ABSTRACT

Title of Document:	THE GENDER DYNAMICS OF DISSENT IN ORGANIZATIONS
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Contemporary approaches to organizational behavior tout dissent as critical to organizational success. However, dissenters often incur penalties for expressing opinions that differ from the majority. The current work examines dissent as a gendered phenomenon, taking into account how the social context (i.e., female-dominated, male-dominated, and mixed gender work groups) affects both backlash incurred by female dissenters as well as group performance. Study 1 demonstrated that female dissenters incurred more backlash than did male dissenters and that female participants reacted especially negatively to female dissenters. Study 3 demonstrated that female dissenters expected to receive the most backlash for speaking up in female-dominated groups relative to male-dominated and mixed gender groups. Study 4 demonstrated that women were actually most likely to dissent in female-dominated groups (relative to male-dominated and mixed gender groups), although this did not translate into differences in group performance. However, dissenter communication style emerged as a key moderator of objective (i.e., group performance) and subjective (i.e., backlash toward the dissenter)

outcomes as a function of group composition. Specifically, in female-dominated groups, women's use of impolite communication tactics (e.g., interrupting) were related to decreased performance and increased backlash. Further, women were able to anticipate these backlash consequences. Overall, this work advances the understanding of gendered dissent dynamics in the workplace and how these influence not only female employees but also the organizations in which they are embedded.

THE GENDER DYNAMICS OF DISSENT IN ORGANIZATIONS

By

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Table 1

Study 1 Correlation Matrix

Measure	*M*	*SD*	1	2	3	4	5
1. Years Work	10.694	10.688	-				
2. Education	2.391	0.992	0.154	-			
3. Age	31.851	11.437	.956**	0.206	-		
4. Race[a]	0.713	0.455	.299**	-0.006	.266*	-	
5. Gender[b]	1.586	0.495	-.229*	-0.069	-0.153	-0.018	-
6. Backlash	3.523	1.266	-0.128	-0.144	-0.125	-0.073	0.057

Note. N=87.
[a]Race was coded as Non-Caucasian=0, Caucasian=1
[b]Gender was coded as Female=0, Male=1.
*p<.05. **p<.001.

Table 2

Pattern Matrix for Study 2 Measures Factor Analysis

Item	Relationality	Masculinity	Femininity	Similarity	Status	Backlash
Doesn't care...relationships	**-0.917**	0.053	0.018	0.033	0.024	0.047
Doesn't care…group	**-0.827**	0.005	0.06	0.02	0.085	-0.061
Poor social skills	**-0.797**	-0.105	0.028	-0.06	0.087	-0.015
Disconnected	**-0.74**	0.047	-0.02	0.147	0.137	0.008
Disruptive	**-0.713**	0.071	-0.168	-0.022	0.146	-0.004
Jeopardize relationships	**-0.623**	0.132	-0.234	0.065	0.153	0.044
Competent	*0.334*	0.27	0.048	-0.11	0.137	0.3
Tough	-0.115	**0.862**	0.069	0.017	-0.078	0.022
Bold	0.056	**0.839**	-0.044	-0.006	-0.054	0.004
Aggressive	-0.094	**0.767**	0.014	0.025	-0.012	-0.228
Ambitious	0.126	**0.688**	0.002	-0.056	0.112	0.095
Strong	0.009	**0.684**	0.063	-0.068	-0.12	0.17
Assertive	-0.011	**0.596**	-0.03	-0.011	0.034	0.282
Competitive	0.175	**0.385**	-0.202	0.038	0.348	0.112
Sensitive	0.03	0.027	**0.741**	0.005	0.02	0.07
Modest	0.001	0.027	**0.722**	0.044	-0.066	-0.137
Agreeable	-0.06	-0.034	**0.712**	3	-0.066	0.02
Understanding	0.148	-0.032	**0.698**	-0.123	0.023	0.099
Supportive	0.064	-0.008	**0.63**	-0.246	0.02	0.078
Caring	0.145	0.057	**0.586**	-0.024	0.102	0.252
Work with on another	-0.051	0.004	*0.425*	-0.224	-0.14	0.382
Well-informed	0.221	0.227	*0.25*	-0.226	0.111	0.184
Similar	-0.041	0.009	-0.049	**-0.984**	0.007	0.007
Different	-0.075	0.05	0.153	**0.825**	0.081	0.013
Common	-0.088	0.066	0.095	**-0.76**	-0.001	0.115
On the same page	0.009	0.008	0.3	**-0.64**	0.054	-0.151
Overestimate status	-0.237	-0.005	-0.014	0.05	**0.648**	-0.178
Trying to take over	-0.188	-0.043	-0.095	0.091	**0.623**	-0.048
Doesn't know place	-0.263	-0.124	0.106	-0.038	**0.617**	-0.244
Out of line	-0.301	-0.136	0.087	0.07	**0.575**	-0.17
Trying to get status	-0.438	-0.035	-0.086	0.112	**0.477**	0.049
Challenging me	-0.125	0.063	-0.141	0.154	**0.47**	0.068
Take seriously	0.075	0.055	-0.008	-0.107	-0.113	**0.76**
Respect	-0.005	0.099	0.041	-0.098	-0.165	**0.709**
Beneficial	-0.012	0.054	0.346	-0.059	-0.128	**0.556**
Enjoy	0.057	-0.037	0.425	-0.067	-0.171	**0.438**
Intelligent	0.307	0.282	0.099	-0.125	0.203	*0.37*
Helpful	0.292	0.096	0.26	-0.013	0.044	**0.341**

Note. N=281. Bolded numbers indicate the highest loading for a given item. Italicized items are those that did not load at more than .30 on a factor or loaded significantly on a factor that did not correspond to the appropriate scale for the item.

Table 3

Study 2 Correlation Matrix

Measure	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1. Years Work	13.16	11.48	-											
2. Education	2.60	1.04	-0.005	-										
3. Age	34.29	12.36	.924**	0.099	-									
4. Race[a]	0.75	0.43	.272**	-0.082	.265**	-								
5. Gender[b]	0.45	0.50	0.003	.136*	-0.058	-0.019	-							
6. Backlash	3.46	1.10	-0.091	-0.106	-.130*	-0.056	-0.013	*0.90*						
7. Femininity	3.44	1.07	0.036	0.079	0.032	0.039	0.081	-.692**	*0.89*					
8. Masculinity	5.21	0.94	0.065	-0.015	.147*	0.055	0.008	-.299**	0.059	*0.88*				
9. Competence	4.68	1.07	0.071	0.047	0.113	0.045	-0.044	-.638**	.454**	.531**	*0.83*			
10. Status Violations	3.21	1.33	-0.086	-0.034	-.153*	-0.094	.128*	.630**	-.439**	-0.08	-.427**	*0.91*		
11. Similarity	3.48	1.27	-0.037	.160**	-0.036	0.061	0.088	-.582**	.595**	0.093	.430**	-.429**	*0.88*	
12. Relationality	5.01	1.42	0.11	0.041	0.116	0.111	-0.077	-.604**	.420**	.141*	.500**	-.786**	.396**	*0.93*

Note. *N*=281. Cronbach's α values are displayed on the diagonal.

[a]Race was coded as Non-Caucasian=0, Caucasian=1

[b]Gender was coded as Female=0, Male=1.

*p<.05. **p<.001.

Table 4

LIWC Categories and Psychometric Properties

Category	Abbrev	Examples	Words in category	Validity (judges)	Alpha: Binary/raw
Linguistic Processes					
Word count	wc				
words/sentence	wps				
Dictionary words	dic				
Words>6 letters	sixltr				
Total function words	funct		464		.97/.40
Total pronouns	pronoun	I, them, itself	116		.91/.38
Personal pronouns	ppron	I, them, her	70		.88/.20
1st pers singular	i	I, me, mine	12	.52	.62/.44
1st pers plural	we	We, us, our	12		.66/.47
2nd person	you	You, your, thou	20		.73/.34
3rd pers singular	shehe	She, her, him	17		.75/.52
3rd pers plural	they	They, their, they'd	10		.50/.36
Impersonal pronouns	ipron	It, it's, those	46		.78/.46
Articles	article	A, an, the	3		.14/.14
[Common verbs][a]	verb	Walk, went, see	383		.97/.42
Auxiliary verbs	auxverb	Am, will, have	144		.91/.23
Past tense [a]	past	Went, ran, had	145	.79	.94/.75
Present tense [a]	present	Is, does, hear	169		.91/.74
Future tense [a]	future	Will, gonna	48		.75/.02
Adverbs	adverb	Very, really, quickly	69		.84/.48
Prepositions	prep	To, with, above	60		.88/.35
Conjunctions	conj	And, but, whereas	28		.70/.21
Negations	negate	No, not, never	57		.80/.28
Quantifiers	quant	Few, many, much	89		.88/.12
Numbers	number	Second, thousand	34		.87/.61
Swear words	swear	Damn, piss, fuck	53		.65/.48
Psychological Processes					
Social processes[b]	social	Mate, talk, they, child	455		.97/.59
Family	family	Daughter, husband, aunt	64	.87	.81/.65
Friends	friend	Buddy, friend, neighbor	37	.70	.53/.12
Humans	human	Adult, baby, boy	61		.86/.26
Affective processes	affect	Happy, cried, abandon	915		.97/.36
Positive emotion	posemo	Love, nice, sweet	406	.41	.97/.40
Negative emotion	negemo	Hurt, ugly, nasty	499	.31	.97/.61
Anxiety	anx	Worried, fearful, nervous	91	.38	.89/.33
Anger	anger	Hate, kill, annoyed	184	.22	.92/.55
Sadness	sad	Crying, grief, sad	101	.07	.91/.45
Cognitive processes	cogmech	cause, know, ought	730		.97/.37
Insight	insight	think, know, consider	195		.94/.51
Causation	cause	because, effect, hence	108	.44	.88/.26
Discrepancy	discrep	should, would, could	76	.21	.80/.28
Tentative	tentat	maybe, perhaps, guess	155		.87/.13
Certainty	certain	always, never	83		.85/.29
Inhibition	inhib	block, constrain, stop	111		.91/.20
Inclusive	incl	And, with, include	18		.66/.32

Category	Abbrev	Examples	Words in category	Validity (judges)	Alpha: Binary/raw
Exclusive	excl	But, without, exclude	17		.67/.47
Perceptual processes[c]	percept	Observing, heard, feeling	273		.96/.43
See	see	View, saw, seen	72		.90/.43
Hear	hear	Listen, hearing	51		.89/.37
Feel	feel	Feels, touch	75		.88/.26
Biological processes	bio	Eat, blood, pain	567	.53	.95/.53
Body	body	Cheek, hands, spit	180		.93/.45
Health	health	Clinic, flu, pill	236		.85/.38
Sexual	sexual	Horny, love, incest	96		.69/.34
Ingestion	ingest	Dish, eat, pizza	111		.86/.68
Relativity	relativ	Area, bend, exit, stop	638		.98/.51
Motion	motion	Arrive, car, go	168		.96/.41
Space	space	Down, in, thin	220		.96/.44
Time	time	End, until, season	239		.94/.58
Personal Concerns					
Work	work	Job, majors, xerox	327		.91/.69
Achievement	achieve	Earn, hero, win	186		.93/.37
Leisure	leisure	Cook, chat, movie	229		.88/.50
Home	home	Apartment, kitchen, family	93		.81/.57
Money	money	Audit, cash, owe	173		.90/.53
Religion	relig	Altar, church, mosque	159		.91/.53
Death	death	Bury, coffin, kill	62		.86/.40
Spoken categories					
Assent	assent	Agree, OK, yes	30		.59/.41
Nonfluencies	nonflu	Er, hm, umm	8		.28/.23
Fillers	filler	Blah, Imean, youknow	9		.63/.18

"Words in category" refers to the number of different dictionary words that make up the variable category; "Validity judges" reflect the simple correlations between judges' ratings of the category with the LIWC variable (from Pennebaker & Francis, 1996). "Alphas" refer to the Cronbach alphas for the internal reliability of the specific words within each category. The binary alphas are computed on the occurrence/non-occurrence of each dictionary word whereas the raw or uncorrected alphas are based on the percentage of use of each of the category words within the texts. All alphas were computed on a sample of 2800 randomly selected text files from our language corpus.

The LIWC dictionary generally arranges categories hierachically. For example, all pronouns are included in the overarching category of function words. The category of pronouns is the sum of personal and impersonal pronouns. There are some exceptions to the hierarchy rules:

[a] Common verbs are not included in the function word category. Similarly, common verbs (as opposed to auxiliary verbs) that are tagged by verb tense are included in the past, present, and future tense categories but not in the overall function word categories.

[b] Social processes include a large group of words (originally used in LIWC2001) that denote social processes, including all non-first-person-singular personal pronouns as well as verbs that suggest human interaction (talking, sharing).

[c] Perceptual processes include the entire dictionary of the Qualia category (which is a separate dictionary), which includes multiple sensory and perceptual dimensions associated with the five senses.

Table 5

Means and Standard Deviations for Evaluations of Female and Male Dissenters in Study 2

DV	Dissenter Gender	*M*	*SD*
Backlash	Female	3.46	1.10
	Male	3.46	1.10
Femininity	Female	3.53	0.99
	Male	3.33	1.16
Masculinity	Female	5.21	0.90
	Male	5.20	0.99
Competence	Female	4.66	1.06
	Male	4.71	1.09
Status Viol.	Female	3.20	1.29
	Male	3.21	1.39
Similarity	Female	3.51	1.28
	Male	3.45	1.27
Relationality	Female	4.96	1.38
	Male	5.07	1.46

Note. N=182.

Table 6

Study 3 Correlation Matrix

Measure	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Years Work	12.507	11.900	-											
2. Education	2.394	1.127	.237*	-										
3. Age	33.431	13.406	.928**	.250*	-									
4. Psych. Safety	4.403	2.001	.288*	.114	.214	*.933*								
5. Backlash	4.211	1.400	-.251*	.031	-.259*	-.407**	*.938*							
6. Femininity	3.465	1.562	.075	-.174	.158	.123	-.718**	*.935*						
7. Masculinity	4.199	1.563	.160	.172	.128	.611**	-.456**	.128	*.933*					
8. Competence	4.250	1.747	.212	.143	.231	.440**	-.763**	.597**	.592**	*.912*				
9. Status	3.809	1.549	-.082	.187	-.113	-.012	.460**	-.433**	.158	-.278*	*.913*			
10. Similarity	2.500	1.423	.136	-.152	.182	.312**	-.673**	.675**	.184	.566**	-.486**	*.957*		
11. Relationality	4.547	1.581	.276*	-.085	.235*	.305**	-.724**	.523**	.208	.518**	-.711**	.489**	*.940*	
12. Courage	4.535	1.723	.184	.073	.170	.527**	-.639**	.379**	.782**	.754**	-.024	.318**	.379**	*.860*

Note. Cronbach's α values are displayed on the diagonal.
*$p<.05$. **$p<.001$.

Table 7

Means and Standard Deviations By Group Composition for Anticipated Evaluations in Study 3

Condition	Backlash		Femininity		Masculinity		Competence		Status		Similarity		Relationality		Courage		Psych. Safety	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Female-Dominated	4.45	1.49	2.90	1.60	4.38	1.52	3.97	1.98	4.42	1.40	1.93	1.13	4.07	1.79	4.58	1.86	4.38	1.88
Mixed Gender	3.73	1.47	4.32	1.31	4.39	1.49	4.74	1.69	3.33	1.51	3.14	1.57	4.99	1.54	4.95	1.59	4.88	2.24
Male-Dominated	4.39	1.16	3.30	1.44	3.83	1.67	4.10	1.50	3.59	1.58	2.53	1.36	4.66	1.26	4.10	1.65	3.99	1.88

Note. N=72.

Table 8

Agreement Analyses for Study 4 Group Member Measures

Measure	$F(56,113)$	p	ICC(1)	ICC(2)
Backlash	2.04	.001	.26	.51
Femininity	3.06	.001	.41	.67
Masculinity	2.14	.001	.28	.54
Competence	1.76	.006	.20	.43
Status	1.77	.001	.25	.50
Similarity	1.47	.044	.14	.32
Relationality	2.32	.001	.31	.57
Courageous	1.49	.038	.14	.33

Table 9

Study 4 Correlation Matrix (continued on the next page).

Measure	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Dissenter Race[a]	0.84	0.37	-											
2. Dissenter Age	19.71	2.87	-.328*	-										
3. Grp. Majority Age	19.97	1.45	-.139	-.021	-									
4. Age Difference	0.26	3.25	.313*	-.894**	.468**	-								
5. Previous Rel.	1.45	0.40	.161	-.034	.196	.119	-							
6. Dissent	19.06	4.89	.055	.144	.23	-.024	.078	-						
7. Performance	3.46	1.95	.028	-.049	.132	.104	.013	.574**	-					
8. Backlash	2.19	0.70	.042	.000	.114	.055	-.135	-.177	-.255	.884				
9. Femininity	5.24	0.90	-.053	.118	-.008	-.108	.144	-.122	-.158	-.644**	.941			
10. Masculinity	4.56	0.86	.082	-.083	-.117	.020	.102	.358**	.351**	-.141	-.268*	.934		
11. Competence	5.60	0.64	.066	-.006	-.059	-.022	.153	.320*	.357**	-.677**	.412**	.431**	.778	
12. Status	1.97	0.77	.136	-.076	-.052	.043	-.021	.178	.166	.375**	-.721**	.586**	-.082	.912
13. Similarity	4.04	0.75	.189	-.173	-.213	.048	.332*	-.053	.049	-.626**	.552**	.098	.498**	-.300*
14. Relationality	6.50	0.59	-.034	.029	-.089	-.072	.027	-.111	-.040	-.543**	.684**	-.293*	.309*	-.755**
15. Courage	5.02	0.83	.010	-.101	-.041	.071	.078	.351**	.312*	-.449**	-.024	.743**	.655**	.321*
16. Exp. Backlash	2.86	1.18	.029	-.026	-.033	.008	-.119	-.354**	-.432**	.501**	-.143	-.177	-.250	-.030
17. Exp. Femininity	4.95	0.98	.258	.011	.018	-.001	.075	-.168	-.276*	-.070	.239	-.289*	-.044	-.173
18. Exp. Masculinity	4.31	1.34	.043	-.091	.065	.109	-.020	.434**	.620**	-.203	-.295*	.422**	.313*	.236
19. Exp. Competence	5.28	1.13	.137	.044	.083	.000	.055	.421**	.431**	-.166	-.155	.243	.230	.133
20. Exp. Status	2.30	1.07	.025	-.173	-.044	.133	-.012	.333*	.430**	-.056	-.238	.408**	.062	.170
21. Exp. Similarity	4.19	0.92	.116	.043	-.048	-.060	-.051	.276*	.272*	-.169	.033	.0190	.032	.069
22. Exp. Relationality	6.12	1.01	.075	.113	-.043	-.120	.002	.043	.124	-.249	.215	-.104	.167	-.114
23. Exp. Courage	4.55	1.40	.010	.065	.073	-.025	-.016	.271*	.384**	-.103	-.259	.272*	.155	.188
24. Felt Power	5.32	1.73	-.087	.072	.116	-.009	.049	.533**	.715**	-.510**	.065	.261*	.384**	.101
25. Psych Safety	5.47	1.25	-.094	.082	.01	-.068	-.037	.322*	.474**	-.188	-.219	.382**	.296*	.292*

Note. N=57. Cronbach's α values are displayed on the diagonal.
[a]Race was coded as Caucasian=1, Non-Caucasian=0.
*p<.05. **p<.001.

Continuation of Study 4 Correlation Matrix

Measure	13	14	15	16	17	18	19	20	21	22	23	24	25
13. Similarity	*.849*												
14. Relationality	.441[**]	*.924*											
15. Courage	.211	-.097	*.706*										
16. Exp. Backlash	-.235	-.097	-.303[*]	*.903*									
17. Exp. Femininity	.12	.075	-.214	-.358[**]	*.829*								
18. Exp. Masculinity	.033	-.03	.422[**]	-.540[**]	-.061	*.924*							
19. Exp. Competence	-.03	.03	.330[*]	-.615[**]	.227	.714[**]	*.87*						
20. Exp. Status	-.094	-.062	.312[*]	-.076	-.439[**]	.547[**]	.261[*]	*.868*					
21. Exp. Similarity	-.019	-.095	-.070	-.477[**]	.219	.143	.217	-.235	*.783*				
22. Exp. Relationality	.163	.214	.024	-.483[**]	.404[**]	.048	.331[*]	-.447[**]	.484[**]	*.859*			
23. Exp. Courage	-.102	-.005	.352[**]	-.488[**]	.098	.768[**]	.734[**]	.436[**]	.000	.117	*.763*		
24. Empowerment	.208	.058	.423[**]	-.778[**]	-.042	.618[**]	.532[**]	.218	.426[**]	.391[**]	.464[**]	*.955*	
25. Psych Safety	.072	-.013	.428[**]	-.554[**]	.054	.599[**]	.582[**]	.175	.229	.426[**]	.545[**]	.624[**]	*.909*

Note. N=57. Cronbach's α values are displayed on the diagonal.
[a]Race was coded as Caucasian=1, Non-Caucasian=0.
[*]$p<.05$. [**]$p<.001$

Table 10.

Results of Stepwise Regression Examining Effects of Dissent and Group Composition on Group Performance

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.350	.350	9.492[**]	(3,53)
Dissent	.226	.047	.567[**]				
Mixed_Gender_Dummy	.171	.524	.043				
Male_Dominated_Dummy	-.516	.583	-.115				
Step 2				.351	.001	0.051	(2,51)
Dissent	.226	.078	.569[**]				
Mixed_Gender_Dummy	.194	.545	.049				
Male_Dominated_Dummy	-.548	.610	-.122				
Dissent[*]Mixed_Gender_Dummy	.014	.110	.021				
Dissent[*]Male_Dominated_Dummy	-.027	.129	-.031				

Note. [†]$p<.10$. [*]$p<.05$. [**]$p<.001$.

Table 11

Results of Stepwise Regression Examining Effects of Interrupting and Group Composition on Group Performance.

