider this in relation to the topics identified in Charts 1 and 2, we can see how question type and question topic might be inter-related. Chart 6 illustrates the frequency with which the most common subthemes from across all Games were framed as questions that should be answered using factual knowledge terms, personal experience or some combination of both knowledge and experience.

Chart 6: Question types in relation to questions themes about here

As can be seen, some topics lend themselves quite readily to questions framed in personal terms. For example, questions coded as 'free time, relaxation' and 'leisure time, activities and interests' are exclusively classified as 'personal'. One consequence of playing in a team might be that, as they discuss the question, the team comes to realise that it has several different answers, at least some of which will be known to members of the other social group, and so they reject these questions. For example, the discovery that the hobbies and leisure activities enjoyed by those within the team of Interrogators/Judges are diverse might lead these teams to decide that questions about these might not be very discriminating. In contrast, questions with a more definite right or wrong answer may seem more likely to discriminate between Pretenders and Non-Pretenders and so be chosen on that basis. Even if this is the case, however, it remains the case that, whatever the questions created by Interrogator/Judges, these represent something that all members of the team were prepared to agree constituted something that all members of their social group could reasonably be expected to know.

Social Groups and the Imitation Game

What then, does the Imitation Game, and in particular the difference between individual and group protocols, tell us about the nature of groups? Although our data is drawn from a limited population – undergraduate students at a UK university – the principles we now articulate seem quite general. In the case of Imitation Games played by individuals, it is relatively straightforward: assuming all Non-Pretenders follow the instructions and 'answer naturally' then their responses represent the diversity of experiences within the sample and, if the sample is representative, the population from which it is drawn. This, in turn, means

that the Imitation Game reveals something of the heterogeneity within the group and, based on the Judges' responses to these responses, the tolerance for diversity within the group. Where either or both of these are extremely high, we might be led to ask if a group that has nothing in common and/or imposes no constraints on what one is able to do is really a group at all. This would apply whether or not the group was a solidaristic or self-conscious group, as makes clear the example of language.

In contrast, the content of group Games reveals something rather different. The narrower range of questions asked, as well as the difference between the individual narratives and the final answer, make it clear that group data are not the straightforward summation or summary of individual experience. Instead they are composite creations in which participants are asked to draw on their own experiences but also to find some common ground that links them together. The implication is that Imitation Games played with groups emphasise what is (able to be) shared within groups and hence what gives them their character as groups; the more clearly this can be articulated and recognised, the more 'groupish' the group appears.

Finally, comparing the individual and group data reveals the negative side of groupishness: what is silenced by the need – perceived or real – to conform to the expectations of the group. Here we might even speculate that, because Non-Pretenders in group Games are asked to share their own experiences or views and then come up with a singular answer which best represents these different possibilities, the answers produced are highly likely to be 'normative' to that social group. Although we do not discuss it in detail here, the 'streamlining' of answers by teams of Non-Pretenders provides fascinating data about what teams, as members of a social group, identify as best 'fitting' with the overall experiences or

expectations of that group and what *they* expect that the rest of the group do, think or believe. In other words, rather than seeing the differences between individual and group data in terms of one being more 'true' than the other, we see them as revealing different kinds of 'truth'; one individual, one collective. Given the concerns with which we started, this collective representation of gender is particularly important as these are the shared experiences and expectations against which individual performances are judged. We would also argue that the clear effect of the group protocol on both the pass rate and the content of the Imitation Games suggests that, despite the ongoing debate about their meaning and use, the traditional categories of man and woman remain salient for both sociologists and citizens.

Conclusion

Many qualitative researchers would argue that subjective, narrative and personal accounts provide the most interesting data about embodied, multiple and fluid topics such as gender. From this perspective, acts of categorisation become problematic as they imply a reductionism in which ontologies are stable rather than in flux. The difficulty with this view, however, is that it risks overstating the fluidity of categories and fails to account for the extent to which the intimate relation between ideas and actions means that categories give a sense of stability and meaning to the world and to the self.

