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Research in brief

Ulrike Klinger* and Uta Russmann The sociodemographics of political public deliberation: Measuring deliberative quality in different user groups

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Abstract: Governments and local administrations increasingly use the internet to improve citizens' participation in deliberation processes. However, research studies have pointed out that deliberation outcomes vary due to the participants' sociodemographic differences. In this paper, we address this debate by quantitatively measuring different sociodemographic participant groups' deliberation quality. By building an index of the quality of understanding (IQU), we analyze the quality of 1,991 postings on local political issues that participants contributed during the 2011 Zurich City debate. We defined five indicators for deliberation quality: statement of reasons, proposals for solutions, respect, doubts, and reciprocity. The analysis confirms that the sociodemographic composition of the participants is of great importance for self-selected participation and deliberation quality, but not for the deliberation quality.

Keywords: deliberation, political online communication, quantitative content analysis

1 Introduction

The core idea of deliberation is that citizens are equally entitled and enabled to participate in a public debate on issues of public concern to allow the formation of a plurality of public opinion. As an essential element of the democratic

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process, for example, in local politics, deliberation requires a thoughtful examination and the pooling of relevant issues "to process such contributions discursively by means of proper arguments for and against" (Habermas 2006, p. 416). Only then can the participants develop their opinions, take an equal part in a discussion, and make a public judgment about common preferences (Habermas 1984).

Online discussion forums make public debate "a real possibility" (Wright and Street 2007, p. 851), and bring many citizens together to deliberate issues (Rojas and Puig-i-Abril 2009, p. 916, 919). Gastil and Dillard (1999, p. 3) have shown that participants benefit from deliberation processes, because they "increased participants' schematic integration and differentiation and reduced their attitudinal uncertainty". Against this background, it is not surprising that administrations use the internet to increase citizen participation in the political process.

However, there are also 'dark' sides of online deliberation, which, for example, Dahlgren (2005, p. 156) points out: "(R)esearch has shown that online discussions do not always follow the high ideals set for deliberative democracy. Speech is not always so rational, tolerance toward those who hold opposing views is at times wanting, and the forms of interaction are not always so civil." Other critics of deliberation focus on sociodemographic problems, arguing that deliberation faces the dilemma that it excludes various groups. This assumption is linked to findings that digital divides do not only appear along national development stages, but also along societal cleavages: "When the internet matures, it will increasingly reflect known social, economic and cultural relationships of the offline world, including inequalities" (Van Deursen and van Dijk 2014, p. 507). Sociodemographic factors, such as gender, age, and education, do not only influence participation in online discussions (De Marco, Robles, and Antino 2014; Rojas and Puig-i-Abril 2009, p. 913), but also the participants' understanding of a debate.

Our study seeks to contribute to current research on online deliberation and, in particular, to the debate on how deliberation outcomes vary due to the participants' sociodemographic differences. In this regard, we follow Wright's (2012) intervention to overcome the "revolution/normalization frame" in deliberation research and instead aim to clarify whether the digital divide in selfselected participation is also reflected in the quality of the participants' contributions. So far, there is little empirical evidence of how the participants' sociodemographic composition influences the quality of online participation and deliberation processes. This study therefore focuses on the following research question: Does the quality of deliberation vary in respect of the participants' gender, age, and education? The literature review in the next section provides an overview of theoretical assumptions about sociodemographic constraints of deliberation. The research question is empirically addressed by means of a content analysis of 1,991 postings on local political issues during the 2011 Zurich City Debate (Switzerland). We measure the quality of different sociodemographic participant groups' online deliberations along the index of a quality of understanding. This index serves as a quantitative measure of public discourse's quality of understanding. The paper concludes with a brief discussion of the principal findings.