Predictor	B	SE B	β	R^2	ΔR^2	ΔF	(dfs)
Step 1				.072	.072	1.369	(3,53)
Interrupt	4.091	54.594	.010				
Mixed_Gender_Dummy	-.687	.590	-.173				
Male_Dominated_Dummy	-1.334	.665	-.298[*]				
Step 2				.191	.119	3.740[*]	(2,51)
Interrupt	-213.378	96.411	-.519[*]				
Mixed_Gender_Dummy	-.654	.562	-.165				
Male_Dominated_Dummy	-1.231	.634	-.275[†]				
Interrupt[*]Mixed_Gender_Dummy	281.404	123.105	.465[*]				
Interrupt[*]Male_Dominated_Dummy	353.229	142.016	.427[*]				

Note. [†]$p<.10$. [*]$p<.05$. [**]$p<.001$.

Table 12

Results of Stepwise Regression Examining Effects of Negating and Group Composition on Group Performance.

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.159	.159	3.343*	(3,53)
Negating	-.577	.246	-.306*				
Mixed_Gender_Dummy	-.342	.578	-.086				
Male_Dominated_Dummy	-1.093	.641	-.244†				
Step 2				.250	.091	3.084†	(2,51)
Negating	-1.896	.585	-1.004**				
Mixed_Gender_Dummy	-.797	.590	-.201				
Male_Dominated_Dummy	-1.376	.723	-.307†				
Negating*Mixed_Gender_Dummy	1.612	.650	.756*				
Negating*Male_Dominated_Dummy	1.407	.862	.327				

Note. †$p<.10$. *$p<.05$. **$p<.001$.

Table 13

Results of Stepwise Regression Examining Effects of Negativity and Group Composition on Group Performance

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.089	.089	1.730	(3,53)
Negativity	-.294	.292	-.132				
Mixed_Gender_Dummy	-.631	.585	-.159				
Male_Dominated_Dummy	-1.309	.659	-.292[†]				
Step 2				.163	.074	2.248[†]	(2,51)
Negativity	-2.281	.986	-1.027[*]				
Mixed_Gender_Dummy	-.457	.579	-.115				
Male_Dominated_Dummy	-1.128	.650	-.252[†]				
Negativity[*]Mixed_Gender_Dummy	2.038	1.153	.440[†]				
Negativity[*]Male_Dominated_Dummy	2.213	1.045	.822[*]				

Note. [†]*p*<.10. [*]*p*<.05. [**]*p*<.001.

Table 14

Results of Stepwise Regression Examining Effects of Dissent and Group Composition on Evaluations of Dissenter Courage

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	(dfs)
Step 1				.210	.210	4.695[**]	(3,53)
Dissent	.060	.022	.354[*]				
Mixed_Gender_Dummy	.238	.246	.141				
Male_Dominated_Dummy	-.387	.273	-.203				
Step 2				.278	.068	2.413[†]	(2,51)
Dissent	.011	.035	.062				
Mixed_Gender_Dummy	.204	.245	.121				
Male_Dominated_Dummy	-.523	.274	-.274[†]				
Dissent[*]Mixed_Gender_Dummy	.106	.049	.377[*]				
Dissent[*]Male_Dominated_Dummy	.033	.058	.089				

Note. [†]$p<.10$. [*]$p<.05$. [**]$p<.001$.

Table 15

Results of Stepwise Regression Examining Effects of Interrupting and Group Composition on Backlash toward the Dissenter

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.078	.078	1.495	(3,53)
Interrupt	28.302	19.456	.193				
Mixed_Gender_Dummy	.142	.210	.100				
Male_Dominated_Dummy	.362	.237	.226				
Step 2				.229	.151	4.998*	(2,51)
Interrupt	117.803	33.642	.802**				
Mixed_Gender_Dummy	.135	.196	.095				
Male_Dominated_Dummy	.326	.221	.203				
Interrupt*Mixed_Gender_Dummy	-128.386	42.957	-.593**				
Interrupt*Male_Dominated_Dummy	-122.047	49.556	-.413*				

Note. †p<.10. *p<.05. **p<.001.

Table 16

*Results of Stepwise Regression Examining Effects of Interrupting and Group
Composition on Dissenter Femininity*

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	(dfs)
Step 1				.050	.050	0.931	(3,53)
Interrupt	-39.713	25.463	-.210				
Mixed_Gender_Dummy	.050	.275	.028				
Male_Dominated_Dummy	.176	.310	.085				
Step 2				.208	.158	5.099*	(2,51)
Interrupt	-152.954	43.957	-.807**				
Mixed_Gender_Dummy	.051	.256	.028				
Male_Dominated_Dummy	.215	.289	.104				
Interrupt*Mixed_Gender_Dummy	178.591	56.128	.640**				
Interrupt*Male_Dominated_Dummy	124.446	64.750	.326†				

Note. †*p*<.10. *p<.05. **p<.001.

Table 17

Results of Stepwise Regression Examining Effects of Interrupting and Group Composition on Dissenter Competence

Predictor	*B*	*SE B*	*β*	*R²*	*ΔR²*	*ΔF*	*(dfs)*
Step 1				.110	.110	2.182	(3,53)
Interrupt	-32.308	17.570	-.239†				
Mixed_Gender_Dummy	-.197	.190	-.151				
Male_Dominated_Dummy	-.366	.214	-.248†				
Step 2				.189	.079	2.482†	(2,51)
Interrupt	-91.327	31.718	-.676**				
Mixed_Gender_Dummy	-.189	.185	-.145				
Male_Dominated_Dummy	-.339	.209	-.230				
Interrupt*Mixed_Gender_Dummy	78.911	40.500	.397†				
Interrupt*Male_Dominated_Dummy	91.148	46.721	.335†				

Note. †$p<.10$. *$p<.05$. **$p<.001$.

Table 18

Results of Stepwise Regression Examining Effects of Interrupting and Group Composition on Dissenter Status Violations

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.051	.051	0.940	(3,53)
Interrupt	7.437	21.849	.046				
Mixed_Gender_Dummy	-.131	.236	-.083				
Male_Dominated_Dummy	-.434	.266	-.245				
Step 2				.167	.116	3.556*	(2,51)
Interrupt	93.239	38.707	.573*				
Mixed_Gender_Dummy	-.134	.226	-.086				
Male_Dominated_Dummy	-.466	.255	-.263†				
Interrupt*Mixed_Gender_Dummy	-128.775	49.424	-.537*				
Interrupt*Male_Dominated_Dummy	-106.432	57.016	-.325†				

Note. †$p<.10$. *$p<.05$. **$p<.001$.

Table 19

Results of Stepwise Regression Examining Effects of Interrupting and Group Composition on Dissenter Similarity

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.075	.075	1.442	(3,53)
Interrupt	-43.799	21.133	-.275*				
Mixed_Gender_Dummy	.064	.228	.042				
Male_Dominated_Dummy	-.013	.257	-.008				
Step 2				.221	.146	4.783*	(2,51)
Interrupt	-139.278	36.672	-.874**				
Mixed_Gender_Dummy	.074	.214	.048				
Male_Dominated_Dummy	.028	.241	.016				
Interrupt*Mixed_Gender_Dummy	132.742	46.826	.565**				
Interrupt*Male_Dominated_Dummy	138.026	54.019	.430*				

Note. †$p<.10$. *$p<.05$. **$p<.001$.

Table 20

Results of Stepwise Regression Examining Effects of Interrupting and Group Composition on Dissenter Relationality

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.021	.021	0.387	(3,53)
Interrupt	-17.624	17.023	-.141				
Mixed_Gender_Dummy	-.039	.184	-.033				
Male_Dominated_Dummy	-.027	.207	-.020				
Step 2				.295	.274	9.907[**]	(2,51)
Interrupt	-120.046	27.319	-.962[**]				
Mixed_Gender_Dummy	-.030	.159	-.025				
Male_Dominated_Dummy	.016	.180	.012				
Interrupt[*]Mixed_Gender_Dummy	144.056	34.883	.783[**]				
Interrupt[*]Male_Dominated_Dummy	144.978	40.241	.577[**]				

Note. [†]$p<.10$. [*]$p<.05$. [**]$p<.001$.

Table 21

Results of Stepwise Regression Examining Effects of Asking Questions and Group Composition on Backlash toward the Dissenter

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	(dfs)
Step 1				.044	.044	0.808	(3,53)
Questions	.026	.069	.052				
Mixed_Gender_Dummy	.153	.216	.108				
Male_Dominated_Dummy	.342	.248	.213				
Step 2				.165	.122	3.718[*]	(2,51)
Questions	-.474	.278	-.950[**]				
Mixed_Gender_Dummy	.322	.232	.227				
Male_Dominated_Dummy	.559	.258	.349				
Questions*Mixed_Gender_Dummy	.807	.318	.673[*]				
Questions*Male_Dominated_Dummy	.464	.288	.797[*]				

Note. [†]$p<.10$. [*]$p<.05$. [**]$p<.001$.

Table 22

Results of Stepwise Regression Examining Effects of Asking Questions and Group Composition on Dissenter Femininity

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.015	.015	0.264	(3,53)
Questions	.060	.090	.094				
Mixed_Gender_Dummy	-.014	.283	-.008				
Male_Dominated_Dummy	.123	.325	.060				
Step 2				.133	.119	3.488*	(2,51)
Questions	.995	.365	1.546**				
Mixed_Gender_Dummy	-.387	.305	-.212				
Male_Dominated_Dummy	-.223	.338	-.108				
Questions*Mixed_Gender_Dummy	-.954	.418	-.617*				
Questions*Male_Dominated_Dummy	-.999	.378	-1.331*				

Note. † $p<.10$. * $p<.05$. ** $p<.001$.

Table 23

Results of Stepwise Regression Examining Effects of Dissent and Group Composition on Psychological Safety

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.173	.173	3.695[*]	(3,53)
Dissent	.101	.034	.398[**]				
Mixed_Gender_Dummy	.746	.379	.294[†]				
Male_Dominated_Dummy	.145	.421	.051				
Step 2				.315	.142	5.282[**]	(2,51)
Dissent	-.029	.051	-.114				
Mixed_Gender_Dummy	.568	.359	.224				
Male_Dominated_Dummy	-.079	.401	-.027				
Dissent[*]Mixed_Gender_Dummy	.221	.072	.520[**]				
Dissent[*]Male_Dominated_Dummy	.196	.085	.349[*]				

Note. [†]$p<.10$. [*]$p<.05$. [**]$p<.001$.

Table 24

Results of Stepwise Regression Examining Effects of Dissent and Group Composition on First Personal Plural Words in the Dissenter's Description of Her Experience

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.055	.055	1.024	(3,53)
Dissent	-.240	.147	-.236				
Mixed_Gender_Dummy	-1.313	1.620	-.129				
Male_Dominated_Dummy	-.214	1.801	-.019				
Step 2				.146	.092	2.733[†]	(2,51)
Dissent	-.501	.229	-.492[*]				
Mixed_Gender_Dummy	-2.053	1.603	-.202				
Male_Dominated_Dummy	-.062	1.793	-.005				
Dissent[*]Mixed_Gender_Dummy	.173	.322	.102				
Dissent[*]Male_Dominated_Dummy	.864	.378	.384[*]				

Note. [†]$p<.10$. [*]$p<.05$. [**]$p<.001$.

Table 25

Results of Stepwise Regression Examining Effects of Interrupting and Group Composition on Expected Backlash

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.017	.017	0.312	(3,53)
Interrupt	26.948	34.152	.108				
Mixed_Gender_Dummy	-.138	.369	-.057				
Male_Dominated_Dummy	.111	.416	.041				
Step 2				.142	.125	3.711*	(2,51)
Interrupt	151.100	60.341	.605*				
Mixed_Gender_Dummy	-.168	.352	-.070				
Male_Dominated_Dummy	.043	.397	.016				
Interrupt*Mixed_Gender_Dummy	-140.809	77.048	-.382†				
Interrupt*Male_Dominated_Dummy	-238.477	88.884	-.474*				

Note. †$p<.10$. *$p<.05$. **$p<.001$.

Table 26

Results of Stepwise Regression Examining Effects of Interrupting and Group Composition on Expected Relationality Evaluations

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.042	.042	0.765	(3,53)
Interrupt	-26.671	28.674	-.126				
Mixed_Gender_Dummy	.333	.310	.163				
Male_Dominated_Dummy	-.042	.349	-.018				
Step 2				.178	.137	4.242[*]	(2,51)
Interrupt	-137.534	50.208	-.647[**]				
Mixed_Gender_Dummy	.360	.293	.176				
Male_Dominated_Dummy	.018	.330	.008				
Interrupt*Mixed_Gender_Dummy	126.332	64.110	.404[†]				
Interrupt*Male_Dominated_Dummy	211.847	73.958	.496[**]				

Note. [†]*p*<.10. [*]*p*<.05. [**]*p*<.001.

Table 27

Results of Stepwise Regression Examining Effects of Interrupting and Group Composition on Empowerment

Predictor	*B*	*SE B*	*β*	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.016	.016	0.285	(3,53)
Interrupt	-27.803	49.842	-.076				
Mixed_Gender_Dummy	-.089	.539	-.025				
Male_Dominated_Dummy	-.439	.607	-.110				
Step 2				.214	.198	6.411*	(2,51)
Interrupt	-256.648	84.255	-.704**				
Mixed_Gender_Dummy	-.034	.491	-.010				
Male_Dominated_Dummy	-.315	.554	-.079				
Interrupt*Mixed_Gender_Dummy	260.963	107.583	.486*				
Interrupt*Male_Dominated_Dummy	436.953	124.110	.596**				

Note. [†]*p*<.10. [*]*p*<.05. [**]*p*<.001.

Table 28

Results of Stepwise Regression Examining Effects of Negating and Group Composition on Expected Similarity Evaluations

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	*(dfs)*
Step 1				.020	.020	0.356	(3,53)
Negate	-.127	.126	-.142				
Mixed_Gender_Dummy	.008	.296	.004				
Male_Dominated_Dummy	.005	.328	.002				
Step 2				.121	.101	2.927[†]	(2,51)
Negate	-.577	.300	-.645[†]				
Mixed_Gender_Dummy	-.220	.303	-.117				
Male_Dominated_Dummy	.186	.370	.088				
Negate[*]Mixed_Gender_Dummy	.644	.333	.638[†]				
Negate[*]Male_Dominated_Dummy	.012	.442	.006				

Note. [†]*p*<.10. [*]*p*<.05. [**]*p*<.001.

Chapter 1: Introduction and Overview

Women compose nearly half of the United States workforce and further, over 40% of employed women work in management and professional occupations (United States Department of Labor, 2010a). Despite the progress working women have made over the past decades, they still face several barriers to professional success. Many gender scholars describe women's career trajectories using the metaphor of a labyrinth (e.g. Eagly & Carli, 2007) or obstacle course (Ragins & Sundstrom, 1989), fraught with hurdles along the way. Others compare the way women navigate organizations to walking on a tightrope (Brescoll & Moss-Racusin, 2007), highlighting the pressures that women must balance throughout their careers. Evidence of the negative impact of such constraints is pervasive. For example, women are extremely underrepresented in top management positions; in fact, only 6% of CEOs of Fortune 500 companies are women (Eagly & Carli, 2007). Women's careers also progress more slowly than men's, as they receive fewer and less frequent promotions (Ibarra, Carter, & Silva, 2010; Williams, 1992). In addition, the wage gap between men and women's earnings persists, with women earning approximately 81 cents for every dollar earned by men (United States Department of Labor, 2010b).

Several barriers to women's advancement in organizations have been identified, such as exclusion from organizational networks (Ibarra, 1993), a lack of mentoring relationships (Ragins & Cotton, 1996), and sex-typed career placement and tracking (Ragins & Sundstrom, 1989). Despite the large body of work examining constraints women face in organizations, one factor that remains unexplored is women's expression of dissent, defined as *the expression of opinions that challenge those held by the majority*

(De Dreu & Beersma, 2001). This is important given that the expression of diverse points of view is touted as critical to organizational success (Perlow & Williams, 2003). A large body of work extols the virtues of speaking up, such as increased creativity (Nemeth & Kwan, 1985), innovation (Van Dyne & Saavadra, 1996), learning (Beer & Eisenstat, 2000), and improved decision-making in groups (Peterson, Owens, Tetlock, Fan & Martorana, 1998), as well as increased perceptions of justice (Bies & Shapiro, 1988) and satisfaction (Van Dyne, Cummings, & McLean-Parks, 1995) for individuals.

Given the virtues of dissent, employees should be expected to speak up without hesitation. In reality, however, there are costs associated with raising voice in organizations. For example, classic social psychological work shows that individuals who express opposing views are met with resistance and punishment (Schachter, 1951) and more recent work shows that employees who speak up incur both social and economic costs (Cortina & Magley, 2003; Detert & Edmonson, 2005).

To date, there has been little research on whether and why certain individuals—in this case, women—incur even greater penalties for dissenting than do others. I argue that not all who dissent are treated equally. In particular, I propose that women who dissent incur greater penalties than men due to the mismatch between feminine and low-status stereotypes and the masculine and dominant nature of dissent. That is, dissent is highly imbued with notions of masculinity and dominance that are incompatible with the feminine stereotype (Rudman & Glick, 2001). This discrepancy suggests that gender may play an important role in the expression of dissent and backlash when it occurs.

Further, I argue that the social context might moderate backlash incurred by dissenting women, making the consequences of dissent more acute under certain

circumstances, and in particular in different group composition contexts (e.g., male-dominated, female-dominated, or mixed gender groups). I also the notion that women are calibrated to these backlash realities, which constrains their expression of dissent, and ultimately results in downstream consequences for both the individual and the organization. The goal of the current work is to explore the gender dynamics underlying the expression of dissent within organizations and their effects on both women and the organizations in which they are embedded.

This dissertation makes a number of theoretical and practical contributions. Theoretically, it is of the first work to examine how dissent is socially constructed along gender lines. While existing literature examines how individual differences (e.g., personality; De Dreu, De Vries, Franssen, & Atlink, 2000) and contextual variables (e.g., organizational culture; De Dreu & West, 2001) influence dissent, there is no work to date, to my knowledge, on how the social context moderates reactions to male and female dissenters. This work will also integrate research from social psychology on stereotyping and backlash with organizational research, forging further connections between these fields. From a practical point of view, identifying the conditions under which women are penalized for dissenting is critical for further understanding barriers women face in organizations. That is, the silencing of women's voices in organizations has far-reaching effects. For example, silence has important implications in terms of women's career development. Withholding voice constrains the span of women's influence in organizations, thereby precluding them from several of the benefits allotted to more prominent individuals. Further, organizations may suffer by not capitalizing on women's contributions in terms of critical knowledge, which translates into major compromises in

terms of group decision-making and performance. These effects compound over time, leading to severe negative consequences for both women and the organizations in which they work. The knowledge gleaned from this dissertation may help women and organizations to understand this implicit form of bias and to help initiate change efforts to reduce the backlash that women experience in voicing dissent.

In what follows, I first provide a review of extant literature on dissent and related constructs as well an introduction to the gender dynamics of dissent. In this section, I discuss two main factors underlying penalties directed toward dissenting women– gender stereotypes (Eagly, 1987) and status expectations (Berger & Conner, 1969). Dissent always occurs in a certain social context, and thus, subsequently, I introduce an examination of how the gender composition of groups in which dissent occurs affects backlash against women who dissent. I discuss how different types of backlash toward dissenting women may manifest in male-dominated, female-dominated, and mixed-gender groups. Next, I examine women's awareness of the penalties incurred by dissenters, focusing on how this awareness translates into actual dissent behavior and its implications for group performance. This approach provides a full circle examination of gender dynamics and dissent processes (cf. Bowles, Babcock, & Lai, 2007; Brescoll, 2012). By full circle, I refer to the dynamics wherein women incur more severe consequences for dissenting in certain social contexts, and furthermore, anticipate these consequences, which ultimately constrains their likelihood to dissent. Finally, I discuss four studies that, together, provide a systematic examination of the phenomena discussed above. Study 1 examines main effects of dissenter gender on backlash toward dissenters while Study 2 examines how the social context moderates backlash toward female

dissenters versus male dissenters. Study 3 extends this by exploring women's awareness of the penalties they might incur by dissenting. Finally, Study 4 examines women's dissent behavior in actual groups of varying gender composition.

Chapter 2: Review of Dissent and Relevant Literature

Dissent involves publicly advocating and pursuing beliefs, attitudes, ideas, procedures, and policies that challenge the position or perspective assumed by the majority (De Dreu & De Vries, 1997). Dissent can take many forms, such as an individual butting heads with group members over how to best approach a task or an employee disagreeing with management regarding existing performance management practices. Below, I provide a review of the literature examining dissent and related constructs.

Early Research on Dissent

Research on dissent and closely related constructs such as voice, silence, issue selling, and majority versus minority influence have a long history within social and organizational psychology. Asch's (1956) seminal conformity studies first demonstrated the compliance pressures created by a social majority. Later, scholars extended research on conformity to an examination of groupthink, the tendency for group members' strivings for unanimity to override their motivation to appraise alternative courses of action (Janis, 1972). For example, Janis's (1972) studies on United States foreign policy disasters (e.g., the Bay of Pigs invasion) brought attention to the potentially catastrophic consequences of an unquestioned acceptance of the majority viewpoint. Many of the basic processes behind groupthink have since been identified. Groups are prone to strong conformity and concurrence-seeking pressures (e.g., Marques & Yzerbyt, 1988; Schachter, 1951), which contribute to the acceptance of the majority perspective as correct, even in the case that this perspective is flawed. In the absence of dissenting opinions, the majority perspective persists and can lead to decision-making fallacies.

From research on majority influence (i.e., conformity) grew an examination of minority influence (e.g., Moscovici, 1976). In a widely cited piece, Nemeth (1986) analyzed the means through which the expression of minority opinions leads to influence in groups. Nemeth (1986) proposed that dissenting group members stimulate divergent thinking and prompt group members to consider multiple perspectives. That is, while majority viewpoints induce convergent thinking (i.e., considering the issue from the *majority* viewpoint), minority viewpoints challenge members to approach the issue from an alternative perspective. Further, Nemeth (1986) argued that while majority influence occurs at the manifest level, minority influence occurs at a latent level. That is, individuals may quietly begin to adopt minority points of view long before expressing their support of these opinions. More recent literature has explored topics such as the effects of minority in influence on virtual group processes (e.g., Bazarova, Walther, & McLeod, 2012), group loyalty (e.g., Shaffer & Prislin, 2011), and terrorism (Chen & Kruglanski, 2009).