The Imitation Game starts from the latter position and assumes that the categories used during recruitment are sufficiently socially meaningful and stable that participants are able to self-identify as belonging to one or the other (or neither and thus decline to take part). Whilst change is clearly always possible, the data provided by the group Imitation Games offers insights into those aspects of experience which are culturally stable and/or shared

enough to exert an influence on what members of a social group either tend to do or think that they should do. In other words, what Imitation Game data, particularly that generated by groups, makes explicit is participants' knowledge about shared behaviours, norms and values. Of course, participants are not asked about their own group in isolation, but their own group in contrast to the other group. As such, the results tell us not just about the uniformity and difference that can be found within each group but what each assumes to be shared or not with the other group. In other words, we learn about *difference* as much as we learn about *collectivities*.

These findings matter for two reasons. First, if the social ontologies created through linguistic and social practices do change over time, then Imitation Games provide a way of capturing these meanings and uses at different points in time. One only has to imagine how Imitation Games on gender played over the past 40 or 50 years would have changed to see how the method might now be used to track the diffusion of contemporary changes in attitudes towards gender and sexuality. Moreover, because the method requires so little in the way of standardisation or researcher intervention the data would be readily comparable despite the scale of social and cultural change they would undoubtedly reflect. Secondly, and more importantly given the aim of this paper, the Imitation Game also shows why the idea of a social group remains relevant for social science. Not only does the Imitation Game start from the idea that categorisation is possible, the Game reveals what being a member of one of these groups entails. In this way, the Imitation Game provides a method by which sociologists can enable participants to articulate their experiences and, in so doing, makes the social group visible as an object of systematic and comparative inquiry.

Notes

[1] The research reported in this paper, including the development of the specialist software, was funded by a European Research Council Advanced Grant awarded to Collins (269463 IMGAME) and a European Research Council Proof of Concept Grant (297467 IMCOM). Evans is the lead author for this paper and contributed to all aspects of its production. The other authors contributed as follows: Collins – research design and conceptualisation; Weinel, Lyttleton-Smith and O'Mahoney – research design, data collection, data analysis, initial writing up; Leonard-Clarke – data analysis. All authors commented on and made contributions to the final text. We thank the referees for their constructive criticisms on an earlier version of this paper. The current version is greatly improved as a result. Any errors that remain are the responsibility of the lead author.

[2] The software was written by Martin Hall.

[3] The pass rate is the way we quantify the success of Pretenders. It is defined as follows, with the number express as a percentage:

$$1 - \left(\frac{Number\ of\ right\ guesses - Number\ of\ wrong\ guesses}{Total\ number\ of\ guesses\ including\ Don't\ Knows}\right)$$

[4] Thematic coding was conducted twice using the same code list, with the two coders achieving approximately 87% agreement over nearly 800 coded extracts.

[5] The sample size – i.e. total number of questions coded -- for each row is: Male individual (185); male group (121); female individual (202); female group (128)

References cited

Barnes, B. et al. 1996. *Scientific knowledge: a sociological analysis*. Chicago: University of Chicago Press.

Becker, H.S. 1964. What do they really learn at college? *Society* 1(4), pp. 14–17. doi: 10.1007/BF03182273.

Berlant, L. and Warner, M., 1998. Sex in public. *Critical inquiry*, 24(2), pp.547-566.

Bernard, J. 1975. Research on Sex Differences: An Overview of the Art. In: Bernard, J. ed. *Women, Wives, Mothers: Values and Options*. Chicago, IL: Aldine Publishing Company, pp. 7–29.

Brubaker, R. 2004 *Ethnicity without groups*, Cambridge, Mass: Harvard University Press.

Bloor, D. 1991. *Knowledge and social imagery*. 2nd ed. Chicago: University of Chicago Press.

Bloor, D. 1999. Anti-Latour. *Studies in History and Philosophy of Science Part A* 30(1), pp. 81–112. doi: 10.1016/S0039-3681(98)00038-7.