2 Literature review

While deliberation is predominantly seen as democracy-enhancing, some scholars also suggest a critical perspective (Dryzek 2002, Chapter 3; Sanders 1997; Young 1996). Besides all the obvious beneficial aspects of deliberation and its promise of legitimate political solutions, Sanders (1997, p. 347) suggests being more "suspicious of the near consensus among democratic theorists on its behalf". Most prominently, "difference theorists" have challenged the notion that deliberation is a tonic for representative democracies in crisis. In a nutshell, their argument aims at the normative prerequisite of participants' equality in a rational deliberation discourse in a real world of difference and inequality, thus underlining the exclusive and repressive potential of deliberation. According to this reading, meaningful participation in deliberation is stratified, just as societies are stratified and characterized by power structures that make the idea of the 'non-coercive coercion of the better argument' (Habermas) among the discussants, who respect each other as equals, unlikely.

Diversity of the participants is an essential aspect of deliberation, because a broad variety of the interests and preferences within a population of stakeholders should be represented in a group that discusses solutions and deliberates on the best policy outcomes (Hickerson and Gastil 2008, p. 283). Because individuals participating in deliberation processes are not homogenous, 'empty' shells, their predispositions, ideologies, deliberative experiences, and perceptions influence the deliberation process, particularly in small-group deliberation (Gastil, Black, and Moscovitz 2008). Hardy, Scheufele, and Wang (2005) argue that not only individual predispositions, but also individual network heterogeneity, media use, and the strength of opinion affect participants' "willingness to speak out in a public forum, willingness to express a conflicting view (...) and willingness to listen to a conflicting viewpoint" (p. 1).

The theoretical claims made by difference theorists are reflected in studies on online behavior. Because more men are more regularly online than women,

they can more often participate in online deliberation. The idea that deliberation might privilege men over women is further based on the existence of structural inequalities in daily life, and men's and women's different communication styles, which various studies have verified (Cook, Delli Carpini, and Jacobs 2007; Hickerson and Gastil 2008, p. 286; Suzuki 2006). With regard to age, studies show that older people pursue a narrower scope of goals and activities online (Wei 2012, p. 312), process information differently, and their individual deliberative decision-making also works differently (Peters, Hess, Västfjall, and Auman 2007). Older adults are more biased, process less information more slowly, and focus more on emotional content during decision making (Peters et al. 2007, p. 17). They also use the internet to preserve social relationships rather than to extend their networks (Martinez-Pecino, Delerue Matos, and Silva 2013). Knight and Johnson (1997) argue that deliberation also presupposes the equality of resources and equal capacity to make persuasive claims (p. 281). Accordingly, autonomous preferences, the command of cultural resources, and cognitive capacities are central if participants are to influence and persuade the other participants to support their preferred outcomes (p. 299). These aspects are closely linked to the level of formal education. Not only does a high formal education more often than not lead to higher levels of material wealth and income, a longer and higher education also stimulates the ability to articulate ideas and reason persuasively. Educational attainment also seems highly relevant for operational and strategic internet skills (van Deursen and van Dijk 2010). From this literature, one could conclude that discussion quality is influenced by gender, age and education.

However, to date, only a few studies have taken on the challenge of empirically testing the critical claims regarding sociodemographic factors in deliberation processes. Hickerson and Gastil (2008) scrutinize the claim that women are disadvantaged in deliberation processes by analyzing the experiences of citizens' juries, and find no evidence for this claim (p. 298). Cook et al. (2007) approached a similar question (Who deliberates?) empirically by quantitative measures from a national telephone survey. They also find no gender gap, but that education has a positive impact, and age has a negative impact on discursive participation, that is, young adults are more likely to participate in online deliberation. Caluwaerts (2013) offers another empirical test of the gender difference critique by using an experimental design comprising nine "mini-publics" with ten participants each. He argues that gender differences do influence the quantity of participation in the deliberation process (women speak less than men), but not the quality of their contributions. In contrast, he finds no gender gap (p. 15). This is a very fresh, empirically grounded argument, and our data from the Zurich City debate allow us to test these results quantitatively on a much larger participant basis. From the above, we derive the following hypothesis for our analysis: Even when participation in online discussions is stratified, the quality of deliberation is not stratified: Once participants have joined a discussion, the gender, age, and education gaps disappear.

