

A Model of the Dynamics of Subgroup Influence on Boards: The Case of the IASB

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Motivation

- Board effectiveness regulation features almost nothing about the dynamics of deliberation - but these dynamics are important for understanding board decisions and hence board effectiveness.
- Work in the field of conversation analysis (e.g., Lakoff, 1973; Boden 1983, 1994; Lev-Ari and Keysar, 2010) suggests that rhetorical abilities of participants may be more influential than the quality of the propositional content of their statements.

Which leads us to ask:

- Can the dynamics of group deliberation result in the subversion of ‘good’ decision-making?
- In particular, might group decision-making reflect:
 - The deliberative style of participants rather than the substance of their arguments?
 - Unequal levels of contribution from group members (i.e., the voice of some board members being limited)?

Board dynamics literature

The dynamics of board deliberation has not been the focus of much prior research:

- The current literature on boards mostly takes a black box approach to board dynamics (Adair et al., 2017; Van Peteghem et al., 2018) although some analyse board conversations (Kwon et al., 2014; Pugliese et al., 2014; Veltrop et al., 2021).
- One reason for the limited research into dynamics of deliberation is the difficulty in accessing board meetings (Adams et al., 2010 and Watson et al., 2020)
- But we have data from semi-structured interviews and board observations of the IASB.

Methodology

- 19 interviews 2009-2016 and conversation analysis of two board meetings in 2006 at an international accounting regulator, the International Accounting Standards Board.
- Using the empirical findings, we develop a model with core assumptions relating to differences between a subgroup and the rest of the board regarding:
 - Size (how many members)
 - Argumentative capabilities and
 - Probability of violating turn-taking

Evidence from IASB



Evidence: The case of the IASB

Polarisation.

- Interviews with board members and staff indicated the existence of two opposed subgroups (fair value and non-fair value):

“There were some of the initial board members who were definitely drinking the Kool-Aid on fair value and believed that fair value was the answer. Whatever your problem was, fair value was going to be the answer to it. Warren McGregor, Mary Barth, Patricia O’Malley, Jim Leisenring. So, you’ve got a strong intellectual core there, that the answer was fair value. Tell me a question and the answer is ‘fair value’.”

Evidence: The case of the IASB

Rhetorical differences.

- Interviewees noted that the fair-value subgroup were persuasive and difficult to resist, in meetings:

“Jim Leisenring. Warren [McGregor], Mary [Barth] and David [Tweedie]... It was them saying, this is exactly what we should want to do. It was quite hard for the rest of the board to rein that back. And they’re all very clever. Forceful personalities.”
- Board conversation analysis reveals Leisenring’s use of anaphora: “*I don’t care* which one. *I don’t care* whether you leave both in. *I don’t care* which way you go...”

Evidence: The case of the IASB

Violations of turn-taking.

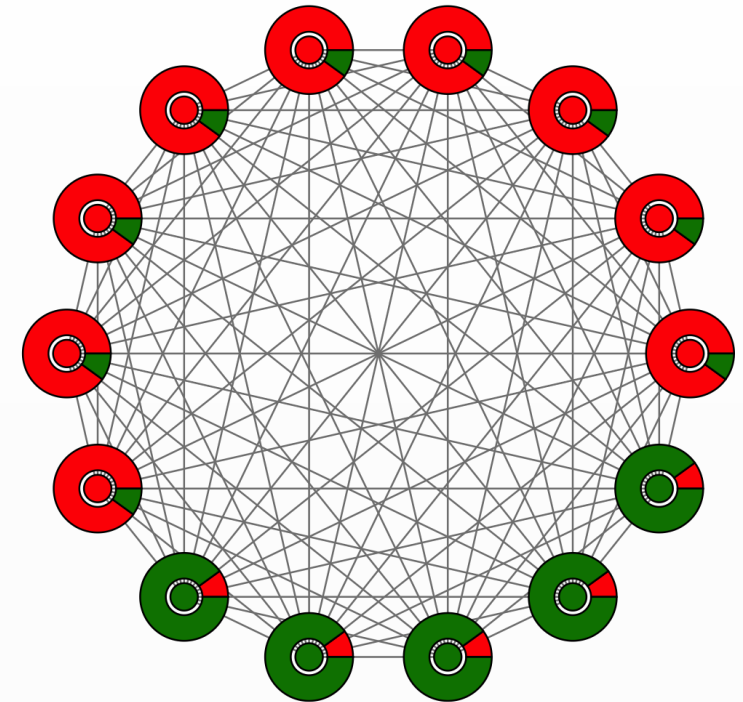
- Members of the FVA group routinely subverted the chair's order of speakers.
- In-group referencing of questions controlled the speech order and strengthened the sense of technical expertise of the group.
- E.g., Jim Leisenring directed a question to Warren and Mary in the October meeting: "What I want to ask of Mary and Warren is if we use these words, do you think we're at exit price fair value?"