Bloor, M. et al. 2001. *Focus groups in social research*. London ; Thousand Oaks, Calif: SAGE Publications.

Bobel, C. 2010. **New Blood: Third-wave Feminism and the Politics of Menstruation**. New Brunswick, NJ: Princeton University Press

Bordo, S. 2015. *The male body: a new look at men in public and in private*. Nachdr. New York: Farrar, Straus and Giroux.

Butler, J. 2006. *Gender trouble: feminism and the subversion of identity*. New York: Routledge.

Callon, M. 1986 'Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay.' in Law, John (ed) *Power, action and belief: a new sociology of knowledge?*, London: Routledge.

Callon, M. and Rabeharisoa, V. 2004. Gino's lesson on humanity: genetics, mutual entanglements and the sociologist's role. *Economy and Society* 33(1), pp. 1–27. doi: 10.1080/0308514042000176711.

Cancian, F.M. 1986. The Feminization of Love. *Signs* 11(4), pp. 692–709.

Chapkis, W. 1986. *Beauty secrets: Women and the politics of appearance*. Boston: South End Press.

Chrisler, J.C. 2011. Leaks, lumps, and lines: Stigma and women's bodies. *Psychology of Women Quarterly* 35(2), pp.202-214.

Collins, H.M. 1992. *Changing order: replication and induction in scientific practice*. Chicago: University of Chicago Press.

Collins, H.M. 2004. Interactional expertise as a third kind of knowledge. *Phenomenology and the Cognitive Sciences* 3(2), pp. 125–143. doi: 10.1023/B:PHEN.0000040824.89221.1a.

Collins, H.M. 2011. Language and practice. *Social Studies of Science* 41(2), pp. 271–300. doi: 10.1177/0306312711399665.

Collins, H.M. 2013. Three dimensions of expertise. *Phenomenology and the Cognitive Sciences* 12(2), pp. 253–273. doi: 10.1007/s11097-011-9203-5.

Collins, H.M. 2016. An Imitation Game concerning gravitational wave physics. *arXiv:1607.07373 [physics]* . Available at: http://arxiv.org/abs/1607.07373 [Accessed: 28 July 2016].

Collins, H.M. and Evans, R. 2002. The Third Wave of science studies: Studies of expertise and experience. *Social Studies of Science* 32(2), pp. 235–296. doi: 10.1177/0306312702032002003.

Collins, H.M. and Evans, R. 2007. *Rethinking expertise*. Chicago: University of Chicago Press.

Collins, H.M. and Evans, R. 2014. Quantifying the tacit: The Imitation Game and social fluency. *Sociology* 48(1), pp. 3–19. doi: 10.1177/0038038512455735.

Collins, H.M. and Evans, R. 2015a. Expertise revisited, Part I—Interactional expertise. *Studies in History and Philosophy of Science Part A* 54, pp. 113–123. doi: 10.1016/j.shpsa.2015.07.004.

Collins, H.M. and Evans, R. 2015b. Probes, surveys, and the ontology of the social. *Journal of Mixed Methods Research* . Available at: http://mmr.sagepub.com/cgi/doi/10.1177/1558689815619825 [Accessed: 4 April 2016].

Collins, H.M. et al. 2006. Experiments with interactional expertise. *Studies in History and Philosophy of Science Part A* 37(4), pp. 656–674. doi: 10.1016/j.shpsa.2006.09.005.

Collins, H.M. et al. 2015. The Imitation Game and the Nature of Mixed Methods. *Journal of Mixed Methods Research* , p. 1558689815619824. doi: 10.1177/1558689815619824.

Collins, P.H. 2000. *Black feminist thought: knowledge, consciousness, and the politics of empowerment*. Rev. 10th anniversary ed. New York: Routledge.

Connell, R.W. 1995. *Masculinities*. Berkeley: University of California Press.

Connell, R.W. 2000. *The men and the boys*. Berkeley: University of California Press.