3 Data

During a three-day period between September 15 and 17, 2011, the City of Zurich opened an online forum in which citizens and experts could discuss the political aspects of sustainable city development. The participants had to register their name, home and e-mail addresses, and sociodemographic information. A total of 1,246 participants (unique logins; 3,682 visits) contributed 1,996 postings to the debate. Five unintelligible postings were excluded from the analysis. The postings are open and a threaded, free-text discussion. Participants could start discussion threads and freely respond to each other. The postings consist of a free-text header and the corpus; we combined the two and treated the result as one unit of analysis. The length of the postings varies between one and 901 words. In the dataset that the City of Zurich provided for the purpose of this analysis, all the postings are linked to their contributors' sociodemographic information concerning age, gender and education.

Trained staff moderated the debate to prevent disrespectful behavior. Various studies have pointed out the importance of the moderator role (e.g., Wright and Street 2007). These facilitators not only moderated, but also highlighted contributions they found particularly interesting, they asked the authors of vague postings to clarify them, and sent out daily e-mails to (successfully) try to re-engage former participants by inviting them to return to the forum. The recruitment of participants focused on an open self-selection strategy, that is, all individuals forming the wider public inside and outside Zurich were eligible to participate, without the debate organizers selecting or limiting them.

Our sample contains digital divides in terms of gender and education (see Figure 1), but not a digital age divide. Thus, in the Zurich City debate participants tended to be males over 40 with a high formal education level. The online debate did not draw a young and technophile group that self-selected to participate, but a group that typically tends to be very involved in political participation and yields high voter turnouts. This debate was therefore not based on a representative sample, nor did it exclude less media-savvy groups from expressing their opinions.

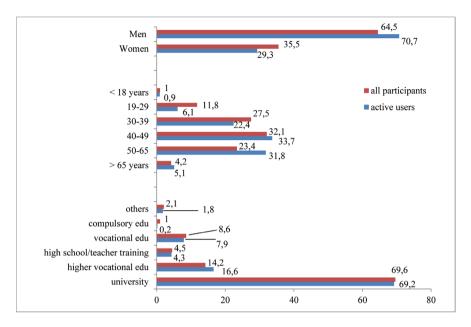


Figure 1: Sociodemographic composition of participants (in %). All participants: N = 1246; Active users: N = 441

4 Method

In this article, the index of a quality of understanding IQU (*Index für Verständigungsorientierung*) (Burkart and Russmann 2010) serves as a quantitative measure of deliberative quality. The index is based on Habermas's (1984) theory of communicative action, as well as on other studies on public discourse (Gerhards, Neidhardt, and Rucht 1998; Graham and Witschke 2003; Kies 2010; Spörndli 2004; Steenbergen, Bächtiger, Spörndli, and Steiner 2003). The index thus specifies the communicative principles of understanding: reciprocity, doubts concerning the four validity claims, statement of reasons for positions taken, proposals for solutions, and expressions of respect. As this article presents research in brief, we will only roughly sketch out the index design; for a detailed account, please consult Klinger and Russmann (2014) as well as Burkart and Rußmann (2010; see also Burkart et al. 2010).

Reciprocity: Reciprocal actions between many people are a key element of online political discussions (Graham and Witschke 2003, p. 178; Kies 2010) and can therefore be defined as a basic condition for deliberation. We distinguish between three different kinds (or values) of reciprocity in discussion postings: monologue, initiation and response.

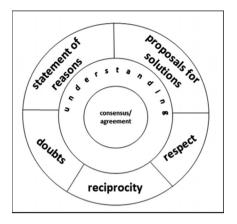


Figure 2: Indicators of a quality of understanding (IQU).

Doubts: Mutual understanding is based on the recognition of different demands and claims. Habermas emphasizes four validity claims (*Geltungsansprüche*) that may spark disagreement, which we have coded as types of doubts: postings that challenge the intelligibility, truth, truthfulness, or legitimacy of a previous message or author. Deliberative democracy scholars have pointed out that "some basic disagreement is necessary to create the problem that deliberative democracy is intended to solve" (Thompson 2008, p. 502). Hence, disagreement or, in this case, the doubts raised, are "a core requirement in deliberative settings" (Mutz 2008, p. 535).