Empirical support for model assumptions from an accounting regulatory board (IASB)

	Argumentative Capability		Violation of turn-taking norms	
	Powerful speech style	Non-lexical actions	Violating turn- taking	Support/ referencing own group
Subgroup	50	3	4	59
Other board members	7	0	0	7

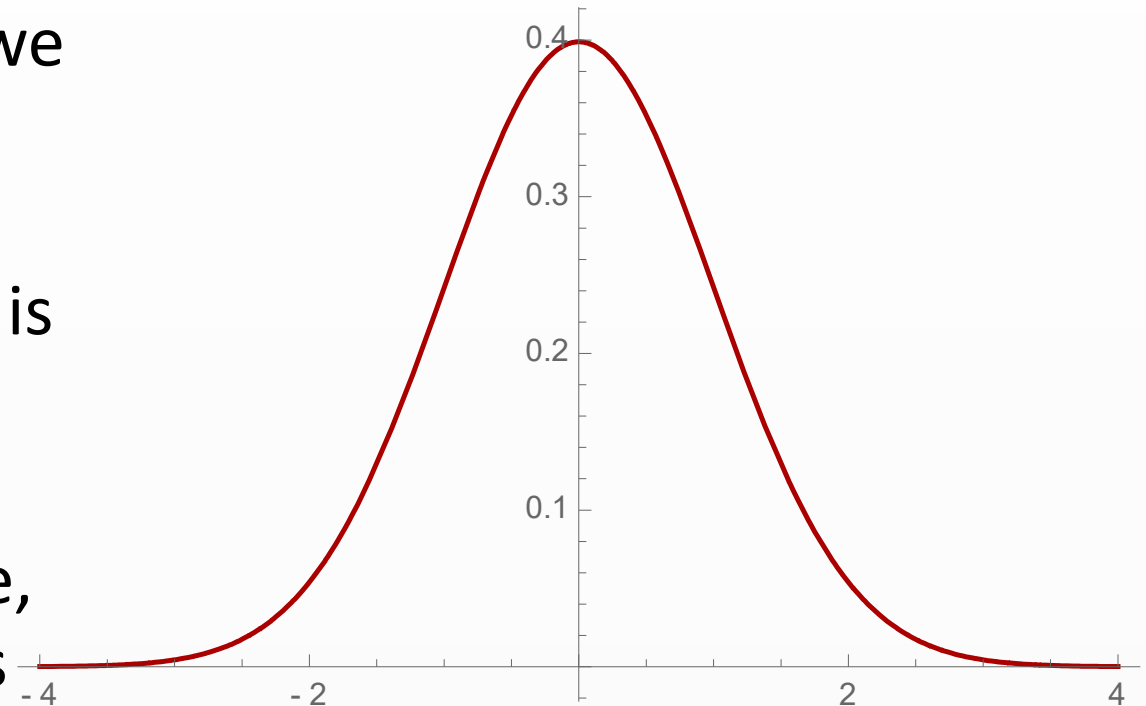
The model

- The board is divided into two opposing groups:
 - Members of T_1 (the majority) initially have a 0.9 probability of voting *Con*
 - T_2 (the minority group) members initially have a 0.9 probability of voting *Pro*.
- A pair of members is randomly selected and each picks a position to argue — *Pro* or *Con* — with probability according to their belief at that time.
- The person who makes the strongest argument “wins”.
- On seeing a “win” everyone on the board updates their beliefs accordingly via reinforcement learning.