Research on Dissent in Organizations

Complementing the long line of dissent-related research in social psychology is a large body of work examining the role of dissent in organizations, specifically. Work on the role of voice in organizations can be traced back to Hirschman's (1970) exit-loyalty-voice framework in which he proposed that dissatisfied employees have two options, exit or voice. While exit involves leaving the organization, voice refers to attempts to improve one's situation through communication of complaints. Since then, work on voice has examined its antecedents in terms of both person-centered (e.g., satisfaction with one's

work) and situational (e.g., group size) variables (LePine & Van Dyne, 1998) as well as its consequences (e.g., perceptions of justice; Bies & Shapiro, 1988).

Research on minority influence in organizations is highly relevant and continues to grow due in part to an increasingly diverse workforce (De Dreu & Beersma, 2001). Differences between employees in terms of demographic, information, and normative backgrounds brings an array of perspectives, many of which may differ from majority viewpoints. As such, an understanding of minority influence in organizations is becoming increasingly important.

Much of the work on the expression of minority perspectives in organizations examines factors that affect the *extent* of minority influence. For example, work from De Vries, De Dreu, Gordijn, and Schuurman (1996) focused on behavioral style, the issue under debate, and characteristics of the minority faction as predictors of minority influence. They showed that minorities exerted the most influence when they delivered a consistent and detailed message, when the issue was important to majority members, and when the minority faction was an ingroup (as opposed to an outgroup). Other work demonstrates that contextual variables, such as an environment that encourages the expression of dissenting points of view, also contribute to minority influence (De Dreu & West, 2001).

An additional relevant body of work focuses on issue selling, defined as "individuals' behaviors that are directed toward affecting others' attention to and understanding of issues" (Dutton & Ashford, 1993, p. 398). Dutton and Ashford (1993) note that issue selling, like dissent, involves expression of a difference of opinion- namely that one party believes an issue merits greater attention than it currently receives.

In this sense, issue selling is also heavily geared toward influencing others and is critical in the beginning stages of organizational decision-making. While early work examined individuals' decision of whether or not to sell an issue, more recent work has focused on *how* individuals go about selling issues. For example, Dutton and Ashford (2003) identified multiple approaches that women used for selling gender equity issues, such as involving others, face-based versus valence-based (i.e., positive versus negative) framing, and controlling one's emotions.

Given the importance of their consequences, many scholars have been interested in the conditions under which people will actually express dissenting opinions. Individual, group, and broader contextual factors interact in complex ways to predict the likelihood of speaking up (see Morrison, 2011a, for a comprehensive model of voice). On a macro level, national culture affects the expression of voice such that people in individualistic cultures are more likely to raise voice than those in collectivistic cultures (Bond & Smith, 1996; Goncalo & Staw, 2006). Collectivistic cultures place an emphasis on maintaining group harmony and not standing out. As such, dissenting perspectives are heavily discouraged. De Dreu et al. (2000) showed that individual level personality antecedents (i.e., extraversion), contextual factors (i.e., work pressures, intergroup innovation), and group process factors (i.e., past neglect, goal clarity, and opportunities for communication) were related to willingness to dissent. Detert and Edmonson (2005) identified protection from powerful individuals as one facilitator of expressing dissent, and numerous scholars have identified support and openness from management (i.e., psychological safety) as important facilitators of speaking up (e.g., Liang, Farh, & Fahr, 2012; Morrison, Wheeler-Smith, & Kamdar, 2011; Schilit & Lock, 1982). Beliefs about

the consequences of speaking up are similarly important, as Barry and Shapiro (2000) identified expectations of affecting change or improvement as a predictor of voice. Combining multiple elements, Dutton and Ashford (1993) showed that people who believe they are a) central to the communication network of their organization, b) nonsubstitutable, and c) viewed as credible in the eyes of top management are especially likely to speak up. Most recently, Morrison (2011b) examined how group membership (i.e., ingroup or outgroup membership) and psychological standing with reference to the discussion topic (i.e., expertise and ownership) influenced the expression of voice.

Work on the role of conformity, voice, minority influence, and issue selling in organizations has informed our understanding of dissent. Notable contributions focus on the antecedents, consequences, and moderators of dissent (see De Dreu & Beersma, 2001, for a review). Spanning across these literatures, one trend that emerges clearly from this literature is that dissent is often revered as a positive force in organizations, a phenomenon I examine next.

Positive consequences of dissent. Dissent and related constructs have been linked to a myriad of positive consequences in organizations, such as improved decision-making (e.g., Dooley & Fryxell, 1999) and group learning (Beer & Eisenstat, 2000), higher levels of cognitive complexity in majority group members (Gruenfeld, Thomas-Hunt, & Kim, 1998), and increased creativity, originality, and innovation (e.g., Nemeth & Kwan, 1985; Van Dyne & Saavedra, 1996). Of these consequences, particular attention has been paid to creativity and innovation. For example, Van Dyne & Saavedra (1996) examined natural workgroups for 10 weeks. Participants included 126 students who completed tasks in groups of 5 as part of regular coursework. Half of the groups included

a dissenting confederate, while the other half did not. The group tasks involved analyzing two ambiguous cases and generating recommendations for implementation. The ambiguous nature of the cases presented the potential for both conflict and creative solutions posed by group members. As predicted, groups with a dissenting member demonstrated more diverting thinking and produced more original ideas than did control groups. In a more recent study, De Dreu and West (2001) demonstrated that minority dissent predicted innovation in teams, but only when there was a high degree of participation in decision making.

Similarly, issue selling can result in several positive consequences for both the individual and the organization. Successfully selling issues has critical career implications for the individual, as research on change agents and entrepreneurs shows that these individuals are effective in large part due to their ability to promote strategic issues (Dutton & Ashford, 1993). Further, issue selling may provide individuals with access to new forums and networks (Bryson & Crosby, 1992), thereby providing more opportunities for professional development. Issue selling has important implications for organizations to the extent that it directs the attention of management toward critical enablers or inhibiters of performance. In addition, speaking up has the potential to help one cultivate a reputation as a "change agent" who garners the admiration of supporters. Members who are successful in making themselves heard, especially in the face of adversity, are perceived as courageous and are applauded for their willingness to take a stand (Bass & Riggio, 2006). This lends itself to increased social influence and may pave the way to achieving additional types of power (Kanter, 1977).

The positive effects of dissent in organizations are complimented by the negative effects of silence, or the withholding of voice (Detert & Edmonson, 2005). As is the case with groupthink, silence constrains the quality of group decisions and impedes innovation. Echoing Janis's (1972) findings, Hackman and Morris (1975) argued that groups often move to consensus prematurely, in part due to the suppression and dismissal of minority opinions and that this ultimately results in lower group performance. Many organizations now intentionally incorporate a "devil's advocate" (a group member who adopts and advocates a dissenting perspective; Schwenk & Cosier, 1980) in groups to ensure the expression of dissent.

At the individual level, silence is linked to employee withdrawal behaviors and dissatisfaction, partly because individuals often remain silent if they suspect that their voice will go unheard (Morrison and Milliken, 2000; Perlow & Repenning, 2009). In addition, employees may suffer in silence under difficult working circumstances if they fail to speak up (Milliken, Morrison, & Hewlin, 2003). Further, once norms of silence develop in organizations, they can be hard to change. Noelle-Neumann's (1974) notion of 'spirals of silence' highlights the self-reinforcing nature of silence. When individuals hold a minority viewpoint, they often remain silent for fear of negative consequences. Without opposition, majority viewpoints become increasingly dominant, thereby making dissent even more risky as time goes on and further reinforcing norms of silence.

Despite its numerous benefits, scholars and practitioners have also noted the negative consequences of voicing dissent, many of which are directed at the dissenter him- or herself.

Negative consequences of dissent. By definition, dissent is a form of deviance as it involves departing from standards accepted by the majority. When an individual dissents in a group, he or she deviates from group norms- a behavior that is usually met with negative reactions (Schachter, 1951). Mannetti, Levine, Pierro, and Kruglanski (2010) note that individuals who defect from the group disrupt effective group functioning by threatening three motives. One is the desire to attain a shared reality among group members (Festinger, 1950). Another is the desire to achieve collective goals that require coordination between group members (i.e., group locomotion, Festinger, 1950). The third is members' desire to have a positive social identity (Marques, Abrams, Paez, & Hogg, 2001; Marques, Yzerbyt, & Leyens, 1988). When an individual deviates from group norms, he or she may jeopardize one or all of these motives, hence placing both the self and the group at risk. Not surprisingly, dissenters are largely disliked by other group members (Nemeth & Chiles, 1988). Negative attitudes toward dissenters translate into intragroup conflict, which can escalate to the point of splitting into hostile factions (Peterson et al., 1998). As such, dissenters are often labeled as uncooperative and blamed for disrupting social harmony (Schweiger, Sandberg, & Rechner, 1989).

Majority members tend to respond by dissent by attempting to neutralize it, which generally leads to negative consequences for the dissenter. Group members may pressure the dissenter to remain silent, to change his or her opinion, or to leave the group entirely (De Dreu & Beersma, 2001; Levine, 1980). More extreme tactics include threatening, attempting to delegitimize, ostracizing, or otherwise harming the dissenter (Frost & Egri, 1991).

For example, Cortina and Magley (2003) examined consequences incurred by employees who raised voice after experiencing interpersonal mistreatment. This is a type of whistleblowing, or employees' disclosure of perceived wrongdoing in an organization (Victor, Trevino, & Shapiro, 1993). Employees who "blew the whistle" on mistreatment were often subjected to retaliation by the original transgressor (e.g., being excluded by others, blamed for the situation, labeled a 'troublemaker'). These findings are consistent with other work demonstrating that employees who claim discrimination (a form of whistleblowing) incur consequences such as undeserved negative performance ratings and increased workload (Goltz, 2005; Klaas & DeNisi, 1989). Further, Cortina and Magley (2003) found that other organizational members distanced themselves from the victim, effectively isolating the individual. The authors explained that colleagues fear that they will receive punishment for supporting an employee who challenges authority and therefore withdraw from that individual.

Along these lines, Detert and Edmondson (2005) introduced the construct of *risky voice opportunities* (RVOs), as "situations in which an individual is aware of an opportunity to speak up with a work-relevant observation, concern, idea or question and at the same time believes that speaking up may lead to negative consequences for him or her" (p. 2). In Detert and Edmondson's (2005) research, employees expressed concerns regarding interpersonal mistreatment, bonuses, and career progression should they speak up. More recently, Detert and Edmonson (2011) examined *implicit voice theories,* taken-for-granted beliefs about when and why speaking up at work is risky or inappropriate, arguing that these beliefs explain the pervasiveness of workplace silence. Several other studies cite fear of negative consequences as reasons underlying employee silence (De

Dreu et al., 2000; Leslie & Gelfand, 2008; Nemeth & Goncalo, 2011), thus indicating that employees are in fact acutely aware of the dangers of expressing dissent. In sum, dissenting perspectives clearly contribute to organizational success, but often does so at the expense of the very people who dissent.

Research on dissent has been conducted under the broad umbrella of minority influence, voice, issue selling, and silence. However, these topics are all looking at a similar phenomenon- the expression of opinions that challenge the perspective held by the majority. These research traditions share central questions regarding how and when individuals pose dissenting perspectives, how this impacts individuals and groups, and what moderates dissent processes and effects. Despite the breadth of these literatures, an examination of gender dynamics in dissent remains largely absent and studies examining demographics and voice yield inconsistent findings (e.g., Detert & Burris, 2007; Miceli et al., 2008; Young, 1978). This dissertation aims to begin to fill this dearth in the literature.

Chapter 3: Dissent as Gendered Behavior

Gender differences have been demonstrated across a wide array of social interaction processes and there is reason to believe that these differences extend to the phenomenon of dissent. However, to date, the gender dynamics of dissent remain largely unexplored. In this chapter, I examine gender differences in dissent processes, focusing specifically on consequences directed toward male and female dissenters. In doing so, I also explore the potential underlying mechanisms that may contribute to increased penalties for dissenting women.

Dissent, as a behavior, has explicit gender and status connotations. Dissent is a highly masculine behavior, as traditional forms of dissenting entail being assertive, taking a stand, and defending one's beliefs (terms consistent with Bem's [1974] masculine sex role inventory). In terms of status, expressing dissent signals dominance, as challenging others' opinions or beliefs is a behavior reserved for high-status actors (Berger & Conner, 1969). Focusing on these two characteristics of dissent (its masculine and dominant nature), I discuss how the violation of *gender stereotypes* and *status expectations* account for increased backlash toward dissenting women. Before proceeding, it should be noted that these mechanisms are not mutually exclusive. That is, notions of masculinity are highly related to notions of dominance (Bowles, Babcock, & Lai, 2007; Ridgeway, 2001). In fact, some argue that certain components of gender stereotypes (e.g., communality and agency) arose from the status differences between men and women (Conway & Vartanian, 2000). Although gender and status stereotypes are inextricably linked, each has distinct components that operate concurrently to affect gender and dissent dynamics.

Gender Stereotypes

Eagly's (1987) social role theory proposes that the position of men and women in social structure is largely a function of the distribution of labor between the sexes, with men traditionally in the breadwinner role and women traditionally in the caretaker role. Consequently, men's and women's respective positions form the basis for gender roles, a type of schema entailing cognitive and evaluative beliefs shared by members of a social system. Roles (in which gender stereotypes are subsumed) are formed via an individual's direct observation and experience as well as by socialization (Eagly, Wood, & Diekema, 2000) and describe what sort of behavior and traits are expected of certain types of individuals. Given that gender roles are based primarily on men and women's engagement in labor force, the male gender role tends to incorporate agentic behaviors and traits (e.g., being assertive, aggressive) while the female gender role tends to incorporate communal behaviors and traits (e.g., being caring, sensitive). The stark differences between communal and agentic traits often leads to the perception that an individual who possesses one set of traits necessarily lacks the other (i.e., if one is agentic, they are not communal)- this assumption underlies much of the prejudice directed toward women in organizational contexts (e.g., Bowles, Babcock & Lai, 2007; Heilman & Okimoto, 2007, 2008).

Further, gender stereotypes encompass two types of norms, *descriptive* and *injunctive* (akin to descriptive and prescriptive stereotypes; Cialdini & Trost, 1998). While *descriptive* norms concern what members of a group *actually* do or what traits they *actually* possess, *injunctive* norms concern what members *ought* to do or what they *ought*

to possess. As Heilman, Wallen, Fuchs, and Tamkins (2004) note, there is often overlap in the content of descriptive and injunctive norms.

The prescriptive nature of gender roles facilitates their adoption by individuals. Over time, individuals become aware of the consequences of role-congruent and -incongruent behavior. More specifically, while confirming gender roles leads to positive (or at least neutral) reactions from others, violating gender roles elicits unfavorable reactions and results in a range of penalties for the deviant. The desire to avoid penalties coupled with a need for social approval reinforces gender-congruent behavior. For example, Bem's (1976) early laboratory work on gender demonstrated that participants avoided engaging in cross-sex behavior (e.g., men engaging in feminine behavior), even when offered substantial compensation to do so. Furthermore, when participants did engage in cross-sex activities (e.g., men who performed the task of ironing cloth napkins), they reported increased psychological discomfort and decreased self-esteem. In sum, gender stereotypes affect both the individual's choice to engage in certain behavior, as well as others' evaluation of and behavior toward the individual.

As mentioned, deviations from prescribed behaviors are met with negative reactions, often referred to as backlash. More formally, backlash effects are defined as *social and economic reprisals for behaving counterstereotypically* (Rudman, 1998). Indeed, a large literature shows the pervasiveness of backlash against women who violate gender norms in several different processes and areas including negotiation (Bowles, Babcock, & Lai, 2007), selection (Rudman, 1998), and leadership (Rudman and Glick 1998, 2001), among many others.

For example, Rudman (1998) identified self-promotion as an important competitive tactic when applying for jobs, as it is designed to augment one's status and attractiveness to the organization by informing the potential employer of one's accomplishments, strengths, and talents. However, self-promoting behavior contrasts with feminine expectations of modesty and other- (as opposed to self-) concern. Rudman (1998) found that self-promoting women were evaluated as less competent, less socially attractive, and subsequently less hireable than equally qualified (and self-promoting) male candidates.

Further, the act of behaving in a masculine way not only produces the perception that a woman is doing something she *should not* (i.e., act like a man), but also that she is failing to do something she *should* (i.e., act like a woman). Heilman and Okimoto (2007) labeled one form of this phenomenon the *implied communality deficit*- the automatic assumption that a woman who possesses agentic traits must *lack* communal traits. This is especially relevant in the case of dissent because while voicing one's opinion and standing one's ground are clearly agentic, the deviance from group norms inherent in dissent makes it a clearly noncommunal behavior. In addition, dissent disrupts interpersonal harmony, providing further evidence of a dissenter's communality deficits. Therefore, it follows that that female dissenters should be perceived as lacking communality and thereby, relationally impaired. Numerous studies have demonstrated backlash toward women who are perceived to be lacking in communality in areas such as organizational citizenship behavior (Heilman & Chen, 2005), leadership (Heilman, Block, & Martell, 1995) and tasks in which men typically succeed (Parks-Stamm, Heilman, & Hearns, 2008).

For example, Heilman and Chen (2005) examined reactions to men's and women's involvement in altruistic citizenship behavior (ACB), a subdimension of organizational citizenship behavior. Altruism has been referred to as "helping behavior" by some, tying it to female role prescriptions, of which being a helper is central part. While women are expected to display altruistic behavior by expressing concern for and nurturing others, men are not. Hence, Heilman and Chen (2005) proposed that engaging in ACBs should result in differential reactions to men and women based on their link to male and female stereotypes. More specifically, two studies demonstrated that while engaging in ACBs (e.g., doing extra work to help a coworker meet a deadline) resulted in enhanced performance evaluations and reward recommendations for men, it had no effect on women. Moreover, *failing to engage* in ACBs resulted in poorer performance evaluations and fewer reward recommendations for women, but not men. The authors surmised that results might indicate that altruism is regarded as a role *requirement* for women, but not for men. To test this possibility, MBA students were given information about a job, including information about a man or woman who was currently holding that job, and asked to indicate to what extent certain behaviors were required or optional for the job. As predicted, altruistic citizenship behaviors were regarded as more required and less optional when a woman was depicted as the job-holder. Increased expectations of communal behavior for women contributes to a "twice the work, half the credit" type of reward system.

An additional body of literature examines the buffering effects of *communality indicators*- factors that convey information about a woman's warmth and sensitivity to others. Heilman and Okimoto (2007) proposed that providing cues regarding

communality might help to override the implied communality deficit that underlies so much of the backlash directed at agentic women. To test this possibility, the authors examined evaluations of male and female managers for whom information conveying a communal orientation was or was not provided (a description of the manager as caring and sensitive). As predicted, communality information buffered successful women from interpersonal penalties in two studies. In a third study, Heilman and Okimoto (2007) discussed the possibility that motherhood might convey information regarding communality, due to the strong association between motherly duties (e.g., caretaking, comforting) and communal traits. Findings confirmed this notion. Similarly, Amanatuallah and Morris (2010) found that women who negotiated on behalf of *another* (again an indicator of communality) were immune from the social repercussions directed toward women who negotiated on behalf of the self. These studies speak to the importance of perceptions of communality for the evaluation of women.

Finally, Bowles, Babcock, and Lai (2007) discuss the masculine stereotype as having two distinct components: competence and dominance. Competence entails being active and independent, terms with which many modern women describe themselves (Spence & Buckner, 2000) and which are generally unrelated to status. However, Phelan, Moss-Racusin, and Rudman (2008) and others have demonstrated that competent women are also perceived as cold, largely due to the inverse association of agentic behaviors with relational attributes.

To summarize, gender stereotypes are expected to result in increased backlash toward dissenting women due to the incompatibility of the masculine nature of dissenting with the female stereotype. I now turn to the role of status expectations.

Status Expectations

Complementing the expectations based on gender stereotypes, status-based expectations are also expected to play a crucial important role in the evaluation of dissenting women. Gender is considered a diffuse status characteristic (Ridgeway, 2001), which provides information regarding individuals' position in a social hierarchy in which men are generally ascribed higher status than women (Eagly & Wood, 1982). For the purposes of this work, I adopt Magee and Galinsky's (2008) definition of status as the extent to which an individual is respected or admired by others.

Different sets of expectations are applied to low and high status individuals. For example, lower status individuals are expected to behave in a deferential manner, while higher status individuals are granted permission to be assertive and forceful. Moreover, lower status individuals are held to a higher communality standard than are high status individuals, who are free to act in a more self-serving manner (Conway, 1996). By its very nature, dissent involves being assertive and standing up for one's one beliefs, both of which are behaviors associated with high status. As such, dissenting women they may be perceived as seeking status to which they do not have a legitimate right and may suffer harsh consequences as a result. People expect one another to engage in power and prestige behaviors that are appropriate for their status rank (Ridgeway & Berger, 1986). When an individual commits a status violation (e.g., an entry-level employee demanding a corner office), they threaten the social order of the group. As individuals are motivated to maintain the social order (Jost & Banaji, 1994), they respond by sanctioning the status violator.

Indeed, individuals who are perceived as claiming too much status (i.e., low status individuals engaging in behavior typical of high status individuals) are subject to numerous social consequences (Anderson et al., 2006; Anderson, Ames, & Gosling, 2008; Magee & Galinsky, 2008). Anderson et al. (2006) examined *status self-enhancers,* who they defined as "individuals who believe they possess higher status in a group than is actually accorded to them by the group" (p. 1094). Not only are such self-enhancers seen as demanding privileges they do not deserve, but they are also perceived as power hungry and are generally disliked by group members. The authors conducted a longitudinal study of small groups, who began as relative strangers and interacted over the course of 4 weeks. The groups engaged in a collaborative task (to allow status differences to emerge), a getting-to-know-you task (to develop interpersonal ties), a competitive task (to allow for conflict), and finally, a fun task (to alleviate any negative feelings associated with the study). Results showed that individuals who engaged in status-enhancing behaviors (e.g., asserting their opinions forcefully, making verbal commands and directives to others) were less liked and less accepted by the group. A follow-up study demonstrated that groups with self-enhancers experienced more conflict and lower performance. The authors surmised that group members who are in agreement with others regarding their status cohere better as a group, while those who disagree incite conflict.