Connell, R.W. and Messerschmidt, J.W. 2005. Hegemonic Masculinity: Rethinking the Concept. *Gender & Society* 19(6), pp. 829–859. doi: 10.1177/0891243205278639.

de Beauvoir, S. 1972. *The Second Sex*. Harmondsworth, UK: Penguin.

Douglas, J.D. 1967. *Social meanings of suicide.* Princeton, N.J: Princeton University Pres. Available at: http://press.princeton.edu/titles/451.html.

Evans, R. 2008. The Sociology of Expertise: The Distribution of Social Fluency. *Sociology Compass* 2(1), pp. 281–298. doi: 10.1111/j.1751-9020.2007.00062.x.

Evans, R. 2011. Collective epistemology: The intersection of group membership and expertise. In: Schmid, H. B. et al. eds. *Collective epistemology*. Frankfurt: Ontos Verlag, pp. 177–202. Available at: http://site.ebrary.com/id/10728715 [Accessed: 11 February 2015].

Evans, R. and Collins, H.M. 2010. Interactional expertise and the Imitation Game. In: Gorman, M. E. ed. *Trading zones and interactional expertise creating new kinds of collaboration*. Cambridge, Mass. [u.a.]: MIT Press, pp. 53–70.

Evans, R. and Crocker, H. 2013. The Imitation Game as a method for exploring knowledge(s) of chronic illness. *Methodological Innovations Online* 8(1), pp. 34–52. doi: 10.4256/mio.2013.003.

Fausto-Sterling, A. 1992. *Myths of gender: biological theories about women and men*. 2nd ed. New York, NY: Basic Books.

Fitzgerald, R. et al. 2009. Omnirelevance and interactional context. *Australian Journal of Communication* 36(3), p. 45.

Friedan, B. 1963. *The Feminine Mystique*. New York, N.Y.: Norton.

Giles, J. 2006. Sociologist fools physics judges. *Nature* 442(7098), pp. 8–8. doi: 10.1038/442008a.

Grant, L. et al. 1987. Is There an Association between Gender and Methods in Sociological Research? *American Sociological Review* 52(6), pp. 856–862. doi: 10.2307/2095839.

Hennessy, R. and Ingraham, C. eds. 1997. *Materialist feminism: a reader in class, difference, and women's lives*. New York: Routledge.

hooks, b. 2001. *Ain't I a woman: black women and feminism*. Nachdr. London: Pluto Press.

Jackson, S. 1999. *Heterosexuality in Question*. London: Sage Publications.

Kalish, R. and Kimmel, M. 2011. Hooking Up: Hot Hetero Sex or the New Numb Normative? *Australian Feminist Studies* 26(67), pp. 137–151. doi: 10.1080/08164649.2011.546333.

Kessler, S.J. 1998. *Lessons from the intersexed*. New Brunswick, N.J: Rutgers University Press.

Kitzinger, J. 1995. Qualitative Research: Introducing focus groups. *BMJ* 311(7000), pp. 299–302. doi: 10.1136/bmj.311.7000.299.

Latour, B. 1983 'Give me a laboratory and I will move the world' in K. Knorr-Cetina and M. Mulkay (eds) *Science Observed*, London: SAGE.

Latour, B. 2005. *Reassembling the social: an introduction to actor-network-theory*. Oxford ; New York: Oxford University Press.

Morgan, D.L. and Kreuger, R.A. 1993. When to use Focus Groups and Why. In: Morgan, D. L. ed. *Successful Focus Groups: Advancing the State of the Art*. London: Sage Publications, pp. 3–19.

Mulvey, L. 1975. Visual Pleasure and Narrative Cinema. *Screen* 16(3), pp. 6–18. doi: 10.1093/screen/16.3.6.

Oakley, A. 2015. *Sex, gender and society*. Burlington: Ashgate Publishing.

Rich, A. 1980. Compulsory Hetersexuality and Lesbian Existence. *Signs* 5(4), pp. 631–660.