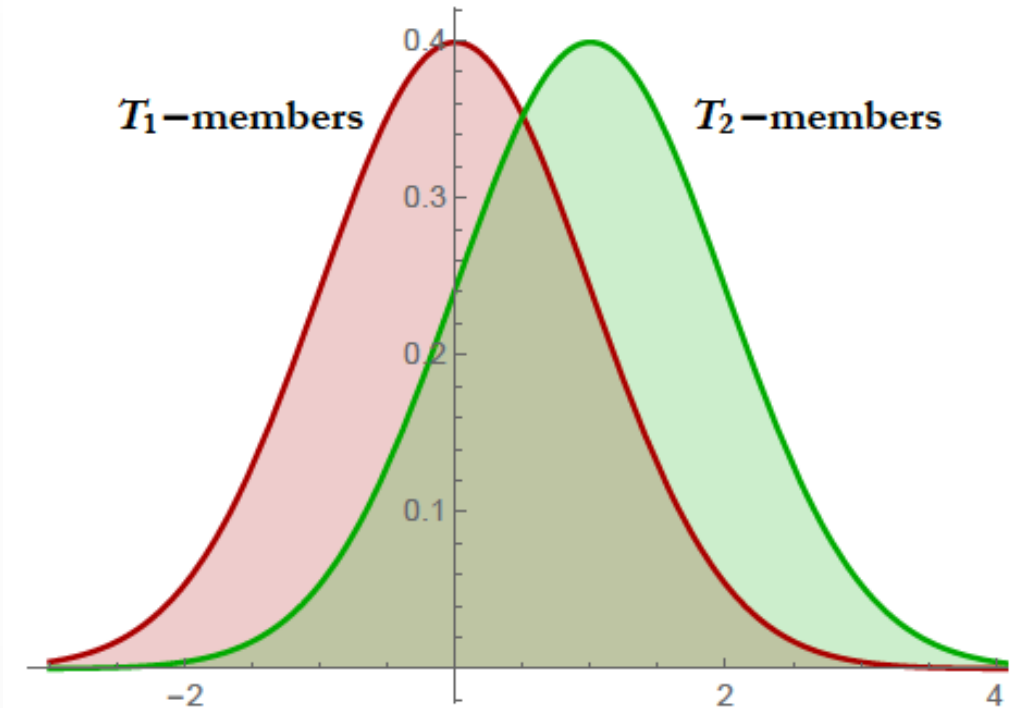
Assumption 1: argumentative capability

- Board members have an *argumentative capability*, which we model as a normally distributed random variable X .
- The strength of a given argument is an observed value of the random variable.
- When two members i and j argue, the observed value of X_i and X_j is compared. Highest value wins.