Other work has examined how status constrains women's behavior, specifically, in organizational contexts, such as Bowles, Babcock, and Lai's (2007) study on compensation negotiations. The authors labeled initiating negotiation as an inherently masculine behavior and moreover, a display of dominance. Given that such displays of

dominance are reserved solely for high-status actors, women's demonstration of such

behaviors serve as a direct challenge to the gender status hierarchy (Rudman & Glick,

2001), thereby placing them at great risk of backlash. In Study 1 of Bowles, Babcock,

and Lai's (2007) work, participants were asked to evaluate a male or female employee

being considered for an internal promotion. During a mock interview, the employee made

no additional requests, made moderate additional requests, or made strong additional

requests (e.g., higher salary, end of the year bonus, etc.) of the employer. Results showed

that women who initiated negotiation were perceived as less hireable, 'overly

demanding,' and 'not nice,' to a greater extent than men who did the same. Carli and

Eagly's (1999) work demonstrated a similar effect with reference to gender differences in

influence tactics. While influence styles consistent with high status (i.e., assertive and

confident) were viewed as legitimate when displayed by a man, the same influence styles

were perceived as less legitimate and acceptable when displayed by a woman.

Especially relevant to the current work is research on social power and volubility,

or the total amount of time spent talking (Brescoll, 2012). Social power pertains to an

individual's ability to influence and control the behavior of others (e.g., Galinsky,

Gruenfeld, and Magee, 2003), which is closely related to the definition of status

employed here (the extent to which an individual is respected or admired by others;

Magee & Galinsky, 2008). High power individuals tend to speak more in groups than

their low power counterparts, as talking time indicates dominance (e.g., Hall, 2006;

Leaper & Ayres, 2007; Schmid Mast, 2001). In a recent study, Brescoll (2012) explored

the interaction of power and gender on volubility in the U.S. Senate, showing that while

power positively predicted volubility for male senators, power and volubility were

unrelated for female senators. Brescoll (2012) explained that high power women may constrain their speaking time (thereby speaking the same amount as low power women) for fear of incurring backlash for speaking too much. The author went on to show that this fear was warranted in a follow-up study in which both male and female participants evaluated highly voluble female CEO as less competent and suitable for leadership than a highly voluble male CEO.

Other work shows that not only are low status actors punished for engaging in out-of-status behavior, but they are also punished especially harshly for other types deviance. Consistent with Hollander's (1958) idiosyncrasy credit theory, high status individuals are granted more latitude for deviant behavior, while greater conformity to norms is demanded of lower status individuals (e.g., Bowles & Gelfand, 2010). As Bowles and Gelfand (2010) note, sociologists have long argued that labeling "deviants" provides one means for high-status individuals to maintain dominance over others (Hollander, 1958; Homans, 1950). In an examination of this phenomenon, Bowles and Gelfand (2010) examined evaluations of low status (women, African-Americans) and high status (men, Caucasians) individuals who committed deviant acts (e.g., using company money to mail personal letters and packages, lying about hours worked, stealing equipment or merchandise). As predicted, when committed by lower status individuals, deviant acts were rated as more serious and resulted in greater punishment than when committed by higher status individuals, and high status individuals tended to let other high status individuals "off the hook" for similar deviant acts. This work demonstrates that lower status exacerbates the negative effects of deviance. As mentioned, dissenting

inherently involves deviance from group norms. Therefore, low status individuals like women who dissent should be subject to especially severe punishment.

To summarize, existing research on gender stereotypes and status expectations show that women incur penalties for a wide range of behavior in organizations, from self-promoting in interviews (Rudman, 1998) to negotiating too assertively (Bowles, Babcock, & Lai, 2007) to failing to engage in altruistic citizenship behaviors (Heilman & Chen, 2005). To date, there has been little work on how these processes affect women who express dissent. Based on these literatures, I predict a main effect such that women will receive greater penalties for dissenting than will men. This is the first hypothesis in the current work (tested in Studies 1 and 2):

Hypothesis 1: Women who dissent will receive greater penalties than men who dissent.

The Role of the Social Context

However, individuals in organizations do not dissent within a vacuum, but rather within a broader social system. Therefore, it is critical to explore the social contextual factors that might moderate dissent dynamics. This work focuses on the social construction of the dissenter as a function of group gender composition (i.e., male-dominated, female-dominated, and mixed gender groups). More specifically, I examine how gender composition of the group affects women's willingness to dissent, how they dissent, as well as the penalties incurred by those who dissent. By doing so, I ask the question, are the problems that plague female dissenters more acute in certain contexts? As I discuss below, I expect that women who dissent in male- and female-dominated groups will receive more backlash as compared to mixed-sex groups.

It should be acknowledged that several other variables might moderate women's willingness to dissent, such as status (e.g., female CEOs versus administrative staff), physical attractiveness, or organizational demography (e.g., male-dominated versus female-dominated organizations), among many others. This dissertation focuses on group gender composition specifically, but I will revisit additional moderators and examine how they might affect women's dissent behavior.

Further, I argue that different mechanisms might underlie the gender dynamics operating when women dissent in male-dominated, female-dominated, and mixed groups. While I expect that gender stereotypes and status expectations will operate across groups in the ways described above, I argue that the social context further nuances the expectations to which dissenting women are held. That is, the presence of a male or female majority in groups creates additional pressures that affect perceptions of reactions to women who dissent. This work therefore proposes a model in which the social context (group gender composition) moderates the expectations to which women are held, the violation of which results in backlash.

Specifically, I propose that in male-dominated groups, *status expectations* become more salient when evaluating a female dissenter. While gender stereotypes are still expected to play a role in male-dominated group members' evaluation of dissenting women, I argue that male-dominated group members will weigh status violations more heavily when evaluating dissenting women. Second, I propose that female-dominated groups induce expectations regarding *similarity* and *relationality*. Again, gender and status stereotypes will still operate in these groups, but I argue that members of female-dominated groups will give special consideration to similarity and relationality violations

when evaluating dissenting women. As such, I argue that women who dissent in male- and female-dominated groups will experience *more* backlash than women in mixed gender groups.

Male-dominated groups. As discussed above, men have traditionally occupied higher positions in the social hierarchy, both within and outside of organizations (Eagly & Wood, 1982). I argue that gender-based status expectations should be especially salient in the case of a female dissenter in an all-male group. One factor that contributes to this is the fact that high power parties tend to underestimate similarities they might share with lower power individuals (Keltner & Robinson, 1997) and majority members underestimate similarities with minority members (Deaux & Wrightsman, 1984). Consistent with this, several studies have demonstrated that gender differences in status are more salient in mixed-gender interactions (Carli, 1990; Deaux & Major, 1987; Ridgeway & Berger, 1986). When groups are composed of individuals of the same gender, comparisons between men and women are not likely to be made. In contrast, the inclusion of a woman in a male-dominated group makes gender differences especially salient and activates gender-based assumptions and expectations. I argue that this will result in members of male-dominated groups holding higher expectations that women should act in accordance with low status norms. Hence, dissenting women may be perceived as committing an especially egregious status violation in male-dominated groups.

Of particular relevance to this argument is the literature on tokenism. In a seminal piece, Kanter (1977) examined 'tokens' in the workplace- members of a numerical minority, such as a woman in a male-dominated work group. A large body of work shows

that being a member of a visible and salient minority leads to increased observation (Ragins & Sundstrom, 1989). Female tokens are 'on display' at any given time, leaving their actions open to careful scrutiny by other organizational members. This increased level of attention directed at women translates into harsher penalties for minor mistakes or transgressions (Roth, 2004). In the case of dissent, a woman's violation of prescribed status behaviors should be especially salient in male-dominated groups.

In addition, as a higher status group in organizations, men's relatively higher level of power may play a role how they perceive female dissenters. A well-established finding is that powerful individuals tend to rely on judgmental heuristics (e.g., stereotypes) more than lower power parties (e.g., Fiske, 1993). This should result in an increased reliance on stereotypes about women in male-dominated groups, thereby bolstering the expectations to which women are expected to adhere. As such, any violations should be especially pronounced and met with a proportional level of backlash.

There are multiple reasons why members in male-dominated groups might react particularly strongly to status violations. For one, status violations committed by women pose a direct threat to men's status as the dominant party. As discussed, high status members are motivated to maintain their standing in the social hierarchy (Homans, 1950) and are therefore extremely sensitive to actions that challenge this. That is, men in male-dominated groups may see dissenting women as reaching "out of their place" and beyond their low status. As previously mentioned, individuals who are seen as overstepping status boundaries receive severe sanctions. As such, women who challenge the status quo by dissenting may incur harsh penalties. Furthermore, research shows that members of high-status groups tend to hold more hierarchy-enhancing beliefs (e.g., that some people

are more deserving of privileges than others; Bowles & Gelfand, 2010). In the aforementioned Bowles and Gelfand (2010) studies, a main effect for evaluator status emerged such that high status individuals punished low status deviants more harshly than did low status evaluators. More specifically, White men, who have membership in two high status categories (i.e., males and Whites) were especially hard on Blacks and women who engaged in deviant behavior, regardless of severity of the behavior. In sum, there is substantial evidence supporting the claim that members of male-dominated groups should be especially sensitive to the status violations committed by dissenting women.

Female-dominated groups. Women who dissent in female-dominated groups might be faced with a different set of obstacles than those who dissent in male-dominated groups. On a broad level, a growing body of evidence points to the prevalence of "girl on girl" crime in organizations (Duguid, 2011; Parks-Stamm, Heilman and Hearns, 2008; Rudman, 1998; Salmon et al., 2011), or aggression perpetrated by one woman toward another. For example, Salmon et al. (2011) found that female subordinates who resisted requests from female supervisors were met with especially harsh reactions, especially when subordinates used direct resistance strategies (i.e., simply refusing versus subtly indicating preferences). Parks-Stamm, Heilman and Hearns (2008) found that successful women were perceived as threatening by other women, who responded by penalizing them in order to avoid upward social comparison. Consistent with these findings, Duguid (2011) demonstrated that women in high-prestige workgroups were unsupportive of highly qualified women joining these groups because these women served as a threat. Related work shows that high power women often become "Queen Bees" who effectively stifle the promotion of other women up to their ranks (Derks Van Laar, Ellemers, & De

Groot, 2011). These studies demonstrate that women can be especially hard on other women in the workplace.

In the case of dissent, I argue that similarity expectations and relationality expectations may underlie much of the backlash directed toward women who speak up in female-dominated groups.

Similarity expectations. A large body of work demonstrates that people assume congruence between surface-level and deep-level characteristics (e.g., Allen & Wilder, 1979; Chen & Kenrick, 2002; Phillips, 2003). That is, people expect similar others to share the same attitudes and beliefs as the self. Further, there is evidence that confirming the expected congruence between surface-level and deep-level similarity is related to positive outcomes (e.g., Phillips, 2003; Phillips, Mannix, Neale, & Gruenfeld, 2004). Perhaps more important, dissenters who are demographically similar to group members are met with especially harsh punishment, in large part because they violate similarity expectations (Phillips & Loyd, 2006).

In an examination of this phenomenon, Phillips and Loyd (2006) conducted a study to examine group diversity and reactions to dissenting members. In a scenario study, MBAs were asked to imagine they were in a group with either two other MBAs (a homogenous group) or one other MBA student and a medical student (heterogeneous group). Their task was to choose between two markets to target for a new product. Participants reported levels of perceived similarity and anticipated agreement with each group member. Subsequently, they received information that both group members disagreed with their position. There was a main effect such that participants were more irritated by disagreement from similar others (other MBAs), but that this effect was

especially pronounced in the homogenous group condition. This study provides support for the notion that members of female-dominated (i.e., homogenous) groups may be particularly sensitive when other women disagree.

Women who dissent in female-dominated groups may also incur penalties as a result of damaging the group's identity. Social identity theory posits that ingroup favoritism arises from attempts to preserve the positive differentiation of one's ingroup from other groups (Tajfel, 1982; Turner, 1975). In the case that an ingroup member conforms to group norms, they are evaluated more positively than outgroup members. However, when an ingroup member engages in deviant behavior, they receive especially harsh punishment relative to outgroup members. Biernat, Vescio, and Billings (1999) argue that this effect, known as the *black sheep effect* (Marques, 1990; Marques, Robalo & Rocha, 1992; Marques, Yzerbyt & Leyens, 1988), is a sophisticated form of ingroup favoritism. In essence, by rejecting deviant members, group members are able to maintain and protect the positive image of the group.

The black sheep effect is especially likely to occur when group membership is relevant and important to the individual. Khan and Lambert (1998) examined black sheep effects with regard to group membership based on gender. Participants were asked to evaluate an ingroup (same gender) or outgroup (opposite gender) target who behaved in an either helpful (positive) or condescending (negative) manner toward another. While ingroup favoritism and black sheep effects occurred among both male and female participants, the effects were much stronger for female participants. This suggests that gender may be regarded as a more important criterion for group membership for women than men. Hence, it follows that all-female groups may react especially negatively toward

female dissenters.

Finally, expectations of similarity between the self and others have been linked to increased relationality (Cross, Morris, & Gore, 2002), to which I now turn.

Relationality expectations. A large body of work supports the notion that women hold a relational self-construal, in which they view the self as fundamentally connected to others (Gelfand, Major, Raver, Nishii, & O'Brien, 2006). The priority of individuals with relational self-construal is to emphasize this connectedness and behave in ways that promote and strengthen existing relationships (Cross, Morris, & Gore, 2002). In contrast, an independent self-construal (characteristic of men) encompasses being a self-contained autonomous entity, separated from others, being dissimilar to others, pursuing individualistic goals, and demonstrating uniqueness by an assertion of dominance over others (Cross & Madson, 1997; Schweder & Bourne, 1982). It should be noted that relationality expectations are separate from gender stereotypes. Although the relational self-construal shares some similarities with the communality component of feminine stereotypes (e.g., prioritizing relationships, taking care of others), relationality is distinct in that its defining feature is a perception of *connectedness* to others.

The finding that women hold a relational self-construal seems to be universal. For example, Kashima et al. (1995) demonstrated that women are more relational than men in Japan, Korea, Australia, Hawaii, and mainland United States. Furthermore, in a meta-analysis using samples from 47 countries, Prince-Gibson & Schwartz (1994) found that women attribute greater importance to security and benevolence values, both of which are associating with preserving relationships and the wellbeing of close others. In contrast, men attribute greater importance to self-direction, stimulation, achievement, and

power values, which are decidedly non-relational in nature.

Self-construal serves as a lens through which to interpret and react to behavior. Concepts of the self influence several types of information processing such as perception, attributions, and inferences (Fiske & Taylor, 1991) as well as social behaviors such as emotion and affect regulation (Cross & Madson, 1997). In particular, relational self-construal has been linked to numerous social processes that serve the purpose of developing and maintaining relationships (e.g., Cross, Bacon & Morris, 2000; Gabriel & Gardner, 1999).

Gelfand et al. (2006) argue that self-construal can be temporarily or chronically accessible. When individuals frequently and consistently construe the self using certain attributes, this type of construal becomes chronically accessible. In contrast, a self-construal can become temporarily accessible when strong features of a situation facilitate the saliency of certain attributes. One such feature includes being in a group, which, when paired with the fact that women (as individuals) tend to have a relational self construal, should make female-dominated groups especially sensitive to relationality violations.

This heightened relationality standard could result in increased backlash toward female dissenters through multiple means. As mentioned, women who dissent may be perceived as disrupting the social harmony of the group, thereby jeopardizing their relationships with other members. This represents a major violation of the expectation that people should preserve and enhance interpersonal relationships. Further, classic social psychological theory proposes that individuals are motivated to confirm their self-construal and react positively to information that is consistent with the self-concept. In

contrast, threats to an individual's self-concept are met with strong negative emotions and may prompt behavior aimed toward reaffirming one's self-construal (Higgins, 1987). It is likely the case that dissenting a woman threatens the view of the self as relational, which may prompt reprimand from other women. Finally, relationality expectations place an emphasis on being socially "in tune" and behaving appropriately given the social context. Female dissenters violate this norm by deviating from group norms and may therefore be targeted for being socially "out of tune." That is, dissent may be interpreted as evidence of a woman's social incompetence (Santee & Jackson, 1982) that must be punished.

Mixed-gender groups. In contrast to all male or all female groups, I expect less backlash toward dissenting women in the case of mixed-gender groups. A strong male presence makes status violations salient, while a strong female presence makes similarity and relationality violations salient. That is, the domination of the social context by either men or women introduces additional expectations regarding appropriate behavior in terms of status, similarity, and relationality, so any violations of these expectations are therefore exaggerated. In the case of mixed gender groups, neither gender dominates the social context. As such, expectations regarding appropriate behavior and the penalties for violating them should remain at baseline levels. As stated above, overarching gender stereotypes and status violations are expected to play a role in mixed gender groups, but these factors are not expected to be intensified by the social context. Hence I propose that women in mixed gender groups will receive less backlash than women in female- and male-dominated groups.

Some indirect evidence supports this claim. For example, work has demonstrated that women exert more influence in gender-balanced groups than in male- or female-

dominated groups (Craig & Sherif, 1986; Taps & Martin, 1990; Izraeli, 1993). In the aforementioned Phillips and Loyd (2006) study, the authors examined groups that were heterogeneous or homogeneous with respect to members' educational background. They found an overall effect of group composition such that that dissenting individuals in heterogeneous groups perceived groups as more accepting and positive, and also persisted more and felt more confident in voicing their opinions as compared to homogenous groups. At a more general level, several studies have found that mixed-sex groups enjoy improved performance (Elfenbein & O'Reilly, 2007; Rigg and Sparrow, 1994; Smith and Stander, 1981) over groups dominated by either gender.

The case of male dissenters. As mentioned, the mechanisms discussed above (e.g., gender and status expectations) are expected to play a crucial role in evaluation of female dissenters due to the incompatibility of dissent with feminine and low status expectations. In contrast, these mechanisms will not be at play when men dissent because dissenting matches the masculine and dominant behavior expected of men. That is, men do not commit gender and status violations when they dissent—rather, men adhere to norms by dissenting. Since I propose that group composition intensifies the effects of expectation violations for female dissenters, it follows that group composition should matter less for male dissenters, given that they are not committing violations in the first place. More specifically, I predict:

Hypothesis 2: Women who dissent in male-dominated and female-dominated groups will receive more backlash than women who dissent in mixed-gender groups. In contrast, men who dissent will receive similar amounts of backlash in male-dominated, female-dominated, and mixed-gender groups.

Hypothesis 3: Women will be evaluated as violating different types of expectations and to varying degrees when they dissent in male-dominated, female-dominated and mixed gender groups. While women will be evaluated as violating gender stereotype and status expectations in all groups, in male-dominated groups, violations of status expectations will be exacerbated, while in female-dominated groups, violations of similarity and relational expectations will be exacerbated. In contrast, men will be evaluated similarly in across male-dominated, female-dominated and mixed-gender groups.

Study 2 of the current work (Chapter 5) tests hypotheses 2and 3.

Women's Expectations of Backlash for Dissent and Its Implications for Dissent Behavior

The goal of Study 1 is to examine main effects of gender on consequences directed at individuals who dissent, while the goal of Study 2 is to shed light on how the social context moderates such consequences. I extend this to an examination of women's *awareness* of the consequences incurred by female dissenters as a function of the social context. In Study 3, I ask the question, to what extent are women able to pick up on the social cues that signal backlash toward dissenters? This has clear implications for women's decisions regarding whether to dissent or not and in what conditions. Further, to what degree can women pinpoint what types of consequences they might incur dissent in different types of groups? That is, are women aware of the expectations they might be perceived as violating (e.g., status, relationality) in male-dominated, female-dominated, and mixed gender groups? An understanding of the expectations for appropriate behavior

in different social circumstances may allow women to calibrate the way in which they dissent to the situation.

Women's awareness of dissent consequences. The flow of this argument mirrors previous work taking a cyclical perspective on women's engagement in stereotypically masculine behaviors. Specifically, I argue that women receive backlash for engaging in certain types of stereotypically masculine behavior, that they are acutely aware of these backlash consequences, and that this fear of backlash ultimately constrains their behavior.

Bowles, Babcock, and Lai (2007) employed a cyclical perspective in their examination of initiating negotiation, which, like dissent, is a highly masculine and dominant behavior. The authors first showed that women who initiated negotiation received backlash for doing so (in their Studies 1-3). They then assessed the extent to which women were aware of the potential consequences of this behavior. In Study 4, participants were asked to adopt the perspective of the job candidate and to choose between two potential strategies for how to respond to a question about a salary and benefits offer posed by an interviewer. One strategy entailed making additional requests of the potential employer (initiating negotiation regarding pay, a gym membership, a computer, etc.), while the other did not. In general, male participants were much more likely to choose the additional request strategy than were women. In addition, women who did choose the additional request strategy reported being much more nervous about how potential coworkers might perceive them than did men, hence demonstrating women's expectations of negative outcomes should they attempt to negotiate. As such, Bowles, Babcock, and Lai's (2007) work demonstrates how fear of backlash can

constrain women's behavior and prevent them from engaging in potentially rewarding behaviors.

Brescoll (2012) examined women's volubility as a cyclical phenomenon, first showing that high power women speak much less than high power men (Studies 1 and 2), and then going on to show that fear of backlash underlied women's silence (Study 4). As discussed earlier, Brescoll (2012) demonstrated that high power male senators spoke significantly more than did high power female senators (who spoke the same amount as their lower power counterparts). In Study 3, Brescoll replicated these findings by demonstrating that male participants primed with high power (that they were the most powerful member of a team) talked more than those primed with low power (that they were the least powerful member of a team), but that the power primes had no effect on female participants' amount of speech. Finally, Study 4 asked participants to evaluate male and female CEOs who were described as talking more or less than "others in power." While female CEOs high in volubility received harsher ratings than female CEOs low in volubility, this effect was reversed for male CEOs. This finding indicates that while male CEOs should display their power, female CEOs should not.