Smithson, J. 2000. Using and analysing focus groups: Limitations and possibilities. *International Journal of Social Research Methodology* 3(2), pp. 103–119. doi: 10.1080/136455700405172.

Sprague, J. and Zimmerman, M.K. 1993. Overcoming dualisms: A feminist agenda for sociological methodology. *Theory on gender/feminism on theory* , pp. 255–280.

Tolman, D.L. 2002. *Dilemmas of desire: teenage girls talk about sexuality*. Cambridge, MA: Harvard University Press.

Toerien, M. and Wilkinson, S. 2003. Gender and body hair: Constructing the feminine woman. *Women's Studies International Forum* 26 (4), pp. 333-344.

Tseëlon, E. 1995. *The masque of femininity: the presentation of woman in everyday life*. London ; Thousand Oaks, Calif: Sage Publications.

Turing, A. 1950. Computing Machinery and Intelligence. *Mind* 59(236), pp. 433–460. doi: 10.1093/mind/LIX.236.433.

Warner, M. 1993. *Fear of a queer planet: queer politics and social theory*. Minneapolis: University of Minnesota Press.

Wehrens, R. 2014. The potential of the Imitation Game method in exploring healthcare professionals' understanding of the lived experiences and practical challenges of chronically ill patients. *Health Care Analysis* 23(3), pp. 253–271. doi: 10.1007/s10728-014-0273-8.

Wolf, N. 1990. *The beauty myth: How images of beauty are used against women*. London: Vintage

Figure 1

Figure 1

		Target Expertise is	
		Homogeneous	*Heterogeneous*
Target Group is	*Open*	Pretenders typically succeed as right answers clearly defined and easy to learn	Pretenders typically succeed as many possible right answers exist any of which can be easily learnt
	Closed	Pretenders typically fail as right answers clearly defined but difficult to learn	Pretenders may have some success as the variety of possible answers increases the chance of guessing correctly

Table 1

Table 1

High level theme and overall occurrence (% of all questions (n.636))	*Distribution by gender*		*Distribution by gender and Judge type*			
	Female	*Male*	*Female Individual*	*Female Group*	*Male Individual*	*Male Group*
Leisure time, activities & interests (31%)	44%	56%	20%	24%	23%	33%
The body (19%)	68%	32%	31%	37%	19%	13%
Relationships (17%)	61%	39%	23%	38%	21%	18%
Sex and sexuality (15%)	31%	70%	24%	7%	40%	30%
TV, films and media (13%)	42%	58%	14%	28%	30%	28%