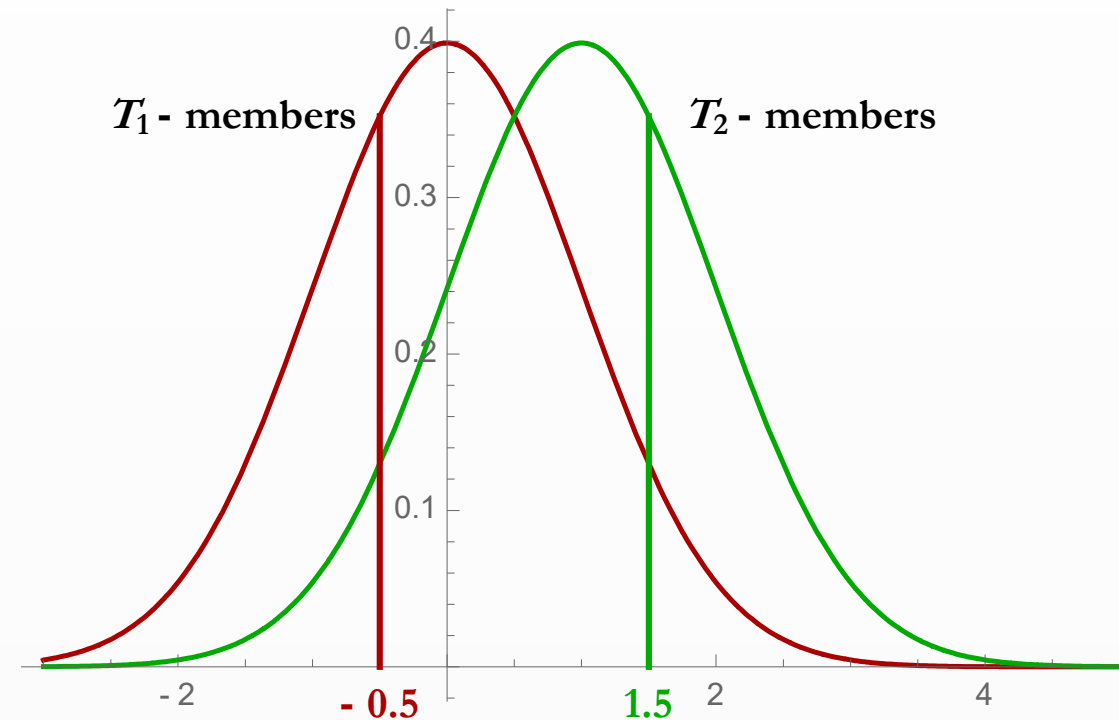
Assumption 1: argumentative capability

- To reflect *relative difference* in argumentative capability between the two groups (T_1 and T_2) we fix T_1 -members' capability as the standard normal ($\mu = 0$) and consider what happens when T_2 -members have a capability $N(\mu, 1)$ for some $\mu \geq 0$.