I propose that dissent operates in a similar way to other stereotypically masculine and dominant behaviors (e.g., initiating negotiation and speaking more than others). That is, I suggest that dissenting women receive varying levels of backlash as a function of the social context and thereby become calibrated to the contexts in which dissenting will be particularly costly. It is conceivable that women are at least somewhat aware of these consequences, given the large body of work that cites fear of consequences as a key reason people refrain from speaking up (e.g., Cortina & Magley, 2003; Detert &

Edmonson, 2005; De Dreu, De Vries, Franssen, & Atlink, 2000; Leslie & Gelfand, 2008; Nemeth & Goncalo, 2011). What remains unexplored is whether or not women are aware of how the social context moderates the consequences incurred by dissenting. That is, are women able to pick up on social contextual cues that indicate that dissenting in certain situations might be particularly risky? I propose that women anticipate more backlash in the social situations in which women generally receive more severe penalties for dissenting (i.e., in female- and male-dominated groups). Moreover, I examine women's awareness of the expectations they may be perceived as violating in different types of groups (e.g., violations of status, similarity, and relationality expectations). An awareness of the reasons women receive backlash under different social circumstances has profound implications for how women might choose to dissent in the presence of certain others. That is, women might calibrate their behavior to the social context if they are aware of the specific expectations they risk violating by dissenting. Study 3 tests two hypotheses:

Hypothesis 4: Women will anticipate more backlash for dissenting in female- and male-dominated groups than in mixed gender groups.

Hypothesis 5: Women will anticipate that members of male-dominated, female-dominated and mixed gender groups will perceive them as violating different types of expectations and to varying degrees. While women will anticipate that others will perceive them as violating gender stereotypes and status expectations in all groups, in male-dominated groups, women will anticipate that members will perceive them as committing especially severe status violations whereas in female-dominated groups, women will anticipate that members will perceive them as violating similarity and relationality expectations.

Women's dissent behavior. Finally, I extend the current work into an examination of actual dissent processes. In Study 4, I examine how the social context affects women's actual dissent behavior in groups. Further, I examine how dissent affects group performance. In doing so, I aim to show that women dissent less in certain social situations and that this ultimately compromises the quality of group decisions-particularly, as is tested in the methodology, when women have important information that is different, but more accurate, than the rest of the group (McLeod, Baron, Marti, & Yoon, 1997). Accordingly, Study 4 builds on Studies 1, 2, and 3 by linking the consequences of dissent and the awareness of such consequences to actual dissent behavior in a group context.

I previously suggested that women are able to pick up on the social cues that indicate that dissenting in female- and male-dominated groups will produce more backlash than dissenting in mixed gender groups (Study 3). This logic would suggest that women in these social circumstances should be less likely to express dissent. This is consistent with Bowles, Babcock, and Lai's (2007) finding that women are less likely to initiate negotiation when they anticipate the more backlash and Brescoll's (2012) finding that women are less likely to speak up for fear of backlash. Study 4 explicitly examines the possibility that women in male- and female-dominated groups are less likely to dissent than women in mixed-gender groups.

Hypothesis 6: Women will dissent less in female- and male-dominated groups than in mixed gender groups.

Implications for group performance. I also aim to link dissent to actual group performance. As discussed in the introduction, dissent has been linked to a myriad of

positive group outcomes while silence has been blamed for many group failures (e.g., Nemeth & Goncalo, 2011). Building upon the argument that women will be less likely to dissent in male- and female-dominated groups, I aim to show that these groups also suffer from decreased group performance particularly when women in the dissenting position have crucial information, as will be modeled in the method below.

In Study 4, participants engage in a group task in which they must come to consensus regarding an investment. In the task, each of the four group members receives informational profiles on the investment options (A, B, or C). However, three group members receive *incomplete* information that leads them to believe that B is the best choice. In turn, the fourth group member receives *compete* information that shows that, in reality, A is the best choice. In this case, the fourth member must dissent in order to share critical information with the group. If the fourth member fails to share this critical information, group performance is seriously compromised. This task is specifically designed such that reaching the correct answer is only possible when dissent occurs. Therefore, in groups in which dissent is less likely (i.e., female and male-dominated groups), performance is likely to suffer. This possibility is tested by the following hypothesis:

Hypothesis 7: Female- and male-dominated groups will perform lower than mixed gender groups and the relationship between group composition and group performance will be mediated by dissent.

Further, Study 4 provides a validation of Studies 2 and 3 in terms of examining actual and expected backlash directed toward women who dissent in groups of different gender composition. That is, after completing the task, majority group members complete

measures evaluating the dissenter, while the dissenter completes measures evaluating

how she anticipates being perceived by others. It should be noted that there will be some

natural variation in dissent across these groups, as I argue that group composition affects

women's tendency to dissent. However, when women do express dissent, Study 4

provides a means of testing Hypotheses 2, 3, 4 and 5 in a different environment.

     Dissent communication style. To this point, I have focused largely on how *much*

women will dissent, but an additional important consideration concerns *how* women

dissent. Individuals can express dissent in a range of ways, from using tentative

suggestions to outright demands that others adopt one's beliefs. As an additional

exploratory analysis, I aim to examine whether women employ different types of

communication strategies in different types of groups, as well as how these

communication strategies are related to both dissenter and group outcomes.

     My approach to exploring communication parallels my approach to examination

of dissent. Below, I first discuss communication as gendered behavior before turning to

the role of the social context.

     A long tradition of research examines the effects of gender and status on

communication, much of which centers around politeness (Brown & Levinson, 1987).

Well-documented findings show that high power is associated with speaking more (e.g.,

Brescoll, 2012), speaking out of turn (i.e., interrupting; DePaulo & Friedman, 1998), and

using less polite communication strategies (Brown & Levinson, 1987; Carli, 2001). In

contrast, those low in power (including women) employ more polite strategies, such

indirect and tentative speech (Bowles & Flynn, 2010; Henley, 1977, 1995; Lackoff, 1975;

Mills, 2003).

Brown and Levinson's (1987) seminal politeness theory provides an excellent framework for understanding communication as gendered behavior. Politeness theory proposes that individuals use a myriad of communication strategies that differentially affect another's face, or the self-image the other projects. Negative politeness strategies are geared toward avoiding impositions on another and include behaviors such as being indirect and asking questions. Positive politeness strategies are geared toward enhancing another's face and include behaviors like complimenting and avoiding disagreement. These polite behaviors are largely consistent with feminine notions of communality and relationality.

Alternatively, communication strategies may also *harm* another's face, such as expressing disapproval (e.g., contradicting) or indifference (e.g., interrupting) toward another. These decidedly impolite strategies are not only noncommunal, but are also displays of dominance. As such, impolite strategies violate both gender and status expectations. Not surprisingly, women who employ impolite strategies are ultimately less effective in convincing others, as well as less liked (Carli, 2001). For example, Carli (1998) demonstrated that participants disliked a woman who expressed direct (vs. indirect) disagreement with them more than a man who did the same, and were therefore less persuaded by her. In fact, participants showed overt expressions of hostility and tension in response to a disagreeing female who employed direct communication tactics. Other work (e.g., Buttner & McEnally, 1996; Carli, 1990) showed that women who employ a competent (i.e., direct and noncommunal) influence style are significantly less liked than their male counterparts who employ the same style. Hence, women's

communication style has critical implications not just for how much influence they exert, but also for how much backlash they risk receiving.

The next question concerns how the social context might influence women's communication strategies. That is, might women use more polite or impolite strategies in different types of groups? Some existing evidence shows that women adapt their influence tactics to fit the social context. For example, Carli (2001) found that women used a low status speech style (i.e., more tentative) when speaking with men more than with women and that this was related to higher levels of influence. In a similar vein, Bowles and Flynn (2010) examined gender differences in degree and manner of persistence in negotiation as a function of the social context. Taking a dyadic perspective, the authors argued that women's persistence in negotiation would be predicted by the gender pairing of the dyad. Results showed that women persisted more with male negotiation opponents, but did so in a typically low-status manner (i.e., using an indirect style of communication). What is crucial about these studies is that they suggest that women calibrate their influence attempts to the social context. Study 4 explores the possibility that this tendency generalizes to dissent processes as well. That is, I examine the possibility that women adjust the style with which they express dissent to the group in which they are embedded.

More specifically, I will explore the possibility that women will employ more polite (vs. impolite) tactics when dissenting in female- and male-dominated groups than when dissenting in mixed gender groups. Impolite communication tactics violate many of the gender and status violations that are especially salient in female- and male-dominated groups and as such, women should receive more backlash for employing these tactics in

such groups. To the extent that women are aware of these backlash consequences, they should be particularly unlikely to use impolite tactics in female- and male-dominated groups relative to mixed gender groups. In the case that women do employ impolite tactics, this may impair her influence within the group, depending again upon the social context. That is, group members' negative reactions to women's impolite behavior should limit their willingness to listen to her, which will ultimately constrain her influence within the group. As such, the use of impolite tactics might be especially ineffective in female and male-dominated groups. Further, given that dissenter influence translates into better group performance in the task used in the current study, lower dissenter influence should result in poorer performance. As such, the use of impolite strategies should also be linked to decreased group performance in female- and male-dominated groups. Put more formally, I will examine whether the use of impolite strategies (e.g., negating, interrupting, and expressions of negativity) versus polite strategies (e.g., assenting and asking questions) has a more negative impact on group performance and backlash in female- and male-dominated groups.

Although this dissertation focuses on how group composition in terms of gender affects women's dissent behavior, many other moderators of dissent dynamics should be acknowledged and, hopefully, explored in future work. For example, women's status within an organization might have important implications for if and how she dissents. A woman in a high-ranking position might be especially likely to dissent regardless of the social context given that her power might lend her legitimacy and buffer against the negative effects of backlash. Physical attractiveness might also influence dissent dynamics. The "what is beautiful is good" hypothesis (Dion, Berscheid, & Walter, 1972)

suggests that people might be more receptive to dissent from an attractive woman, while work on intrasexual competition in the workplace (Ruffle & Studiner, 2010) suggests that women, in particular, may react especially negatively to dissent from an attractive female. Further, factors such as knowledge of the topic area or personality variables like extraversion could certainly influence a woman's willingness to speak up, as well as how others respond. Though a comprehensive examination of potential moderators of dissent dynamics is beyond the scope of this dissertation, I will return to a discussion of select factors.

Overview of Studies

I present four complementary studies with the goal of examining how the social context interacts with gender dynamics in dissent processes. I examine dissent as a cycle, beginning with an exploration of the consequences incurred by women who dissent (Study 1) as well as an examination of how the social context moderates these effects (Study 2). Next, I explore whether or not women are aware that the consequences of dissenting do, in fact, differ as a function of the social context (Study 3). Finally, I explore whether women's dissent behavior translates into different consequences for both the dissenter and the group as a function of the social context (Study 4). This design allows for an examination of the trajectory of dissent and its implications for women's knowledge-sharing behavior and group outcomes.

Chapter 4: Reactions to Dissenters (Study 1)

The goal of Study 1 was to examine the possibility that women who dissent receive greater penalties than men who dissent. This study employed an adaptation of a group project scenario task originally created by Phillips (2003), in which participants were placed in a scenario in which they are asked to evaluate a dissenting group member. Phillips (2003) used this method to examine how individual dissent interacted with group membership (i.e., ingroup versus outgroup) to predict affective reactions toward the dissenter as well as group efficacy. Phillips and Loyd (2006) used the same design to examine how expectations of similarity based on shared surface-level characteristics affected evaluations of dissenting group members. The current study adapted this scenario to examine how individuals reacted to female versus male dissenters.

Method

Participants. Study 1 was an online scenario study. Participants were recruited using Amazon's Mechanical Turk. Mechanical Turk is an online, crowdsourcing marketplace where individuals can complete a variety of small tasks for compensation. Mechanical Turk has been used in prior social science research to examine a wide variety of phenomena and has been shown to be adequate source of participants (Behrend, Sharek, Meade, & Wiebe, 2011; Buhrmester, Kwang, & Gosling, 2011). An a priori power analysis (calculated using G*Power 3.1) with a medium effect size (f=0.30), recommended power ($1–\beta$=0.80) and an error probability of α = .05 revealed a necessary sample size of 90 participants. Participants included 87 working adults residing in the United States, including 51 women (59%) and 36 men (41%). The average age was M=31.85, SD=11.44 and participants had an average of M=10.69, SD=10.68 years of

work experience. The sample was 71.3% Caucasian, 13.8% Asian or Asian American, 9.2% African American, 4.6% Hispanic, and 1.15% other.

Design and materials. The study presented participants with a scenario adapted from Phillips and Loyd (2006) in which the participant was instructed to imagine that they were working with three other group members on a class project. The class project entailed deciding which market (X or Y) to target for selling a new product. Instructions explained that while the participant and two other group members were in agreement, the remaining group member disagreed (i.e., dissented). The gender of the dissenter was manipulated to create two experimental conditions: female dissenter and male dissenter.

Procedure. After providing consent, participants were asked to provide the following demographic information: age, race, highest level of education, occupation, years of fulltime work experience, and gender. Subsequently, participants read the following scenario adapted from Phillips & Loyd (2006):

"You are working on a group project for an Entrepreneurship: Formation of New Ventures course. Your group includes four people.

The assignment is to develop a business plan for a product. The product, developed by a team of professors at a top Medical School, is a Magnetic Resonance Imaging (MRI) system that allows for the accurate imaging and diagnosis of the heart that is totally noninvasive. You are all committed to working on this project and you have put in a lot of time. Funding for the business plan is contingent on a full launch, so you need to be careful about choosing the right market to target.

You are meeting to discuss a number of issues including estimated sales, cost of production and development, financial requirements, risks, and the target market. A third of the way into the meeting, you enter into a discussion about what each of you believes is the best market to target - Market X or Market Y. You are all very committed to your opinions.

After much research, you believe Market X is the best market to target. **Two people in the group agree with your opinion to target Market X, but one woman [female dissenter condition] / one man [male dissenter condition] disagrees with the group and says that you should target Market Y instead."**

Subsequently, participants were asked to complete a scale assessing backlash toward the dissenter and a manipulation check.

Measures.

Backlash. Participants answered the following 6 questions (adapted from Bowles, Babock, & Lai, 2007) with respect to the dissenter using a 1-7 scale (1= not at all, 7 = very much). All items were reverse coded.

1. How much would you enjoy having this woman/man in your group?

2. How beneficial would it be to have this woman/man in your group?

3. How much would you like to work with this woman/man on another group project?

4. How much do you respect this woman/man?

5. How seriously would you take this woman/man?

6. How helpful was this woman/man?

Manipulation check. One manipulation check was included, which asked the participant to specify the gender of the dissenter. Three participants were removed for failing this manipulation check.

Exclusion criteria. Participant responses were examined for completeness and coherence. Ten participants were removed for failing to complete the majority of the measures or for providing incoherent responses (e.g., gibberish or other nonsensical responses to qualitative response items like occupation, race, etc.).

Results

Descriptives. Means, standard deviations, and bivariate correlations for demographics and the backlash measure are presented in Table 1. Race was coded as 1= Caucasian and 0=non-Caucasian. I examined race in this way given that sample sizes among specific racial sub-groups varied substantially, thereby making them difficult to compare to each other. Race did not relate to backlash, nor did other demographic measures (e.g., age, work experience, etc.).

Test of Hypothesis 1. Hypothesis 1 proposed that women who dissented would receive greater penalties than men who dissented. This hypothesis was supported, as results showed a main effect of dissenter gender such that female dissenters received more backlash (M=3.78, SD=1.30) than did male dissenters (M=3.26, SD=1.19), t(85)=1.963, p=.053.

However, this main effect needs to be interpreted in light of a significant interaction between participant gender and dissenter gender, F(1, 83)=8.334, p=.005. Pairwise comparisons revealed that female participants exhibited more backlash toward

female dissenters (*M*=4.10, *SD*=1.26) than male dissenters (*M*=3.22, *SD*=1.20; $F(1,83)$=11.42, *p*=.001) while male participants exhibited equal levels of backlash toward female (*M*=2.96, *SD*=0.99) and male dissenters (*M*=3.61, *SD*=1.33; *p*=.354). The difference between backlash directed toward female dissenters from male versus female participants was also significant ($F(1,83)$=5.34, *p*=.023) with females having more backlash toward female dissenters than males.

Discussion

Study 1 provides preliminary evidence of increased backlash toward female (relative to male) dissenters, thus supporting Hypothesis 1. This finding is especially compelling considering the largely decontextualized nature of the scenario- participants were simply told that the dissenter disagreed with the majority, but were given no additional information about the dissenter (e.g., the manner in which they dissented or other characteristics).

Further, a significant participant gender by dissenter gender interaction emerged such that female participants were especially hard on female dissenters, while male participants reacted similarly to female and male dissenters. This mirrors findings from recent work on the harsh penalties directed by *women* toward *women* in organizations (e.g., Duguid, 2011; Parks-Stamm, Heilman and Hearns, 2008; Rudman, 1998; Salmon et al., 2011). Parks-Stamm, Heilman and Hearns (2008) showed that successful women are perceived as threatening by other women, who respond by penalizing them. Dissent, by nature, is very threatening in that it involves challenging the viewpoints of others. When it comes to dissent, Study 1 shows that other women may be female dissenters' worst enemies.

The current study suffers from limited realism, as participants were simply asked to imagine that they were in the scenario described. Although scenario studies are pragmatic, they lack ecological validity, which constrains generalizability to a degree. Participants may have been minimally invested in the task given its limited relevance to everyday life. Nonetheless, that results emerged in such a decontextualized and "low stakes" situation may speak to the strength of the phenomenon of backlash toward female dissenters.

In sum, Study 1 demonstrated that female dissenters incurred greater penalties than did male dissenters and that this effect was primarily driven by backlash perpetrated by other women. The following studies build upon this finding by taking into account effects of the social context as well as the mechanisms underlying backlash (and expected backlash) toward female dissenters.

Chapter 5: The Role of the Social Context (Study 2)

The goal of Study 2 was to explore how group gender composition influences the consequences incurred by female versus male dissenters. Study 2 employed the same scenario as Study 1, further adapted to allow for the examination of the interaction between dissenter gender (male versus female) and group gender composition (female-dominated, male-dominated, and mixed gender) on evaluations of and consequences directed toward the dissenter. This study was designed to test the notion that women's dissent is particularly problematic in certain group compositions. In particular, I tested the following hypotheses:

> **Hypothesis 2**: Women who dissent in male-dominated and female-dominated groups will receive more backlash than women who dissent in mixed-gender groups. In contrast, men who dissent will receive similar amounts of backlash in male-dominated, female-dominated, and mixed-gender groups.

> **Hypothesis 3**: Women will be evaluated as violating different types of expectations and to varying degrees when they dissent in male-dominated, female-dominated and mixed gender groups. While women will be evaluated as violating gender stereotype and status expectations in all groups, in male-dominated groups, violations of status expectations will be exacerbated, while in female-dominated groups, violations of similarity and relational expectations will be exacerbated. In contrast, men will be evaluated similarly in across male-dominated, female-dominated and mixed-gender groups.

Method

  Participants. Study 2 was also deployed using Mechanical Turk. An a priori power analysis (calculated using G*Power 3.1) with a medium effect size (f=0.30), recommended power (1–β=0.80) and an error probability of α=.05 revealed a necessary sample size of 150 participants. However, it was necessary to oversample given the complexity of the current design and the assignment of participants to experimental conditions. Participants included 281 working adults residing in the United States, including 155 women (55%) and 126 men (45%). The average age was M=34.29, SD=12.36 and participants had an average of M=13.16, SD=11.48 years of work experience. The sample was 75.72% Caucasian, 9.42% African American, 8.33% Asian or Asian American, 2.90% Hispanic, and 3.62% Multiracial or other.

  Design and materials. The design was a 3 (group composition: female-dominated vs. male-dominated vs. mixed gender) by 2 (dissenter gender: male vs. female) design. In the gender-dominated conditions (i.e., female-dominated and male-dominated), the dominant gender in the group always matched the gender of the participant. In the mixed gender conditions, the gender of group members was manipulated contingent upon participant gender to achieve an equal number of men and women (including the dissenter) in the group. Survey-based skip logic was employed to facilitate the assignment of a certain experimental condition on the basis of participant gender. That is, after specifying their gender, the participant was directed to a specific version of the survey corresponding to the appropriate condition. The table below illustrates how participant gender and group member gender were configured in the six conditions.

Condition	Female-Dominated Group	Male-Dominated Group	Mixed Gender Group
Female Dissenter	Female participant, two female group members (FFFF)	Male participant, two male group members (MMMF)	Female participant, two male group members OR male participant, one female and one male group member (Mixed F)
Male Dissenter	Female participant, two female group members (FFFM)	Male participant, two male group members (MMMM)	Male participant, two female group members OR female participant, one female and one male group member (Mixed M)

Group composition and dissenter gender were manipulated by using male and female names. Names were selected on the basis of popularity for people in the 20-40 year age range (the expected age range of participants) as listed by the Social Security Administration's (2012) Name Database, and categorization as exclusively female or male (i.e., no gender neutral names were included). Females names included Kristen, Elizabeth and Sarah. Male names included Jason, David, and Ryan.

Procedure. After providing consent, participants were asked to provide the following demographic information: age, race, highest level of education, occupation, years of fulltime work experience, and gender. It was crucial to collect information on participant gender at this point because experimental condition was contingent upon participant gender. The other demographic information was collected at the same time to mask the purpose of the study. The Phillips & Loyd (2006) scenario used in Study 1 was adapted slightly so that the first part read (with names changed to reflect experimental condition):

"You are working on a group project for an "Entrepreneurship: Formation of New Ventures" course. Your group includes four people:

1. You

2. Kristen

3. Elizabeth

4. Sarah"

The second and third paragraphs remained identical to Study 1, but the last paragraph was adapted to read:

"After much research, you believe Market **X** is the best market to target. Elizabeth and Sarah agree with your opinion to target Market **X**, but Kristen disagrees with the group and says that you should target Market **Y** instead."