Chart 1

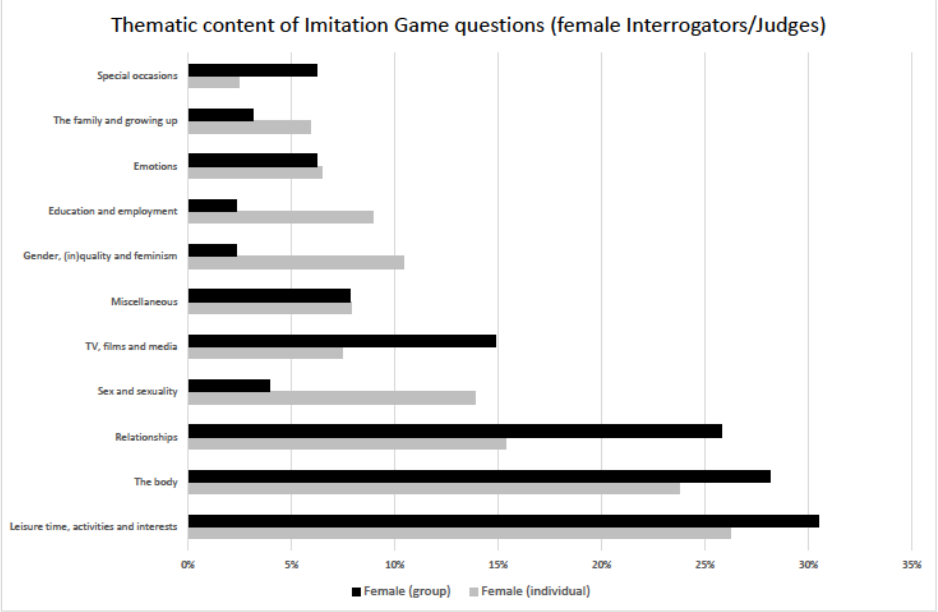

Thematic content of Imitation Game questions (female Interrogators/Judges)
Special occasions
The family and growing up
Emotions
Education and employment
Gender, (in)quality and feminism
Miscellaneous
TV, films and media
Sex and sexuality
Relationships
The body
Leisure time, activities and interests
0%
5%
10%
15%
20%
25%
30%
35%
Female (group)
Female (individual)

Chart 2

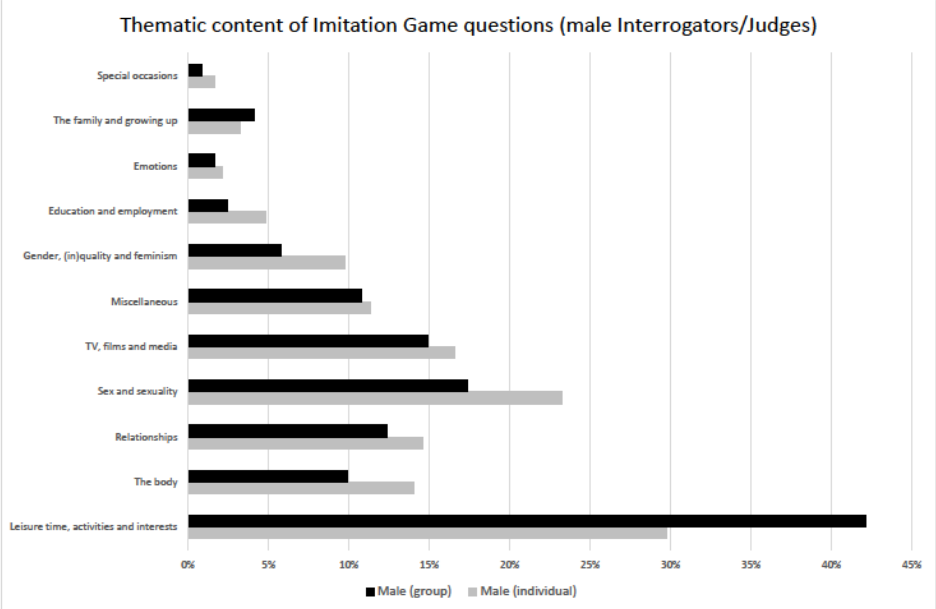

Thematic content of Imitation Game questions (male Interrogators/Judges)
Special occasions
The family and growing up
Emotions
Education and employment
Gender, (in)quality and feminism
Miscellaneous
TV, films and media
Sex and sexuality
Relationships
The body
Leisure time, activities and interests
0%
5%
10%
15%
20%
25%
30%
35%
40%
45%
Male (group)
Male (individual)