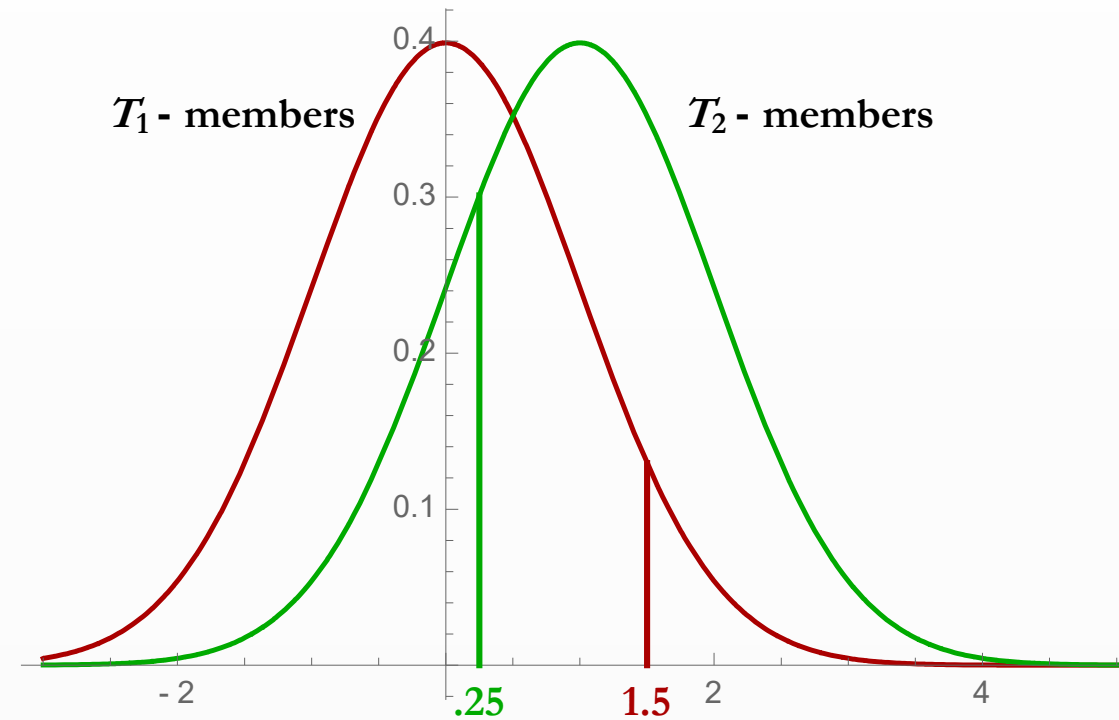
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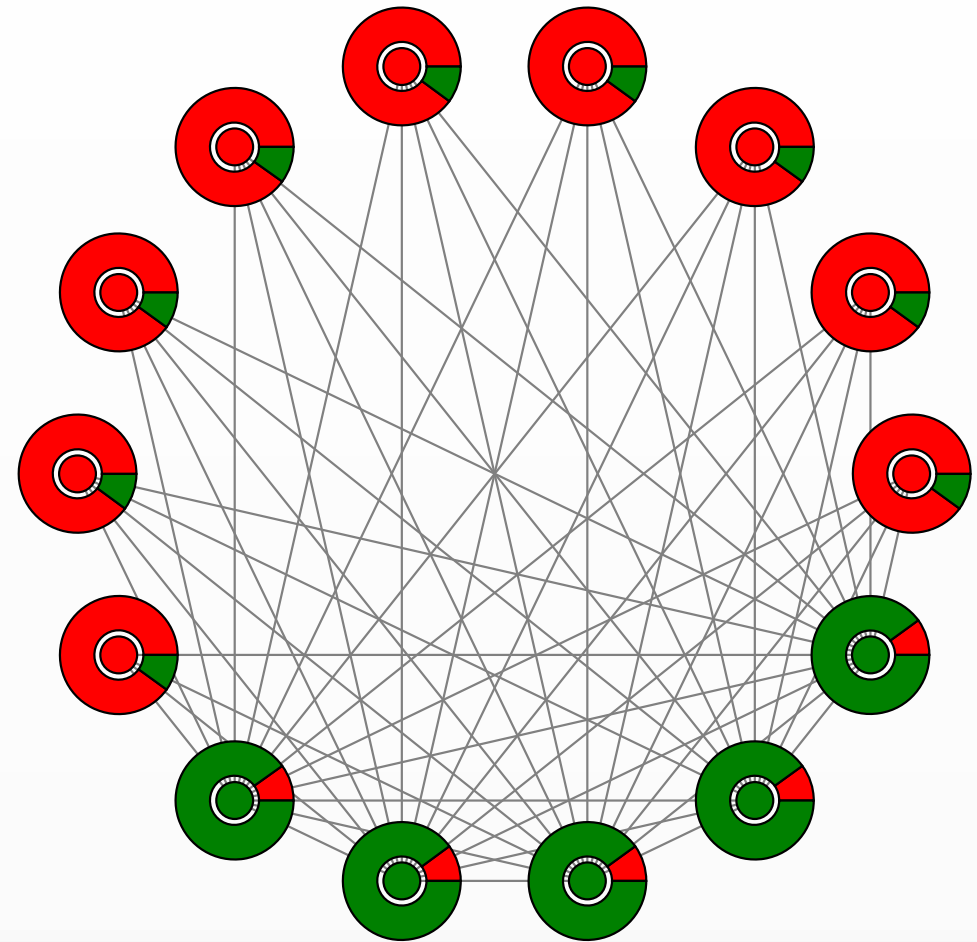
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Assumption 2: Violations of turn-taking

- Based on the empirical case study, we also include a parameter representing the probability that T_2 -members violate the normal order of conversational turn-taking.
- When this happens, the next pairwise exchange must include at least one of the T_2 subgroup.