Statement of reasons: To find support and legitimation for their positions, participants should provide sufficient reasons for their statements and decisions (Gutmann and Thompson 2004, p. 3). Following previous research (Spörndli 2004, p. 9f.; Steenbergen et al. 2003, p. 28), we distinguish between four statements of reason levels: No statement of reasons, generalized statements of reasons, simple statements of reasons, and specific statements of reasons.

Solution proposals: To reach a rational consensus concerning the different views and opinions under discussion, participants also offer solutions for particular problems. We distinguish between three solution proposal levels: No solution proposals, partial solution proposals, and precise solution proposals.

Respect: In the process of interaction, the participants need to listen to one another and accept that there are different viewpoints for many questions (Spörndli 2004). Criticism of other participants, their positions, and behavior can have a fruitful and constructive effect on a discussion, as long as this criticism is respectful (Gastil 2008, p. 10). Although disrespectful expressions

may show a high rhetorical quality, they are not oriented towards a common 'understanding'. We coded three levels of respect: Disrespectful expressions, implicitly respectful expressions, and explicitly respectful expressions.

Each expression was coded only once, that is, if participants literally repeated themselves in a single posting, only their first statement was coded. In each posting, we coded up to three variables (in order of appearance) for each indicator, except in the case of indicator reciprocity. The indexing process is based on a scoring system that takes the maximum possible value of each of the five sub-indices into account. The total score was transformed into a scale ranging from 0 to 100. Owing to standardization (of the maximum value), each sub-index was integrated with the same weight into the overall IQU, although the indicators have different manifestations at different levels. Hence, each subindex contributes to the IQU with the same weight.

Four coders coded the 1,991 postings. Overall, the inter-coder reliability is .845 (minimum .641 for statement of reasons; maximum .968 for respect) (Holsti's coefficient), leading to the conclusion that the content analysis in this study is reliable.

Although reality often falls short of these ideals because humans can hardly live up to them (Gastil 2008, p. 22), we posit that such an ideal speech situation (Habermas 1984) "is something that we can use as a critical standard for judging the quality of actual talk" (Gastil 2008, p. 22). Only political discussion oriented towards the communicative principle of understanding can promote the development of a deliberative public sphere. The level of online discourses' quality of understanding is dependent on the strength of these five indicators.

5 Results

5.1 Deliberation quality and gender

The results of the comparison of the quality of the deliberation between the male and the female participants demonstrate that gender does not influence the overall quality of understanding. Comparing the scores of the different subindices, the data in Figure 3 also show that the level of *statement of reasons* and *respect*, as well as the level of *solution proposals* are almost equal in the male and female users' contributions. However, differences can be observed in the other two sub-indices: *type of doubts* and *reciprocity*. The male participants raised slightly more doubts in the debate than the female participants. But the

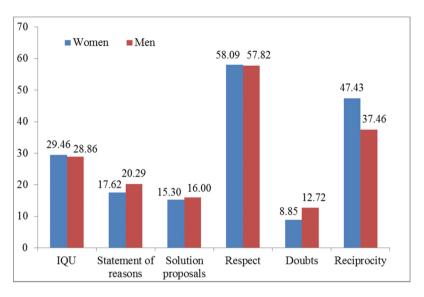


Figure 3: Quality of deliberation and gender: IQU and sub-indices (in %). IQU: p = .270; Statement of reasons: $p = .020^*$; Solution proposals: p = .410; Respect: p = .160; Doubts: $p = .000^{***}$; Reciprocity: $p = .000^{***}$

women tried to a greater extent to interact with other active participants than the men did. Data on the sub-index *reciprocity* shows that male participants prefer to state their position or opinion without referring to others. This may reflect the different communication styles of men and women as found in previous studies.