Chart 3

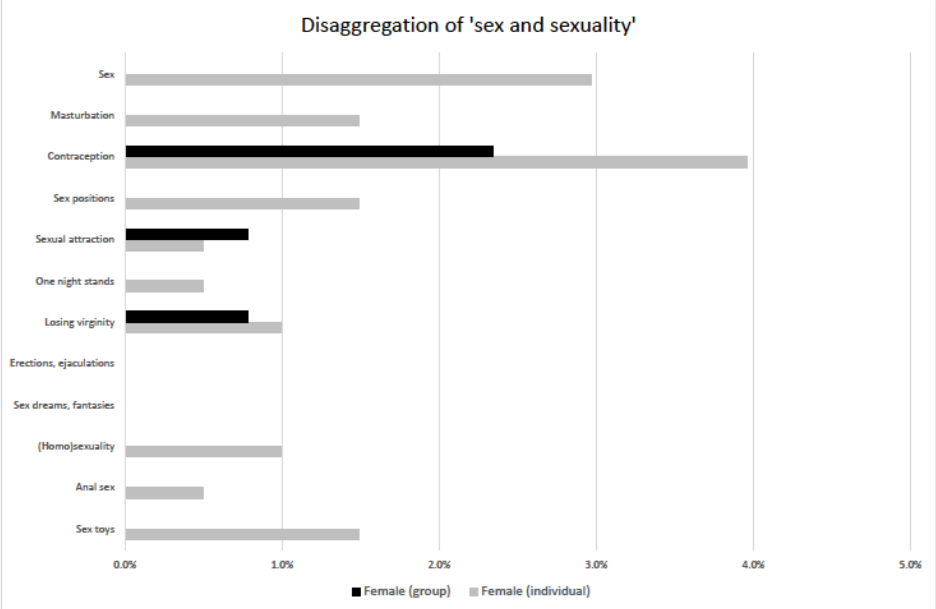

Disaggregation of 'sex and sexuality'
Sex
Masturbation
Contraception
Sex positions
Sexual attraction
One night stands
Losing virginity
Erections, ejaculations
Sex dreams, fantasies
(Homo)sexuality
Anal sex
Sex toys
0.0%
1.0%
2.0%
3.0%
4.0%
5.0%
Female (group)
Female (individual)

Chart 4

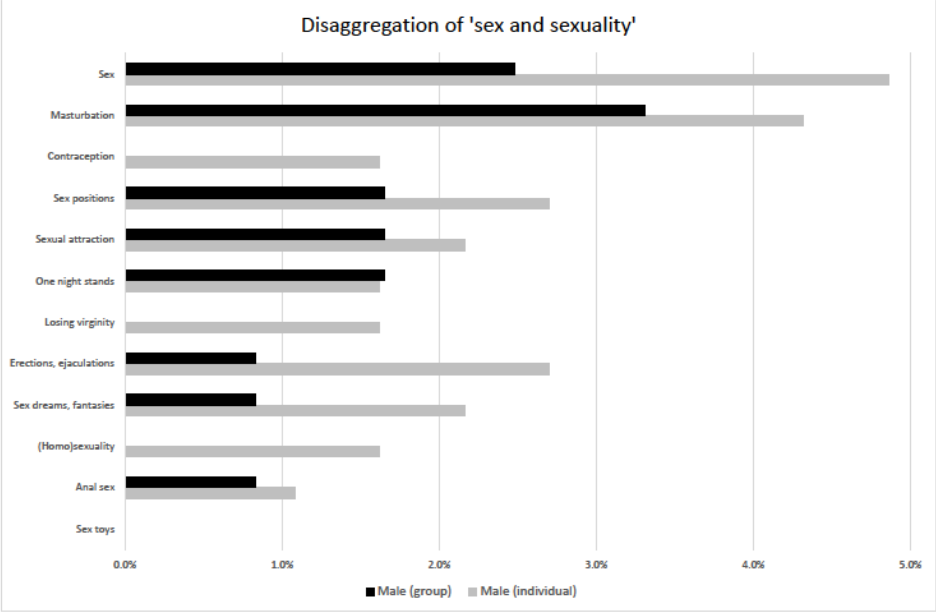

Disaggregation of 'sex and sexuality'
Sex
Masturbation
Contraception
Sex positions
Sexual attraction
One night stands
Losing virginity
Erections, ejaculations
Sex dreams, fantasies
(Homo)sexuality
Anal sex
Sex toys
0.0%
1.0%
2.0%
3.0%
4.0%
5.0%
Male (group)
Male (individual)