Findings of the model

- Relative discursive differences between subgroups on the board affect relative influence over board deliberation and voting outcomes.
- For a subgroup of 4 out of 14 board members, with maximal difference in argumentative strength and probability of violating turn-taking, the subgroup is able to influence the voting outcomes 67% of the time (compared to a baseline of only 7%).
- At a size of 5 out of 14 board members, the subgroup influences the voting outcomes almost 80% of the time (compared to a baseline of only 17%).

Limitations

- Realism of assumptions based on evidence from the accounting regulatory board (own due process, public meetings, board size)
 - Due process is stricter than corporate governance regulation
 - Public meetings likely to reduce certain relevant behaviors
 - Board size – our model findings are robust for changes in size
- Voting decisions are driven by many factors apart from deliberation in meetings
 - Our findings are *intended* to abstract from everything except the effect on voting outcomes of subgroup size, argumentative capability and violations of turn-taking (endogenous factors).

Summary

- We develop an empirically informed model of the deliberative dynamics of board meetings which shows how a subgroup can dominate decision-making.
- This subgroup influence is a joint effect of the following variables:
 - Subgroup size
 - Relative argumentative strength of subgroup members
 - Relative probability of violating turn-taking norms for subgroup members

Implications

- Board effectiveness regulation focusing on composition and process misses the importance of board deliberation dynamics.
- Disproportionate subgroup influence may:
 - Undermine programs intended to give voice on the board to different representatives (e.g., diversity of board composition)
 - But may also empower under-represented groups on boards.

Thank you!

Simulation results

		Probability of violating turn-taking					
		0.0	0.1	0.2	0.3	0.4	0.5
Mean of minority subgroup distribution	0.0	39 (1%)	47 (1%)	114 (2%)	227 (5%)	365 (7%)	514 (10%)
	0.1	40 (1%)	63 (1%)	124 (2%)	246 (5%)	381 (8%)	614 (12%)
	0.2	47 (1%)	94 (2%)	164 (3%)	310 (6%)	472 (9%)	728 (15%)
	0.3	39 (1%)	100 (2%)	212 (4%)	330 (7%)	577 (12%)	838 (17%)
	0.4	57 (1%)	128 (3%)	232 (5%)	407 (8%)	631 (13%)	952 (19%)
	0.5	72 (1%)	129 (3%)	253 (5%)	425 (9%)	749 (15%)	1126 (23%)
	0.6	86 (2%)	147 (3%)	302 (6%)	548 (11%)	830 (17%)	1277 (26%)
	0.7	80 (2%)	162 (3%)	335 (7%)	603 (12%)	969 (19%)	1443 (28%)
	0.8	80 (2%)	209 (4%)	391 (8%)	668 (13%)	1062 (21%)	1585 (32%)
	0.9	114 (2%)	214 (4%)	423 (8%)	717 (14%)	1143 (23%)	1758 (35%)
1	104 (2%)	244 (5%)	439 (9%)	804 (16%)	1360 (27%)	1902 (38%)	

(a) $N_1 = 12$ and $N_2 = 2$.

		Probability of violating turn-taking					
		0.0	0.1	0.2	0.3	0.4	0.5
Mean of minority subgroup distribution	0.0	121 (2%)	191 (4%)	291 (6%)	462 (9%)	643 (13%)	879 (18%)
	0.1	170 (3%)	230 (5%)	366 (7%)	555 (11%)	747 (15%)	972 (19%)
	0.2	177 (4%)	246 (5%)	411 (8%)	616 (12%)	812 (16%)	1201 (24%)
	0.3	226 (5%)	300 (6%)	469 (9%)	710 (14%)	999 (20%)	1337 (27%)
	0.4	207 (4%)	370 (7%)	546 (11%)	803 (16%)	1131 (23%)	1468 (28%)
	0.5	249 (5%)	408 (8%)	644 (13%)	916 (18%)	1273 (25%)	1696 (34%)
	0.6	282 (6%)	448 (9%)	728 (15%)	1096 (22%)	1479 (30%)	1906 (38%)
	0.7	298 (6%)	548 (11%)	842 (17%)	1198 (24%)	1626 (33%)	2065 (41%)
	0.8	363 (7%)	555 (11%)	892 (18%)	1224 (24%)	1726 (35%)	2355 (47%)
	0.9	373 (7%)	642 (13%)	964 (19%)	1419 (28%)	1886 (38%)	2475 (50%)
1	492 (10%)	688 (14%)	1047 (21%)	1498 (30%)	2130 (43%)	2601 (52%)	