5.2 Deliberation quality and age

Overall, the age of the participants does not influence the quality of their deliberation, as demonstrated in Figure 4. The data also show great similarities in the level of *respect* (highest sub-index score): The value scores range between 57.49 and 58.33 points between the different age groups. However, the data reveals that active users over the age of 65 generally contributed postings of lower quality than younger people. The scores for the sub-indices *statement of reasons* and *reciprocity* are (much) lower for the 65-plus age group than for any other age group: The oldest participants often simply state their positions, opinions, ideas, etc. without providing reasons and without referring to others. The indicator *reciprocity* of the 65-plus group is 10 to 20 points below the value scores of the other age groups. Given that the online debate's quality of under-

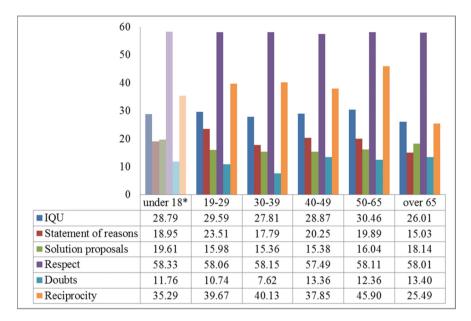


Figure 4: Quality of deliberation and age: IQU and sub-indices (in %).

* The "under 18" sample consists of only 17 individuals.

IQU: $p = .000^{***}$; Statement of reasons: $p = .050^{*}$; Solution proposals: p = .640; Respect: $p = .040^{*}$; Doubts: $p = .000^{***}$; Reciprocity: $p = .000^{***}$

standing is measured on a 100-point scale, a difference of 10 to 20 points is quite large. Nevertheless, people aged 65-plus are still engaged in the discussion: They expressed more doubts than the participants of any other age group, and offered quite a few solution proposals.

5.3 Deliberation quality and education

The data presented in Figure 5 show that the formal education level does not affect the quality of understanding. The comparison of the IQU scores of the overall quality of understanding reveals no evident differences between the education levels. When taking a close look at the different sub-indices, the figures indicate great similarities in the level of *respect*, which has the highest score of all the sub-indices. Across all the formal education levels, the active participants maintained a degree of mutual respect for others, as well as for their positions. Differences in the quality of the deliberation between the education levels can be observed in respect of *statement of reasons, proposals for*

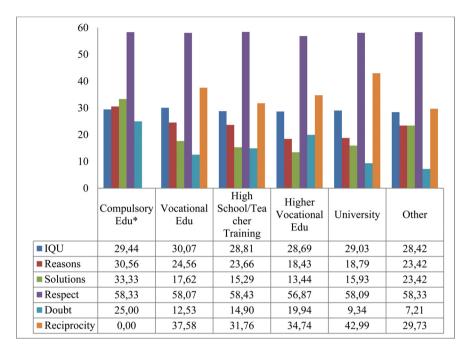


Figure 5: Quality of deliberation and education: IQU and sub-indices (in %). * The "Compulsory Education" sample consists of only one individual. IQU: p = .860; Statement of reasons: $p = .010^*$; Solution proposals: $p = .000^{***}$; Respect: $p = .000^{***}$; Doubts: $p = .000^{***}$; Reciprocity: $p = .010^*$

solutions, type of doubts and reciprocity. However, no clear trend can be discerned.

6 Discussion

Our hypothesis posited that the *quality of deliberation* is not stratified: Once participants join the discussion, the gender, age, and education gaps disappear. The analysis to test this hypothesis examined the content of the 1,991 postings along the index of a quality of understanding. Comparing and contrasting the quality of the deliberation in an online discourse across gender, age, and education supported this hypothesis. The results show that the participants' gender, age, or formal education level do not influence the quality of the understanding. While differences are found between men's and women's communication styles in our analysis, this did not lead to their contributions

having a higher or lower overall quality. We also found that formal education seems to have only a low influence on the quality of deliberation. This could again be due to self-selection effects – those who choose to participate may be particularly interested in politics, politically informed, and competent. A close look at the ten most active participants, who each published between 21 and 72 postings during the three-day debate, emphasizes our findings: Most of the active participants are males of 30 and older, highly educated, interested in different topics, and their postings are of average quality of deliberation. To sum up, the analysis of the 2011 Zurich City debate confirms previous empirical results that the sociodemographic composition of the participants is of great importance for the quantity of the deliberation, but not for its quality.

The remaining question is why the quality of the deliberation was not stratified, but the participation was. One reason may be that the group of selfselected participants consisted of individuals with very high political interest, which leveled out their educational background. This would suggest that future studies should distinguish between the participants' formal education and the degree to which they are politically informed, in particular, as a single-case study does not allow us to generalize these results to all online debates.

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