Subsequently, participants were asked to evaluate the dissenter using measures to tap into backlash toward the dissenter, gender stereotypes, violations, status violations, similarity, relationality, and a qualitative response item. Finally, participants completed two manipulation checks.

Quantitative measures. The following quantitative measures were included.

Backlash. The same 6-item measure from Study 1 was used to assess backlash toward the dissenter.

In addition to backlash, I measured variables that were proposed to underlie backlash toward female dissenters, namely gender stereotype violations (across all groups), status violations (across all groups, but exacerbated in male-dominated groups), and similarity and relationality violations (exacerbated in female-dominated groups).

Gender stereotype violations. Measures included items related to femininity and masculinity, which were adapted from Heilman and Okimoto (2007). Participants were asked to rate the dissenter on a 1-7 scale (1= not at all, 7 = very much) with respect to 6 items for femininity and 7 items for masculinity. Femininity items included supportive, understanding, sensitive, caring, agreeable, modest. Masculinity items included strong, assertive, tough, bold, aggressive, ambitious, and competitive.

Competence is an additional subcomponent of the masculine stereotype and as such, was included in the current study. Participants were asked to rate the dissenter on a 1-7 scale (1= not at all, 7 = very much) with respect to 3 items tapping into the competence of the dissenter: intelligent, competent, and well-informed.

Status violations. Participants were asked to rate their agreement on a 1-7 (1= not at all, 7 = very much) with 6 items tapping into status violations. Items included:

1. [*Dissenter name*] is trying to take over

2. [*Dissenter name*] is overestimating her/his status

3. [*Dissenter name*] doesn't know her/his place

4. [*Dissenter name*] is out of line

5. [*Dissenter name*] is trying to get more status

6. [*Dissenter name*] is challenging me

Similarity violations. Participants were asked to rate their agreement on a 1-7 (1= not at all, 7 = very much) with 4 items tapping into similarity. Items included:

1. [*Dissenter name*] is similar to me

2. [*Dissenter name*] is different from me (reverse-coded)

3. [*Dissenter name*] and I have a lot in common

4. [*Dissenter name*] and I are on the same page.

Relationality violations. Participants were asked to rate their agreement on a 1-7 (1= not at all, 7 = very much) with 6 items tapping into relationality violations. Items included:

1. [*Dissenter name*] is disruptive to the group

2. [*Dissenter name*] has poor social skills

3. [*Dissenter name*] doesn't care about the group

4. [*Dissenter name*] doesn't care about relationships

5. [*Dissenter name*] is disconnected from the group

6. [*Dissenter name*] is jeopardizing the group's harmony

Reliability and validity. Factor analysis results (using Principal Axis factoring and Direct Oblimin rotation) are reported in Table 2. Distinct factors emerged for backlash, femininity, masculinity, status violations, relationality, and similarity. Further, the vast majority of items loaded on the expected factor (34 out of 38 total items). One item (*well-informed*) did not load above .30 on any factor and 3 items loaded on factors that did not correspond to the appropriate scales (*competent* loaded on the status factor, *work with on another project* loaded on the femininity factor and *intelligent* loaded on the backlash factor). Although these items loaded on factors that did not correspond to the appropriate scale, they were retained for analysis given that they were theoretically consistent with the factors. The results reported below did not change when the items were omitted. Cronbach's α values for all scales ranged between .83 and .93 (see Table 3).

Qualitative measures. A single qualitative item was included, in which participants were asked to describe their general impression of the dissenter. This data

was explored analyzed using Pennebaker's Linguistic Inquiry and Word Count Program (LIWC; Pennebaker, Francis, & Booth, 2001). LIWC calculates the proportion of text corresponding to pre-defined categories. The LIWC internal dictionary has over 70 categories including function words (e.g., pronouns), and words tapping into social (e.g., family, friends) and psychological (e.g., positive and negative emotion) categories. A complete list of categories and information on the reliability of LIWC measures are available in Table 4.

I chose categories to explore that focused on negative (versus positive) emotional reactions toward the dissenter, a focus on the deficiencies of the dissenter, an impersonal attitude toward the dissenter, and a focus on the collective. Negative (vs. positive) emotional reactions, a focus on dissenter deficiencies, and an impersonal attitude toward the dissenter serve as implicit measures of backlash, while the focus on the collective taps into feelings of group identification. Categories of interest to the current study included the following:

Negative emotion words. This category includes words that convey a negative attitude toward the dissenter such as annoying, pushy, difficult, arrogant, fight, disagree, and selfish.

Positive emotion words. This category includes words that convey a positive attitude toward the dissenter such as intelligent, thoughtful, determined, efficient, supportive, and wise.

Negating. This category includes negating words (i.e., those that indicate the opposite or absence of something) and thereby implies a focus on what is lacking (i.e., deficient). Example words include no, not, none, can't, won't, doesn't, and several others.

Third person singular pronouns. This category includes words such as she, he, herself, himself, his and her. The use of third person pronouns can indicate an impersonal or distant attitude toward an individual (Wales, 1996).

First person plural pronouns. This category includes words such as we, us, and our, and indicates a collective focus (i.e., a focus on the group; Chung & Pennebaker, 2007).

Manipulation checks. Two manipulation checks were presented. One asked the participant to recall the gender of the dissenter while the other asked the participant to recall the gender of the other two members of the group. A pilot test of $N=80$ participants revealed that 99% of participants were able to correctly identify the gender of the dissenter and that 86% participants were able to correctly identify the gender(s) of the other group members.

Exclusion criteria. Participant responses were examined for completeness and coherence. Twenty participants were excluded for failing to complete the majority of the study or for providing incoherent responses (e.g., gibberish or other nonsensical responses to qualitative questions).

Results

Descriptives. Means, standard deviations, and bivariate correlations for demographics and study variables are presented in Table 3. Participant age correlated significantly with backlash ($r(281)=.-130, p<.05$) and status violations ($r(281)=-.153, p<.05$). Data were analyzed with and without controlling for age and results were the same for both sets of analyses; below, the analyses are reported without controlling for age.

Tests of hypotheses. Hypothesis 1 proposed that women who dissent would receive greater penalties than men who dissent. Therefore, I first examined main effects of dissenter gender. A T-Test comparing backlash directed toward female (*M*=3.46, *SD*=1.10) and male dissenters (*M*=3.46, *SD*=1.10) was not significant, *t*(279)=.016, *p*=.987. Therefore, Hypothesis 1 was not supported in Study 2. Evaluations of dissenter femininity, masculinity, competence, status violations, similarity, and relationality also did not differ between male and female dissenters (means and standard deviations for these measures are displayed in Table 5).

Hypothesis 2 proposed that women who dissent in male-dominated and female-dominated groups would receive more backlash than women who dissent in mixed-gender groups and that there would be little difference in backlash for men whether they were in male-dominated, female-dominated, or mixed gender groups. A 3 (group composition: female-dominated, male-dominated, and mixed gender) by 2 (dissenter gender: female versus male) ANOVA revealed that the group composition and dissenter gender did *not* interact to predict backlash. Hypothesis 3 proposed that, in the case of female dissenters, gender stereotype and status expectation violations would be relevant in all groups but that violations of status expectations would be exacerbated in male-dominated groups while violations of similarity and relational expectations would be exacerbated in female-dominated groups, whereas men who dissented would be evaluated similarly in female-dominated, male-dominated and mixed-gender groups. A 3 (group composition: female-dominated, male-dominated, and mixed gender) by 2 (dissenter gender: female versus male) ANOVA revealed that the group composition and dissenter gender did not interact to predict any of these measures.

Indirect measures of dissenter evaluations (e.g., LIWC analyses), however, revealed some differences across the conditions. Analyses examining qualitative data demonstrated a significant main effect of dissenter gender on the use of singular third person pronouns (e.g., she, he) in descriptions of the dissenter. Specifically, participants used more third person singular pronouns when describing female dissenters (M=10.03, SD=6.59) than male dissenters (M=8.27, SD=5.04; t(279)=2.49, p=.013).

However, this main effect should be interpreted in light of the fact that the ANOVA comparing the six conditions was also significant for the use of third person singular pronouns, F(5,175)=4.47, p=.001. Analyses using the Scheffé post hoc criterion for significance revealed that participants in female-dominated groups used more third person singular pronouns when describing female (M=12.49, SD=6.83) versus male (M=5.99, SD=4.95) dissenters (p=.008). In addition, participants in female-dominated groups also used more third person singular pronouns when describing female dissenters than did participants in male-dominated groups when describing female dissenters (M=7.53, SD=3.82, p=.023). Descriptives for the other 3 conditions are as follows: Mixed gender with female dissenter (M=10.09, SD=6.47), mixed gender with male dissenter (M=3.92, SD=4.82), and male-dominated with male dissenter (M=3.37, SD=5.54). What this means is that participants in female-dominated groups were more likely to label female dissenters as "she," but were more likely to refer to male dissenters using his name (as indicated in the scenario) or to simply not use a subject identifier in the sentence. The use of a pronoun versus a name may imply a more distant and impersonal focus on female relative to male dissenters.

Exploratory analyses. Given the lack of support for Hypotheses 1-3, I explored alternative ways of analyzing the data to further examine relationships between dissenter gender, group composition, and backlash. Given that my hypothesis was that both male- and female- dominated groups should exhibit harsher treatment toward female versus male dissenters, I collapsed the female- and male-dominated conditions into one gender-dominated condition and conducted a two-way ANOVA examining group composition (gender-dominated versus mixed gender) by dissenter gender (male versus female).

The table below illustrates the four conditions created by the 2 (group composition gender-dominated versus mixed gender) by 2 (dissenter gender: male versus female) design, each with a corresponding letter label (a, b, c, or d) and abbreviations that correspond to the experimental conditions displayed in the table on p. 56. Pairwise comparisons examining the evaluation of female and male dissenters in gender-dominated groups (cells a vs. b) versus the evaluation of female and male dissenters in mixed gender groups were conducted (cells c vs. d). These are the primary comparisons of interest. The symbols (greater than and equal to) represent the relative amount of backlash incurred by dissenters across conditions. Pairwise comparisons examining the evaluation of female dissenters in gender-dominated and mixed gender groups (cells a vs. c) versus the evaluation of male dissenters in gender-dominated and mixed gender groups (cells b vs. d) were also conducted.

Condition	Female Dissenter	Male Dissenter
Gender-Dominated	a (FFFF &	b (FFFM &

>

=

	MMMF)	MMMM)
Mixed Gender	c (Mixed F)	d (Mixed M)

Results demonstrated that this interaction was not significant for the amount of backlash (as measured by the 6 item scale) received by the dissenter, nor for any of the other composite scales (femininity, masculinity, etc.). A trend emerged for other measures, and in particular, the use of negating language (words like doesn't, isn't, can't, won't) in describing the dissenter ($F(3,277)=3.65$, $p=.057$), which is particularly interesting given the implicit nature of this measure. Participants in gender-dominated groups were more likely to describe female dissenters using negating language (cell a: $M=3.79$, $SD=3.51$) than male dissenters (cell b: $M=2.60$, $SD=3.12$; $F(1,277)=2.879$, $p=.091$), while participants in mixed gender groups used similar amounts of negating language to describe female (cell c: $M=2.40$, $SD=3.65$) and male dissenters (cell d: $M=3.08$, $SD=3.71$; $F(1,277)=.992$, $p=.320$). Participants in gender-dominated groups (cell a) also used more negating language when describing female dissenters than did participants mixed gender groups (cell c) when describing female dissenters, $F(1,277)=4.406$, $p=.037$.

Negating language involves the use of words like *not, doesn't, won't* and example comments included: [The dissenter] "*doesn't* want to go along with what the group says," "*not* the best team player," and "*isn't* worried about upsetting us." The use of negating language may indicate that participants were focusing on what female dissenters were *lacking*, implying a focus on the deficiencies, rather than contributions, of female dissenters

Discussion

Results from Study 2 did not provide support for Hypothesis 1 and provided little support for Hypotheses 2 and 3. Results examining composite measures did not reveal increased backlash toward female dissenters (Hypothesis 1) nor a substantial effect of group composition on reactions to female dissenters (Hypotheses 2 and 3). As mentioned, Study 1 found evidence of increased backlash toward female (vs. male) dissenters, but this was not replicated in Study 2. Study 1 also demonstrated a significant participant gender by dissenter gender interaction, which failed to emerge in Study 2. Study 2 entailed a markedly more complex design, as it manipulated group gender composition and contained several more measures. It is possible that the increased complexity and length of the study contributed to participant fatigue and/or lack of interest, which attenuated results.

Although results were generally unsupportive of Hypotheses 1-3, results from qualitative analyses provided some initial evidence of increased backlash toward female dissenters.

It is particularly interesting that participants in female-dominated groups were more likely to refer to a female (than male) dissenter with third person pronouns (e.g., "she" and "her") when describing her. In contrast, when describing the male dissenter, participants in female-dominated groups almost always used his name (Jason). This is interesting because while a name is very much an individual identifier, the use of terms like "she" and "her" convey a more impersonal focus. In other words, this implies that female participants identified male dissenters as *individuals*, but female dissenters as more distant and abstract. This may be an implicit form of backlash.

Exploratory analyses revealed that participants in gender-dominated groups were especially likely to describe female (vs. male) dissenters with negating language, whereas participants in mixed gender groups exhibited no difference in their use of negating language used to describe female versus male dissenters. The use of negating language may imply a focus on dissenter deficiencies (i.e., what she is *not* rather than what she is). For example, several participants mentioned indicators of communality in their descriptions of the dissenter, such as "selfish and *doesn't* want to go along with what the group says," and "*doesn't* understand working with others." This is consistent with work on the *implied communality deficit* (Heilman, Block, & Martell, 1995; Heilman & Chen, 2005; Heilman & Okimoto, 2007; Parks-Stamm, Heilman, & Hearns, 2008), which demonstrates that women who behave in stereotypically masculine ways are often perceived as cold and lacking social skills. More broadly, the use of negating language suggests that people may focus on what female dissenters are *not*, rather than what they are. This may imply that dissenting women are seen as failing to live up to some standard- perhaps that of a 'good woman.'

It should be stressed that effects only emerged for these two qualitative items. As such, results are not particularly robust and should be interpreted with caution. Study 2 suffers from the same limitations as Study 1 regarding limited realism and ecological validity. These factors may have contributed to the weak results. It is also possible that the manipulation of group composition was not especially salient. The manipulation simply involved reading the names of group members once. Participants may have regarded this information as irrelevant and therefore attended little to it, which would explain the weak effects that emerged for group composition. As noted, the increased

complexity in terms of the additional manipulation (group composition) and measures may have contributed to participant fatigue or lack of interest, which could have also resulted in weak findings.

The lack of stronger results may also be due to the fact that the scenario described a relatively weak (i.e., ambiguous) situation (Mischel, 1968). As mentioned, the scenario provided no information regarding the manner in which the dissenter expressed their disagreement. This was intentional, as the purpose of this study was to examine how people construe women and men who dissent solely on the basis of their gender and the social context. However, it is possible to dissent in a number of ways and the current design did not take this into account (although manner of dissent examined in Study 4). Perhaps a stronger effect of group composition would have emerged if participants were told that the dissenter disagreed in an aggressive manner.

In sum, Study 2 did not provide compelling support for Hypotheses1-3 and did not replicate Study 1 findings, but did provide preliminary evidence that female dissenters may incur more severe consequences than male dissenters. I now turn to women's awareness of these dissent consequences, the focus of Study 3.

Chapter 6: Women's Awareness of Dissent Consequences (Study 3)

The goals of third study were to 1) examine the extent to which women are aware of consequences they may incur by dissenting in groups of varying gender composition and 2) examine women's awareness of the mechanisms that account for these consequences in each group. This study employed a widely used hidden profile information-sharing task, ACME Investments (McLeod et al., 1997). In this task, the participant is part of a group that must make a decision regarding an investment. The participant is given information that differs from other group members' information, thus putting the participant in a position to dissent. The ACME Investments task was originally developed to examine the expression of minority arguments in face-to-face versus computer-mediated group discussions (McLeod et al., 1997). It has since been adapted to examine a range of phenomena. For example, Phillips and Loyd (2006) used the task to examine how the degree of surface-level similarity between group members affected group decision-making when a social majority member dissented, while White (2008) examined whether the cognitive appraisal of emotion (challenge versus threat) moderated the effect of solo gender status on performance on recall and math tests. Study 3 was designed such that the participant was placed in a position to dissent and then answered a series of questions regarding her attitudes toward dissenting and anticipated consequences. The study included three conditions of group composition: female-dominated, mixed gender, and male-dominated. Study 3 tested the following hypotheses:

Hypothesis 4: Women will anticipate more backlash for dissenting in female- and male-dominated groups than in mixed gender groups.

Hypothesis 5: Women will anticipate that members of male-dominated, female-dominated and mixed gender groups will perceive them as violating different types of expectations and to varying degrees. While women will anticipate that others will perceive them as violating gender stereotypes and status expectations in all groups, in male-dominated groups, women will anticipate that members will perceive them as committing especially severe status violations whereas in female-dominated groups, women will anticipate that members will perceive them as violating similarity and relationality expectations.

It should be noted that while Studies 1 and 2 included both female and male participants as in the role of the dissenter, Studies 3 and 4 only examined female participants in this role. It was important to include dissenting men in Studies 1 and 2 to examine a main effect of gender on reactions to dissenters. However, in Studies 3 and 4, I limited my examination to dissenting women, who are the focal population of the current work.

Method

Participants. Study 3 involved an online group discussion paradigm deployed using Mechanical Turk. An priori power analysis (calculated using G*Power 3.1) with a large effect size (f=0.40), recommended power ($1-\beta$=0.80) and an error probability of α = .05 revealed a necessary sample size of 66 participants. Participants included 72 working women residing in the United States with a mean age of M=33.43, SD=13.41 years and an average of M=12.51, SD=11.90 years of work experience. Participants were predominantly Caucasian (78.69%), followed by Asian and Asian American (9.84%), African American (6.56%), Hispanic (3.28%), and mixed race (1.64%).

Design. Study 3 involved three conditions of group composition: female-dominated, male-dominated and mixed gender. Group composition was manipulated by assigning group members male or female names (as in Study 1). As mentioned, a female participant was always in the dissenter position. In female-dominated groups, the remaining three group members were all female. In male-dominated groups, the remaining three group members were all male. In mixed gender groups, the remaining three group members included two men and one woman.

Procedure. Participants were told that they were going to be discussing a group decision-making task with three other Mechanical Turk users in an online "conference room." In reality, the other Mechanical Turk users did not exist (the participant simply read a pre-programmed conversation between these ostensible other individuals). Participants received instructions explaining the ACME Investments task (described below) and were asked to provide a private rank ordering of the companies.

The central task used is this study was an adaptation of a hidden profile task called ACME Investments (McLeod, Baron, Marti, and Yoon, 1997). In this task, participants are asked to assume to role of a member of the board of directors of the ACME Investments Company. Their task is to evaluate three companies available for acquisition and to identify which company is the best. They are given profiles of each of the three companies, which include financial opinions of in-house and external financial analysts, information on the company's business strategy, strength of its management team, its market position, and its human resources practices. The investment criteria for evaluating the companies include long-term financial return, the degree of risk tolerated, the quality of management, and general strategy and business policies.

The original task as designed by McLeod et al. (1997) includes four participants, each of whom receives information about the three companies. Three participants receive *incomplete* information that leads them to believe that Company B is the best investment, then Company C, and then Company A. The remaining participant receives *complete* information that shows Company A to be the best investment, Company C to be the next best, and Company B to be the least desirable of the three. This creates a situation in which one member (i.e., the dissenter) holds a different opinion than the rest of the group members. Task materials were simplified slightly from the original design (the original task was designed for use with MBAs and is highly detailed and complex. I therefore simplified it for use with my samples). Complete and information packets are available in Appendix A.

After reading task instructions, participants were asked to provide a *private* rank ordering of the companies. They were told that this information would not be displayed to their group members. This information was critical to collect because it served as a way of assessing the participant's understanding of the task (which is further described below). Subsequently, the participant provided additional information about themselves (including their first name, for the purposes of believability because the names of their ostensible group members are displayed). Then, participants were directed to a mock conference room. The conference room displayed an 'attendee' list, which listed the names of the ostensible other participants. At first, only two attendees were listed, in addition to the participant. After 2 minutes, the fourth ostensible attendee joined the conference room. This waiting time was included for purposes of believability.

As a cover story, participants were told that researchers were interested in examining a group decision-making technique in which group members enter a group conversation at different points. Participants were told that the point at which they enter the conversation would be randomly determined (although in reality the participant was always the last to be invited to the conversation). This was necessary so that the participant could witness the conversation between their other group members and realize that they were in a position to dissent.

Once all four attendees had joined the conference, a prompt announced that two attendees were active in the conversation. Pre-programmed text appeared on the screen, giving the appearance that the two attendees were conversing with each other. After a few minutes, the third attendee joined the conversation. After a few more minutes of witnessing the conversation, the participant received a notice that they were about to join the conversation, but that they needed to answer some questions first. Participants then answered a series of questions regarding how they felt about expressing their opinion to the group and how they expected to be perceived by the group (participants were told that their responses would not be visible to their group members). After completing these measures, the participant received a notice that the conference had ended. They then completed a manipulation check, suspicion check, and were debriefed. The program was piloted extensively to ensure that it was clear and believable. Screen shots of the conference are available in Appendix B.