Chart 5

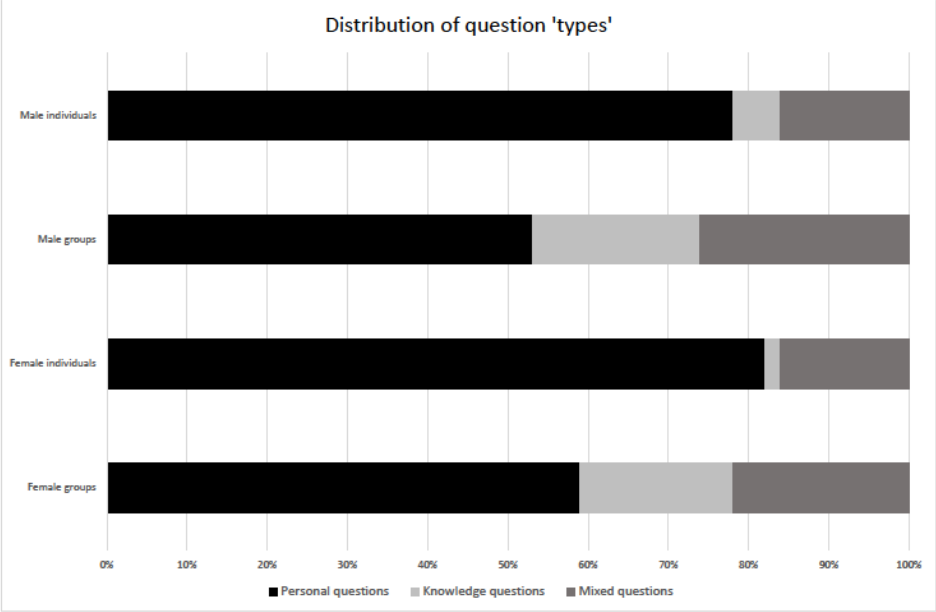
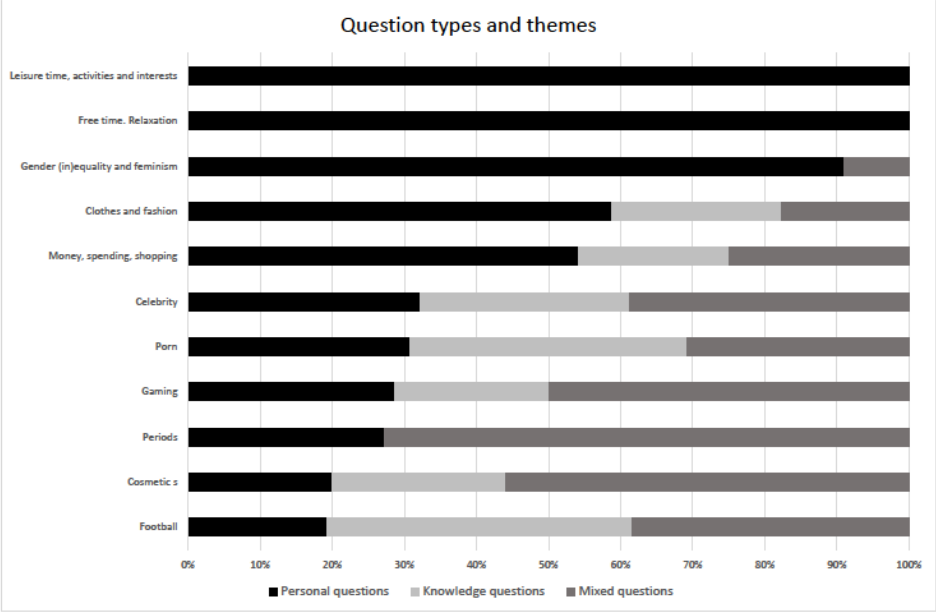

Distribution of question 'types'
Male individuals
Male groups
Female individuals
Female groups
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Personal questions
Knowledge questions
Mixed questions

Chart 6


Question types and themes
Leisure time, activities and interests
Free time. Relaxation
Gender (in)equality and feminism
Clothes and fashion
Money, spending, shopping
Celebrity
Porn
Gaming
Periods
Cosmetic s
Football
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Personal questions
Knowledge questions
Mixed questions