(b) $N_1 = 11$ and $N_2 = 3$.

		Probability of violating turn-taking					
		0.0	0.1	0.2	0.3	0.4	0.5
Mean of minority subgroup distribution	0.0	333 (7%)	527 (11%)	635 (13%)	856 (17%)	1069 (21%)	1396 (28%)
	0.1	419 (8%)	565 (11%)	700 (14%)	1039 (21%)	1264 (25%)	1569 (31%)
	0.2	494 (10%)	635 (13%)	861 (17%)	1173 (23%)	1446 (28%)	1806 (36%)
	0.3	543 (11%)	769 (15%)	1035 (21%)	1298 (26%)	1628 (33%)	1976 (40%)
	0.4	620 (12%)	886 (18%)	1164 (23%)	1396 (28%)	1754 (35%)	2143 (43%)
	0.5	699 (14%)	926 (19%)	1276 (26%)	1609 (32%)	2016 (40%)	2436 (49%)
	0.6	784 (16%)	1071 (21%)	1423 (28%)	1750 (35%)	2233 (45%)	2668 (53%)
	0.7	910 (18%)	1180 (24%)	1531 (31%)	1948 (39%)	2344 (47%)	2835 (56%)
	0.8	951 (19%)	1292 (26%)	1666 (33%)	2133 (43%)	2614 (52%)	3070 (61%)
	0.9	1018 (20%)	1413 (28%)	1839 (37%)	2263 (45%)	2742 (55%)	3203 (64%)
1	1073 (21%)	1535 (31%)	1995 (40%)	2485 (50%)	2879 (57%)	3370 (67%)	

(c) $N_1 = 10$ and $N_2 = 4$.

		Probability of violating turn-taking					
		0.0	0.1	0.2	0.3	0.4	0.5
Mean of minority subgroup distribution	0.0	859 (17%)	1047 (21%)	1213 (24%)	1456 (28%)	1737 (35%)	1966 (39%)
	0.1	938 (19%)	1198 (24%)	1404 (28%)	1632 (33%)	1924 (38%)	2227 (45%)
	0.2	1067 (21%)	1331 (27%)	1583 (32%)	1881 (38%)	2079 (42%)	2444 (49%)
	0.3	1190 (24%)	1400 (28%)	1778 (36%)	1979 (40%)	2430 (49%)	2681 (54%)
	0.4	1335 (27%)	1595 (32%)	1850 (37%)	2185 (44%)	2576 (52%)	2893 (57%)
	0.5	1476 (30%)	1758 (35%)	2049 (41%)	2426 (49%)	2820 (56%)	3155 (63%)
	0.6	1618 (32%)	1930 (39%)	2307 (46%)	2604 (52%)	2981 (60%)	3352 (67%)
	0.7	1714 (34%)	2035 (41%)	2434 (49%)	2705 (54%)	3121 (62%)	3456 (69%)
	0.8	1817 (36%)	2233 (45%)	2599 (52%)	2961 (59%)	3354 (67%)	3651 (73%)
	0.9	2053 (41%)	2417 (48%)	2742 (55%)	3153 (63%)	3538 (71%)	3765 (75%)
1	2144 (43%)	2559 (51%)	2862 (56%)	3243 (65%)	3634 (73%)	3933 (79%)	

(d) $N_1 = 9$ and $N_2 = 5$.

No individual variation in argumentative capability among subgroup members and the final vote is determined by simple majority.