Conference conversation development. As mentioned, the participant witnessed a conversation between their three ostensible group members, which displayed a preference for company B over Company A. The text for this conversation was created

based on two pilot instant message conversations between undergraduate students at a large Mid-Atlantic University. Three undergraduate participants were brought into the lab and provided with the *incomplete* information packets (which contain information that would lead participants to believe that Company B is a better choice than Company A). Participants were told that they would discuss the task using GChat (an instant messaging program). All three participants were given *incomplete* information packets so as to facilitate a conversation in which three people displayed a preference for B over A (as this was precisely the conversation the dissenter would witness in the actual study). At first, two participants discussed the task while the third participant witnessed the conversation. Then, the third participant was told to join the conversation. This mirrors the progression of the conversation in the actual study. Text from two of these pilot conversations was adapted to create the conversation used in the study. The conversation was piloted extensively to ensure that dialogue was clear and believable in terms of timing and language used. Text and timing for the conversation read (names are from the mixed gender condition):

> [2 sec]
> **David**: hey…
> [4 sec]
> **Sarah**: haha… hi
> [7 sec]
> so… should we start with how we ordered the companies?
> [12 sec]
> **David**: OK I placed company B "Power Energy" as the my top choice.
> [14 sec]
> they have a high probability to return our investment
> [16 sec]
> and they also dominate the market share in Energy
> [2 sec]
> **Sarah**: yeah
> [8 sec]
> I put A as last "Whiz Bang"

[4 sec]

Sarah: me too

[14 sec]

its kind of a risky investment as far as our return goes

[12 sec]

their management is also irresponsable

[10 sec]

company C seems kind of in the middle. tt seems stable I think.

[10 sec]

what did you think?

[8 sec]

Sarah: I also put B first

[10 sec]

it shows good potential for growth

[5 sec]

David: right

[18 sec]

Sarah: plus I think whatever issues it has aren't as bad as the negative stuff about company A and C

[4 sec]

David: yeah

[8 sec]

Sarah: and C was also my number 2.

[22 sec]

I mean A and C were similar, but I thought that A was worse because it's growth is only 5% and there is also a concern about the low product awareness and the priceing

[8 sec]

[Message saying that "Ryan" has entered the conversation]

[7 sec]

Ryan: Hi

[3 sec]

David: Hey there

[10 sec]

I agree that B is definatly the best

[15 sec]

I like that its an industry leader and is making good profits so I think its an obvious good choice.

[10 sec]

but I wasnt sure between A and C.

[25 sec]

Sarah: C seemed better to me b/c although the employees are mostly unskilled, the turn over is low.. meaning that the company has a high employe- retention rate.

[18 sec]

David: and it says that growth sales are low for company A which is bad is you ask me

[22 sec]

Sarah: plus As management team is so young, I just think they don't know what theyre doing really

[30 sec]

Ryan: OK, I guess neither A or C are perfect, but C does seems to be sort of 'tried and true'. It'ss been around for a lot longer than A. I think A is more risky. So A does seem like the worst .

[5 sec]

[At this point, the participant received the prompt that they will be allowed to enter the conversation shortly].

Measures. Participants completed measures designed to assess how they expected to be evaluated (in terms of backlash, gender stereotype violations, status violations, similarity, relationality, and courage) if they shared their opinion with the group, how much psychological safety they perceived in the group, and demographic information.

Backlash. An adapted set of the same 6 items from Study 1 were included for this measure. Statements were reframed so as to assess how the participant expected their group members to evaluate them (e.g., if you were to express your opinions to the group, how much do you think your group members would enjoy having you in their group?).

Gender stereotype violations. An adapted set of the same 6 femininity and 7 masculinity items from Study 1 were included for this measure. Statements were reframed so as to assess how the participant expected their group members to evaluate them. The same 3 competence items from Study 1 were also included (and statements were reframed so as to assess how the participant expected their group members to evaluate them).

Status violations. An adapted set of the same 6 status violation items from Study 1 were included for this measure. Statements were reframed so as to assess how the participant expected their group members to evaluate them.

Similarity violations. An adapted set of the same 4 similarity items from Study 1 were included for this measure. Statements were reframed so as to assess how the participant expected their group members to evaluate them.

Relationality violations. An adapted set of the same 6 relationality items from Study 1 were included for this measure. Statements were reframed so as to assess how the participant expected their group members to evaluate them.

Courage. Participants rated 2 items tapping into expected evaluations as courageous on a 1-7 scale (1= not at all, 7 = very much). Items were framed as "if you were to express your opinions to the group, group members would think you are…" and included: willing to take a stand and courageous.

Psychological safety. Participants rated their agreement with 5 items tapping into how much psychological safety they perceived (adapted from Bowles, Babcock and Lai's (2007) measure of nervousness) using a 1-7 scale (1= not at all, 7 = very much). The statements were worded, "I feel ____ about expressing my opinions to the group" and the items included anxious (reverse-coded), nervous (reverse-coded), embarrassed (reverse-coded), relaxed, and comfortable.

All scales exhibited good reliability with Cronbach's α values ranging from .86 to .96 (see Table 6).

Exclusion criteria. A total of 98 women participated in the experiment, 26 of whom were removed. Participants were excluded sequentially based on task understanding, attention checks, a manipulation check, and a suspicion check.

Task understanding. Prior to joining the conversation, participants were asked to provide private a rank order of the companies discussed in the ACME task. They were

told that this information would not be displayed to their group members. The participant's ranking of companies conveyed whether or not they understood the task and furthermore, whether they were actually in a position to dissent against their group members. The information provided to the participant identifies company A as the best choice and B as the worst choice. As such, placing B above A indicates that a participant did not fully understand the task. Furthermore, the choice of A over B is necessary for the participant to be in a dissenting position (as the conversation they witness among their group members expresses a clear preference for B over A). Therefore, if a participant ranked company B over Company A, she was not in a position to dissent because she simply agreed with her group members (that B was the best choice). As per McLeod et al. (1997), these participants were excluded (N=19). This proportion of correct to incorrect company rankings (roughly 80% to 20%) is consistent with McLeod et al.'s (1997) proportion. The task is somewhat complex, so the fact that roughly 20% of participants reached the incorrect conclusion should not be alarming.

     Attention checks. Two attention checks were embedded in the survey, which instructed participants to indicate a specific number as their answer to the question. Participants who failed both attention checks were excluded (N=2).

     Manipulation check. One manipulation check was included, which asked the participant to recall the genders of the other three participants. All remaining participants passed this manipulation check.

     Suspicion check. At the conclusion of the experiment, participants were asked "Do you have any comments about this study? Any feedback about the task or questions would be appreciated." If participants reported that they thought the chat might be fake or

that the other participants didn't really exist, they were marked as suspicious and excluded from the experiment (*N*=5).

Results

      Descriptives. Means, standard deviations, and bivariate correlations for demographics and study variables are presented in Table 6. Years of work experience correlated positively with psychological safety ($r(72)=.288$, $p=.014$, negatively with expectations of backlash ($r(72)=-.251$, $p=.034$) and positively with expected relationality evaluations ($r(72)=.276$, $p=.019$). These relationships may be due to the fact that increased time in the workplace often results in increased exposure to high power women, who often display typically masculine behaviors (Tinsley & Amantuallah, 2008). This increased exposure to atypical women may serve to buffer against the expectations of backlash directed toward women who dissent. However, results did not change after controlling for work experience, thus I report results without controlling for work experience.

      Tests of hypotheses. Hypothesis 4 proposed that women would anticipate more backlash for dissenting in female- and male-dominated groups than in mixed gender groups. A one-way ANOVA revealed no differences between expectations of backlash in female-dominated, male-dominated, and mixed gender groups. Hence, hypothesis 4 was not supported.

      Hypothesis 5 proposed that women would anticipate that members of male-dominated, female-dominated and mixed gender groups would perceive them as violating different types of expectations and to varying degrees. More specifically, women would anticipate that others would perceive them as violating gender stereotypes and status

expectations in all groups, but in male-dominated groups, women would anticipate that members would perceive them as committing especially severe status violations whereas in female-dominated groups, women would anticipate that members will perceive them as violating similarity and relationality expectations. Results from a one-way ANOVA demonstrated a significant effect of group composition on how participants expected to be perceived in terms of femininity ($F(3,68)=5.86$, $p=.004$), status violations ($F(3,68)=3.61$, $p=.032$) and similarity ($F(3,68)=4.72$, $p=.012$).

More specifically, women expected to be evaluated as the *least* feminine in female-dominated groups ($M=2.89$, $SD=1.60$), followed by male-dominated groups ($M=3.30$, $SD=1.44$) and then mixed gender groups ($M=4.32$, $SD=1.31$). Analyses using the Scheffé post hoc criterion for significance indicated that the difference between female-dominated and mixed gender groups was significant at $p=.005$ while the difference between male-dominated and mixed gender groups approached significance at $p=.067$. The difference between female- and male-dominated groups was not significant ($p=.632$).

Similarly, women expected to be perceived as committing the most severe status violations in female-dominated groups ($M=4.42$, $SD=1.40$), followed by male dominated groups ($M=3.59$, $SD=1.55$) and then mixed gender groups ($M=3.33$, $SD=1.51$). Analyses using the Scheffé post hoc criterion for significance indicated that the difference between female-dominated and mixed gender groups was significant at $p=.046$. The difference between male-dominated and mixed gender groups was not significant ($p=.839$), nor was the difference between female- and male-dominated groups ($p=.150$).

Finally, women expected to be perceived as least similar to members in female-dominated groups (*M*=1.93, *SD*=1.13), followed by male-dominated groups (*M*=2.53, *SD*=1.36), and then mixed gender groups (*M*=3.13, *SD*=1.57). Analyses using the Scheffé post hoc criterion for significance indicated that the difference between female-dominated and mixed gender groups was significant at *p*=.012. The difference between male-dominated and mixed gender groups was not significant (*p*=.324), nor was the difference between female- and male-dominated groups (*p*=.302).

Results were not significant for psychological safety, nor for expected perceptions of dissenter masculinity, competence, relationality, and courage. Means and standard deviations for these variables are displayed in Table 7.

Discussion

These results showed that women anticipated more backlash for dissenting in female-dominated groups than in mixed gender groups, with male-dominated groups falling somewhere in between. More specifically, women expected to be evaluated as less feminine, committing the greatest status violations, and as less similar in female-dominated groups than in mixed gender groups. Although I hypothesized that women would anticipate greater penalties in *both* female- and male-dominated groups when compared to mixed gender groups, this was only the case for female-dominated groups.

That women expected increased backlash from other women parallels findings from Study 1 that female participants exhibited increased backlash (relative to male participants) toward female dissenters, in addition to the growing body of work on female-to-female backlash at work. Study 3 demonstrates that women appear to have some awareness that dissenting again other women is likely to result in severe

consequences. As such, it appears that women are somewhat calibrated to context-dependent consequences of dissenting—that is, their expectations match reality when it comes to anticipating backlash for dissenting against other women.

Further, women were able to anticipate violating specific *types* of expectations (e.g., similarity) that are especially important in female-dominated groups speaks. This suggests that women have some awareness of the mechanisms that underlie backlash consequences in groups of all women. The finding that women anticipated lower similarity ratings in female-dominated groups (than in mixed gender groups) is especially compelling (and consistent with Hypothesis 5, which proposed that similarity was a key concern in female-dominated groups). This may suggest some awareness of the *black sheep* effect. That is, the fact that expected similarity violations were especially severe when women were in female-dominated groups may indicate that women are sensitive to the fact that similarity expectations are higher in groups of similar others (i.e., other women).

As mentioned, women in female-dominated groups expected to be perceived as less feminine than women in mixed gender groups, but my original theory proposed that gender stereotype violations operate similarly across all groups. However, there is reason to believe that femininity expectations may be higher in female-dominated groups (than in mixed gender and male-dominated groups). People assume shared deep-level similarity based on surface-level characteristics (e.g., Allen & Wilder, 1979; Chen & Kenrick, 2002; Phillips, 2003). It therefore follows that people would expect group members to display attitudes and behaviors representative of the group in general. When applied to women, this would translate to feminine attitudes and behavior. Therefore, it

makes sense that femininity violations were especially salient in female-dominated groups.

The finding that women in female-dominated, but not male-dominated, groups expected to expected to be perceived as violating status expectations more than women in mixed gender groups was unexpected (as I had proposed that status violations would be especially egregious in male-dominated groups). However, this finding is supported by recent work showing that women, in particular, are averse to women who defy others (Salmon et al., 2011), which is very much a behavior reserved for high status actors. Further, given that status and gender are necessarily confounded, displays of status also violate prescriptions of femininity, which could also result in backlash from other women.

Group composition did not affect all variables of interest, like relationality violations, for example. Given that women expressed the most concern around dissenting in female-dominated groups and the relationality expectations were proposed to be especially salient in these groups, it is curious that results did not emerge for this variable. The online nature of the study may partially explain why effects failed to emerge for relationality violations. Communications tend to be less personal when conducted via lean (as opposed to rich) media (Daft & Lengel, 1984). As such, the relational (i.e., person to person) context of the current study may have been less important to participants, even in female-dominated groups. Therefore, any violations of group harmony would seem less costly, therefore attenuating anticipated consequences for relationality violations.

Like Studies 1 and 2, this study was conducted online. As such, participants did not interact face-to-face with the ostensible other participants, but rather through electronic media. This design does not therefore fully capture how dissent processes might unfold in the workplace, where most business is still conducted face-to-face. However, virtual communication is becoming increasingly popular in the workplace (e.g., telecommuting), a trend that will likely continue. Consequently, this study does mirror a less common, but still substantial, type of work environment (i.e., the virtual environment).

An additional limitation concerns the fact that the participant and ostensible other participants were strangers in the current study. However, people who work together tend to have pre-existing relationships, for which the current study does not account. The existing relationship between group members could mitigate or exacerbate anticipated backlash in the case that these relationships are positive or negative, respectively. In this sense, Study 3 has limited ecological validity.

In addition, Study 3 did not examine how women behaved after reporting how they expected to be evaluated for dissenting. That is, the experiment did not provide women with a chance to dissent. The reasons for this were twofold. One was that asking women to report anticipated consequences for dissenting could alter their natural dissent behavior by making these consequences salient; as such, their subsequent dissenting behavior might not actually reflect how they would normally dissent. The other was simply logistical, as providing participants with a chance to dissent would have entailed making the computer program interactive (so that the participant could exchange messages with others) as well as highly complex (so that the participant could receive

tailored messages in response). These changes were prohibitively expensive, as they would have involved substantial programming time and expertise. However, women's actual dissenting behavior is examined in Study 4.

Finally, it should be noted that 20% of participants failed to reach the correct answer in the task. Although this limited my sample size somewhat, the use of a task in which the participant must develop an opinion for herself is much preferred over the use of a task in which the participant is *assigned* an opinion (as in Studies 1 and 2). Considering the information presented and arriving at a conclusion independently undoubtedly increases commitment to one's opinion, as well as the realism of the study.

In sum, results from Study 3 demonstrated that women may have some awareness of the situations in which dissenting is the most risky—in female-dominated groups. However, what remains unexplored is women's actual dissent behavior in groups of varying gender composition. This is the focal point of Study 4.

Chapter 7: Women's Dissent Behavior (Study 4)

Overview

Study 4 builds on findings from Studies 1, 2, and 3 by examining dissent processes in actual groups. The goals of Study 4 were to examine how the social context affects the quantity (amount) and quality (form) of dissent, as well as how this how this impacts group performance. Groups of varying gender composition (female-dominated, male-dominated, and mixed gender) engaged in the adapted ACME Investments task used in Study 3. A female participant was always placed in the "dissenter" role (i.e., received complete information regarding the companies). Because this is an intellective task, group performance can be seriously compromised when the dissenter does not share their information with the group. Specifically, Study 4 examined the following hypotheses:

> **Hypothesis 6**: Women will dissent less in female- and male-dominated groups than in mixed gender groups.

> **Hypothesis 7**: Female- and male-dominated groups will perform lower than mixed gender groups and the relationship between group composition and group performance will be mediated by dissent.

Study 4 also examined the notion that women might use more polite communication tactics and fewer impolite communication tactics when dissenting in female- and male-dominated groups relative to mixed gender groups and further, that polite (vs. impolite) tactics would be related to decreased backlash and improved group performance in female- and male-dominated groups relative to mixed gender groups. Finally, Study 4 provides an additional examination of Hypotheses 2-5 that women

should both incur and expect greater penalties in female- and male-dominated groups relative to mixed gender groups.

Method

  Participants. Participants included 228 undergraduate students at a large Mid-Atlantic University. Participants were recruited from a total of 10 undergraduate psychology courses. The sample included 143 women (62.72%) and 85 men (37.28%) with a mean age of M=19.90, SD=1.29. The racial background of the sample was as follows: 69.91% Caucasian, 12.39% Asian or Asian-American, 11.06% African American, 4.42% Hispanic, and 2.12% Multiracial or other. Participants were divided into a total of 57 actual groups, including 21 female-dominated, 14 male-dominated and 22 mixed gender groups. An priori power analysis (calculated using G*Power 3.1) with a large effect size (f=0.40), recommended power (1–β=0.80) and an error probability of α = .05 revealed a necessary sample size of 66 groups. As such, the current sample size is slightly below the recommended size (I will return to this point in the discussion).

  Materials. Study 4 used the same adaptation of McLeod et al.'s (1997) ACME Investments task used in Study 3. In this study, a female participant always received the complete information while the other three participants received incomplete information. As described in detail in Study 3, the incomplete information was designed to lead the three group members to conclude that Company B is the best choice for investment. However, the dissenter's information packet revealed that Company A was the best choice and the Company B was a very risky choice. As such, the dissenter was placed in a position to disagree with her group members.

Procedure. Upon arrival at the lab, participants were divided into groups of four. Groups were composed to avoid placing students from the same classes (or who arrived at the experiment together) in the same group so as to minimize the impact of pre-existing relationships in the experiment. One female participant in each group was assigned to the "dissenter" role (and received the complete information) while three other participants were assigned to majority member roles (and received incomplete information). Participants were not made aware of role assignments (i.e., they were not told that they received different information). Further, groups were composed such that a minority female was never assigned to the dissenter role (so as to avoid placing her in a "double minority" position).

After being seated in the experiment room, participants were told that they were going to engage in a group discussion task. Each participant was given a nametag and asked to write their first name on the tag and put it on. Participants then received individual instructions for the ACME Investments task (available in Appendix A). Participants were given 10 minutes to read over the materials and asked to privately record their ranking of companies (from best to worst) on the last page of their packet. This ranking was only visible to the participant (i.e., was not displayed to their group members). Participants' private ranking of the companies was crucial to collect because it indicated task understanding (further discussed below). Subsequently, participants were given 30 minutes to discuss the task and were told that they had to come to a consensus. The discussion was recorded via webcam and all dialogue was later transcribed. After the discussion was over (or after 30 minutes, whichever came first), participants were asked to complete post-discussion measures.

For the post-discussion measures, each of the three majority members (who received the *incomplete* information) was given a packet that read, "You have been assigned to evaluate: _____." A research assistant wrote the dissenter's name in the blank space on each packet. This was to minimize suspicion regarding the purpose of the experiment. The dissenter was given a different packet that asked about her experience during the discussion and how she anticipated being evaluated. Participants were not made aware that they received different post-discussion evaluation packets.

Measures. Measures from Studies 2 and 3 were adapted for use in Study 4. As mentioned, participants in the majority roles and dissenter role completed different post-discussion measures. However, demographic information was collected from all participants.

Measures completed by all participants. All participants provided demographic information (including gender, age, and race) and completed a measure to assess previous relationships with other group members. This measure asked each group member to rate on a 1-7 scale how well they knew each of the other three participants in the group (1= not at all, 7= very well). Values were averaged across members in each group to compute an overall value representing the extent of previous relationships among participants. This was included as a possible control variable.

Majority member measures. After the group discussion, majority group members completed measures to assess they evaluated the dissenter in terms of backlash, femininity, masculinity, competence, status violations, similarity, relationality, and courage. The items on these measures were identical to those used in Study 2 (with the

exception of courage, which was adapted from Study 3). Scales exhibited good reliability with Cronbach's α values ranging from .78 to .94 (see Table 9).

Majority members were asked to complete one qualitative item, which asked them to describe their general impression of the dissenter. This data was analyzed using LIWC. The same categories of interest from Study 2 were examined: negative emotion, positive emotion, negating, third person singular, and first person plural.

Each measure was aggregated to the group level by averaging the values for the three majority members in each group. See Table 8 for ICC(1) and ICC(2) values.

Dissenter measures. After the group discussion, the dissenter completed measures of anticipated evaluations in terms of backlash, femininity, masculinity, competence, status violations, similarity, relationality, courage, psychological safety and empowerment. The items on all measures were identical to those used in Study 3 and were framed as "to what extent do you think your group members perceive you as …" The empowerment measure included the following items: "I felt like my opinions could make a difference," "I felt like the group valued my opinions" and "I felt safe expressing my opinions to the group." Participants were asked to rate their agreement with these statements on a 1-7 scale (1= not at all, 7 = very much). Scales exhibited good reliability with Cronbach's α values ranging from .78 to .96 to (see Table 9).

The dissenter was asked to complete a single qualitative item, which asked her to describe her experience during the group discussion. This data was analyzed using LIWC. The same categories of interest from Study 2 were examined: negative emotion, positive emotion, negating, third person singular, and first person plural.

Group performance. As per McLeod et al. (1997), group performance was operationalized as a continuous variable ranging from 1-6 depending on how the group rank ordered the companies. For example, the optimal order of companies was A, then C, then B- this ranking received a score of 6. Consequently, ACB received a 5, CAB, received a 4, CBA, received a 3, BAC received a 2 and BCA received a 1. This is a measure of objective performance based on the hidden information.

Dissent. Dissent was measured using a custom LIWC dictionary. Custom dictionaries are created by assigning specific words to researcher-created categories. In this case, key words from the dissenter's information packet regarding Companies A and B were assigned to a single category. As such, this category captured the proportion of dissenter speech focused on Companies A and B. Dissenter discussion of Companies A and B is a proxy for dissent because any information the dissenter provided regarding these companies necessarily differed from that of their group members. Key words from Company C were excluded from the dictionary because that information was not unique to the dissenter (so any discussion of Company C did *not* imply dissent). Words included in the dictionary are listed in Appendix C. See Appendix D for a discussion and results of an alternative measure of dissent employed by McLeod et al (1997).

To ensure transcription quality, research assistants were provided with detailed instructions for how to transcribe the dialogue from the videos. Subsequently, each transcript was re-read (by a different research assistant) and compared with the original video of the conversation; any transcription mistakes or missing data were corrected through this process.

Communication style. The following polite and impolite communication tactics were examined in dissenter speech. Values for the categories below were calculated as the frequency of words in a given category spoken by the dissenter divided by the total amount of dissenter speech. In other words, category values reflect the percentage of total dissenter speech accounted for by the use of specific categories.

Assent. The assent category includes words such as *yes, yeah, okay,* and *alright.* The use of assent language implies the expression of agreement and is a polite communication strategy.

Negating. The negating category contains words such as *no, not, can't, won't,* and *shouldn't*. The use of negating language implies the expression of disagreement and is an impolite communication strategy.

Interrupting. This measure is the proportion of times the dissenter interrupted other group members over the course of the discussion relative to the total amount of dissenter speech (i.e., the number of interruptions divided by the total word count for the dissenter). An interruption was defined as when one person began to speak while another person was still speaking (i.e., when one person spoke over another), with the exception of single utterances of agreement with the speaker (e.g., "yeah" "uh-huh"). Interrupting indicates indifference toward the speaker and is an impolite communication strategy. A subset of 32 transcripts were coded for interruptions by two separate transcribers; these correlated at $r(32)=.97, p<.001$, thus indicating acceptable reliability.

Questions asked. This measure is the proportion of questions the dissenter asked over the course of the discussion relative to the total amount of dissenter speech. Asking questions is an indirect method of communicating and is polite in nature.

Negativity. The negativity category contains words such as *bad, loose, risk, mistake,* and *harmful.* The use of negativity implies a focus on the negative (as opposed to the positive). Expressions of negativity are impolite in nature.

Exclusion criteria. The original sample included 78 groups, of whom 21 were removed. The criteria for exclusion included task understanding, data completeness, and attention.

Task understanding. In order to create a situation in which the dissenter holds a minority opinion, two conditions must be met: 1) The dissenter must choose Company A and 2) the majority group members must choose Companies B or C (i.e., not A). If the dissenter chooses companies B or C over A, this indicates a lack of understanding of the task. More importantly, the choice of Company B places the dissenter in agreement with their group members (and thereby not in a position to dissent). Similarly, if the participant chooses Company C as their first choice, this facilitates agreement as opposed to dissent because all group members share the same information regarding Company C and could therefore easily arrive at consensus concerning Company C. A total of 6 groups were excluded because the dissenter chose B (N=3) or C (N=3) as their top choice.

If one of the majority members chooses Company A (and the dissenter chooses A, as they are supposed to), this changes the group dynamic in that it becomes as "two on two" (in which another group member shares the opinion of the dissenter) discussion rather than a "three on one" discussion (in which the dissenter holds a minority opinion). A total of 6 groups were excluded because a majority member chose A as their top choice.

Groups in which a majority member chose Company C were included due in to the fact that in all of these groups, the other two majority members selected Company B. As such, these groups were still characterized by a majority who disagreed with the dissenter (and no one who agreed with the dissenter). It could be argued that the choice of Company C indicates a lack of understanding for one member of the group, but due to the fact that these groups were always characterized by a majority who 1) understood the task and 2) disagreed with the dissenter, it was deemed appropriate to include these groups.

Data completeness. Data for an additional 7 groups was excluded due to technical problems that resulted in missing audio and video data for the group conversation (from which all qualitative measures, including dissent, were calculated). Although the pre- and post-survey data was available for these groups, this data was largely meaningless in the absence of information regarding dissenter behavior in the group. Therefore, these groups were excluded from analyses.

Attention. Finally, 2 groups were excluded for not taking the task seriously, which was indicated by the fact that they came to consensus in under 3 minutes whereas the average conversation length was roughly 17 minutes. In addition, examination of the transcripts from these conversations revealed that participants made explicit references to wanting to end the experiment as quickly as possible (e.g., "just put B so we can get out of here.")

Results

Descriptives. Means, standard deviations, and bivariate correlations for demographics and study variables are presented in Tables 9.

Tests of hypotheses. In what follows, I first examine the main effects of group composition on dissent, communication style, and performance. I then examine how group composition and communication interact to affect group performance. I then turn my focus to evaluations of the dissenter. I first examine how group composition and dissent interact to predict evaluations of the dissenter. I then examine group composition and communication style interact to predict evaluations of the dissenter. Finally, I examine anticipated evaluations of the dissenter. Again, I first examine how group composition and dissent interact to predict anticipated evaluations. I then examine how group composition and communication style interact to predict anticipated evaluations.

Effects of group composition on dissent (Hypothesis 6). Hypothesis 6 proposed that women should dissent less in female- and male-dominated groups than in mixed gender groups. Results demonstrated a significant effect of group composition on dissenting, $F(2,54)=4.30$, $p=.018$. Dissent was actually higher in female-dominated groups ($M=21.41$, $SD=4.71$) than in male-dominated groups ($M=17.79$, $SD=4.46$) and mixed gender ($M=17.62$, $SD=4.66$) groups. The difference between female-dominated and mixed gender groups was significant ($t(41)=2.654$, $p=.011$), as was the differences between female-dominated and male-dominated groups ($t(33)=2.278$, $p=.029$), but the difference between male-dominated groups and mixed gender groups was not. As such, Hypothesis 6, which had predicted that women in mixed gender groups should dissent more than women in female- and male-dominated groups was not supported[1].

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[1] It is important to note that the amount of dissenter speech overall (dissenter word count divided by total word count) did not vary significantly by group composition, $F(2,54)=1.81$, $p=.173$. That is, dissenters spoke equal amounts in female-dominated ($M=.35$, $SD=.14$), male-dominated ($M=.28$, $SD=.10$), and mixed gender groups ($M=.36$, $SD=.15$). As such, differences in amount of speech do not account for differences in amount of dissent in female-dominated, male-dominated and mixed gender groups.

Effects of group composition on communication. Women dissented more in female groups, and I next examined whether the use of language also varied as a function of group composition. That is, did women use different types of language when dissenting in different types of groups? Results revealed a significant effect of group composition on the use of assent words (indications of agreement such as "yes" and "okay"), $F(2,54)=3.31$, $p=.044$. Women used the most assent words in male-dominated groups ($M=4.34$, $SD=1.18$), followed by mixed gender groups ($M=3.31$, $SD=1.34$) and least in female-dominated groups ($M=2.90$, $SD=1.51$). The difference between male-dominated and female-dominated groups was significant ($t(33)=2.31$, $p=.027$); other comparisons were not.

Effects of group composition on performance (Hypothesis 7). Hypothesis 7 proposed that female- and male-dominated groups should suffer from decreased performance relative to mixed gender groups and that the relationship between group composition and performance would be mediated by dissent. Analyses revealed that, overall, groups did not differ significantly in terms of performance, $F(2,54)=2.09$, $p=.134$. Means were highest in the female-dominated groups ($M=4.05$, $SD=2.04$), followed by mixed gender groups ($M=3.36$, $SD=1.94$), and then male-dominated groups ($M=2.71$, $SD=1.64$). However, it should be noted that female-dominated groups did perform significantly better than male-dominated groups ($t(33)=-2.045$, $p=.049$), although other comparisons were not significant. Given that groups did not vary overall in performance, the test for dissent as a mediator between group composition and performance was not conducted. Hypothesis 7 was not supported.

To examine if dissent differentially affected group performance across different group compositions, I conducted stepwise regression examining main effects of dissent, group composition, and the interaction of the two on group performance. Two dummy variables were created for the group composition variable (a male-dominated group dummy variable, for which male-dominated groups received a value of "1" and female-dominated and mixed gender groups received a value of "0" and also a mixed gender group dummy variable for which mixed gender groups received a value of "1" and female- and male-dominated groups received a value of "0." As such, the female-dominated group was the referent group). These results are displayed in Table 10. As expected, dissent was positively related to group performance ($\beta=.567$, $p<.001$). Dissent did not interact with group composition to affect performance.

Interaction between group composition, communication, and performance. I also examined whether the way women dissented differentially affected performance across different group compositions. In other words, the finding that dissenters used different types of language (e.g., assent) in different groups prompted me to consider the possibility that different types of language might be differentially *effective* in different types of groups. Therefore, I examined group composition as a moderator between linguistic variables and group performance.

For these analyses, I first ran stepwise regression examining the effects of communication tactic (assent, negating, interrupting, asking questions, and negativity), group composition, and the interaction between the two on group performance. In the case that the interaction between group composition and a communication tactic was significant, I then conducted simple slopes tests to reveal the nature of the interaction. I

used O'Connor's (1998) SIMPLE-3 program for these simple slopes analyses. This program is designed specifically for use with a three-level categorical moderator and was thus appropriate for use with my data.

Both assent and negating exerted main effects (negatively) on group performance (β=-.328, p=.017 and β=-.306, p=.023, respectively). Group composition interacted significantly with the following communication tactics to predict group performance: interrupting, negating language, and the expression of negativity. Group composition did not interact with assent nor asking questions to predict group performance.

More specifically, the results showed that the effect of interrupting on group performance was moderated by group composition, $F(2,51)$=3.740, p=.030, ΔR^2=.119 (Table 11). Simple slopes analyses revealed that interrupting was negatively related to performance in female-dominated groups (β=-.446, $t(51)$=-2.215, p=.031), but unrelated in and mixed gender (β=.183, $t(51)$=.889, p=.378) and male-dominated (β=.417, $t(51)$=1.342, p=.185) groups.

Results also revealed a trend for the interaction of group composition and the use of negating language on performance, $F(2,51)$=3.084, p=.054, ΔR^2=.091 (Table 12). Simple slopes analyses revealed that the use of negating language was negatively related to performance in female-dominated groups (β =-.629, $t(51)$=-3.244, p=.002), but was unrelated to performance in mixed gender (β=-.199, $t(51)$=-1.00, p=.321) and male-dominated (β=-.231, $t(51)$=.772, p=.443) groups.

A trend also emerged for interaction between group composition and expressions of negativity on performance, $F(2,51)$=2.248, p=.12, ΔR^2=.074 (Table 13). Results from simple slopes tests mirrored those regarding the use of interrupting and negation: the

expression of negativity negatively predicted performance in female-dominated groups (β=-.474, t(51)=-2.315, p=.025), but was unrelated to performance in mixed gender (β=-.085, t(51)=-.408, p=.685) and male-dominated (β=-.062, t(51)=-.197, p=.573) groups .

To summarize, interrupting, negating, and expressing negativity (all impolite tactics) were negatively related to performance in female-dominated groups but unrelated to performance in mixed gender and male-dominated groups.

Interaction between group composition, dissent, and evaluations of the dissenter (Hypotheses 2 & 3). Hypotheses 2 and 3 proposed that penalties toward female dissenters should be exacerbated in female- and male-dominated groups relative to mixed gender groups. Study 4 allowed for an examination of these hypotheses, taking amount of dissent into account. This answers the question, do women receive more penalties for dissenting in different types of groups?

Stepwise regression looking at main effects of dissent, group composition, and the interaction of the two on backlash toward the dissenter and evaluations of dissenter femininity, masculinity, competence, status violations, similarity, relationality, and courage was conducted. Main effects of dissent emerged for masculinity (β=.303, p=.028), competence (β=.281, p=.048), and courage (β=.354, p=.010). Trends emerged for main effects of group composition on masculinity (F(2,54)=2.97, p=.06) and courage (F(2,54)=3.07, p=.055). Dissenters in female-dominated groups were perceived as the most masculine (M=4.86, SD=1.05), followed by dissenters in mixed gender (M=4.53, SD=.90) and then male-dominated groups (M=4.17, SD=.83). Dissenters in mixed gender (M=5.17, SD=.88) and female-dominated (M=5.16, SD=.60) were perceived as more courageous than in male-dominated groups (M=4.56, SD=.93).

The interaction between dissent and group composition on evaluations of the dissenter as courageous (Table 14) approached significance ($F(2,51)= 2.413$, $p=.10$, $\Delta R^2=.068$). Simple slopes analyses revealed that dissent was positively related to perceptions of the dissenter as courageous in mixed-gender groups ($\beta=.622$, $t(51)=3.385$, $p=.001$), but was unrelated in female-dominated ($\beta=.082$, $t(51)=.300$, $p=.765$) and male-dominated ($\beta=.211$, $t(51)=.958$, $p=.343$) groups. The interaction between dissent and group composition was not significant for any other measures (backlash, femininity, masculinity, competence, status violations, similarity, or relationality). Overall, Hypotheses 2 and 3 were not supported.

Interaction between group composition, communication, and evaluations of the dissenter. Given the previously discussed findings that group composition moderated the effects of language use on performance, I explored whether language use affected evaluations of the dissenter differentially across group composition conditions. That is, were dissent communication tactics related to different penalties directed toward the dissenter as a function of group composition?

Stepwise regression looking at main effects of communication tactics (assenting, negating, interrupting, asking questions, and expressions of negativity), group composition, and the interaction of the two on evaluations of the dissenter (backlash toward the dissenter and evaluations of dissenter femininity, masculinity, competence, status violations, similarity, relationality, and courage) was conducted. Several communication tactics exerted main effects on evaluations of the dissenter. More specifically, interrupting was negatively related to dissenter competence ($\beta=-.239$, $p=.072$) and similarity ($\beta=-.275$, $p=.043$). Assent was positively related to femininity

(β=.370, p=.009) and relationality (β=.267, p=.063) and negating was positively related to backlash (β=.249, p=.071) and negatively related to competence (β=-.285, p=.036).

Significant interactions between *interrupting* and group composition emerged for backlash toward the dissenter and perceptions of dissenter femininity, competence, status violations, similarity, and relationality. Significant interactions between *asking questions* and group composition emerged for backlash toward the dissenter and perceptions of dissenter femininity.

Interrupting. More specifically, the effects of interrupting on *backlash* toward the dissenter were moderated by group composition, $F(2,51)$=4.998, p=.010, ΔR^2=.151 (Table 15). Simple slopes analyses revealed that interrupting was positively related to backlash toward the dissenter in female-dominated groups (β=.698, $t(51)$=3.505, p=.001), but unrelated in mixed gender (β=-.083, $t(51)$=-.397, p=.693) and male-dominated (β=-0.030, $t(51)$=-0.117, p=.908) groups.

The effects of interrupting on evaluations of dissenter *femininity* were also moderated by group composition, $F(2,51)$=5.099, p=.010, ΔR^2=.158 (Table 16). Simple slopes analyses revealed that interrupting was negatively related to perceptions of dissenter femininity in female-dominated groups (β=-.619, $t(51)$=-3.483, p=.001), but unrelated in mixed gender (β=.115, $t(51)$=0.735, p=.466) and male-dominated (β=-.118, $t(51)$=-.060, p=.551) groups.

The effects of interrupting on evaluations of dissenter *competence* were moderated by group composition, $F(2,51)$=2.48, p=.094, ΔR^2=.079 (Table 17), although this effect did not reach significance at .05. Simple slopes analyses revealed that interrupting was negatively related to perceptions of dissenter competence in female-

dominated groups (β=-.548, $t(51)$=-2.882, p=.006), but unrelated in mixed gender (β=-.102, $t(51)$=-.493, p=.624) and male-dominated (β=-.002, $t(51)$=-.005, p=.996) groups.

The effects of interrupting on evaluations of dissenter *status violations* were moderated by group composition, $F(2,51)$=3.556, p=.036, ΔR^2=.116 (Table 18). Simple slopes analyses revealed that interrupting was positively related to perceptions of status violations in female-dominated groups (β=.437, $t(51)$=2.411, p=.020), but unrelated in mixed gender (β=-.251, $t(51)$=-1.157, p=.253) and male-dominated (β=-.112, $t(51)$=-.315, p=.754) groups.

The effects of interrupting on evaluations of dissenter *similarity* were moderated by group composition, $F(2,51)$=4.783, p=.012, ΔR^2=.146 (Table 19). Simple slopes analyses revealed that interrupting was negatively related to perceptions of similarity in female-dominated groups (β=-.680, $t(51)$=-3.801, p=.001), but unrelated in mixed gender (β=-.063, $t(51)$=-.225, p=.823) and male-dominated (β=-.007, $t(51)$=-.032, p=.975) groups.

Finally, the effects of interrupting on evaluations of dissenter *relationality* were moderated by group composition, $F(2,51)$=9.907, p<.001, ΔR^2=.274 (Table 20). Simple slopes analyses revealed that interrupting was negatively related to perceptions of relationality in female-dominated groups (β=-.717, $t(51)$=-4.398, p=.001), but unrelated in mixed gender (β=.207, $t(51)$=1.108, p=.273) and male-dominated (β=.345, $t(51)$=.845, p=.402) groups.

Overall, these findings demonstrate that female-dominated groups exhibited harsh evaluations of dissenters who interrupted across a range of measures, whereas mixed gender and male-dominated groups did not.

Asking Questions. The effects of asking questions on *backlash* toward the dissenter were moderated by group composition, $F(2,51)=3.718$, $p=.031$, $\Delta R^2=.122$ (Table 21). Simple slopes analyses revealed that asking question was marginally but negatively related to backlash toward the dissenter in female-dominated groups ($\beta=-.354$, $t(51)=-1.708$, $p=.094$), but positively related to backlash in mixed gender groups ($\beta=.465$, $t(51)=2.160$, $p=.036$) and unrelated in male-dominated ($\beta=-.038$, $t(51)=-0.143$, $p=.887$) groups.

The effects of asking questions on evaluations of dissenter *femininity* were also moderated by group composition, $F(2,51)=3.488$, $p=.038$, $\Delta R^2=.119$ (Table 22). Simple slopes analyses revealed that asking questions was positively related to perceptions of feminity in female-dominated groups ($\beta=.507$, $t(51)=2.726$, $p=.009$), but unrelated in mixed gender ($\beta=.045$, $t(51)=.202$, $p=.841$) and male-dominated ($\beta=-.013$, $t(51)=-.039$, $p=.969$) groups.

Interaction between group composition and dissent on <u>expected </u>evaluations (Hypotheses 4 & 5). Hypotheses 4 and 5 proposed that women should anticipate more severe penalties for dissenting in female- and male-dominated groups relative to mixed gender groups. Study 4 allowed for an examination of these hypotheses, taking amount of dissent into account. This answers the question, did women expect to receive more penalties for dissenting in different types of groups?

Stepwise regression looking at main effects of dissent, group composition, and the interaction of the two on expected backlash, expected evaluations of femininity, masculinity, competence, status violations, similarity, relationality, and courage, as well as psychological safety and empowerment was conducted. Dissent exhibited a main

effect on expected backlash (β=-.417, p=.003), masculinity (β=.466, p=.001), competence (β=.450, p=.001), status violations (β=.306, p=.031), similarity (β=.307, p=.035), courage (β=.301, p=.036), psychological safety (β=.398, p=.005), and empowerment (β=.590, p<.001). Group composition did not exert a main effect on any variables.

Group composition did not moderate the relationship between dissent and any measures of expected evaluation (i.e., backlash, femininity, masculinity, competence, status violations, similarity, and relationality). Therefore, Hypotheses 4 and 5 were not supported. However, results did reveal that group composition moderated the relationship between amount of dissent and how much psychological safety the dissenter perceived (F(2,51)=5.282, p=.008, ΔR^2=.142 (Table 23). Simple slopes analyses revealed that dissenting was positively related to psychological safety in mixed gender groups (β=.659, t(51)=3.781, p=.001) and male-dominated groups (β=.542, t(51)=2.482, p=.016), but unrelated in female-dominated groups (β=-.134, t(51)=-.568, p=.573). It should be noted that psychological safety was measured after the group discussion—as such, this value represents the psychological safety the dissenter experienced during the discussion.

Another finding concerns the use of the first person plural (i.e., "we," "our") in the dissenter's description of her experience during the discussion (i.e., the qualitative item she completed as part of the post-discussion survey). Results showed that group composition moderated the relationship between dissent and the use of "we," F(2,51)=2.733, p=.075, ΔR^2=.092 (Table 24). More specifically, dissent was negatively related to the use of "we" in female-dominated groups (β=-.474, t(51)=-2.186, p=.033), but was unrelated in mixed gender (β=-.379, t(51)=-1.452, p=.153) and male-dominated

groups (β=. 249, t(51)=1.208, p=.233). This may imply that women who dissented more felt less connected to their group members, but only in female-dominated groups. Example statements include "we worked together well" versus "everyone cooperated."

Interaction between group composition and language on <u>expected</u> evaluations. Given that dissenter language interacted significantly with group composition to predict both performance and evaluations of the dissenter, I thought to examine the possibility that this interaction might also predict *expected* evaluations of the dissenter. That is, did women expect to receive different types of penalties for using specific types of language in female-dominated, male-dominated and mixed gender groups?

Stepwise regression looking at main effects of communication tactics (assenting, negating, interrupting, asking questions, and expressions of negativity), group composition, and the interaction of the two on expected evaluations (including expected backlash, femininity, masculinity, competence, status violations, similarity, relationality, and courage as well as psychological safety and empowerment) was conducted.

Several communication tactics exerted main effects on expected valuation measures as well as psychological safety and empowerment. Assent was negatively related to expected evaluations of masculinity (β=-.409, p=.003), competence (β=-.338, p=.017), status violations (β=-.272, p=.053), courage (β=-.345, p=.014), and psychological safety (β=-.276, p=.051). Negating was negatively related to expected evaluations of masculinity (β=-.305, p=.027), competence (β=-.295, p=.034), relationality (β=-.251, p=.071), and empowerment (β=-.360, p=.009). Interrupting was negatively related to expected evaluations of femininity (β=-.263, p=.048). Asking questions was positively related to expected backlash (β=.264, p=.059) and negatively

related to expected evaluations of masculinity (β=-.417, p=.002), competence (β=-.459, p=.001), courage (β=-.388, p=.004), psychological safety (β=-.318, p=.020), and empowerment (β=-.362, p=.008). Finally, expressions of negativity were negatively related to expected evaluations of masculinity (β=-.256, p=.057), courage (β=-.240, p=.074) and empowerment (β=-.245, p=.071).

Significant interactions between *interrupting* and group composition emerged for expected backlash, relationality, and empowerment. A trend emerged for *negating* and expected similarity.

Interrupting. The effects of interrupting on expected backlash were moderated by group composition, $F(2,51)$=3.711, p=.031, ΔR^2=.125 (Table 25). Simple slopes analyses revealed that interrupting was positively related to expected backlash in female-dominated groups (β=.488, $t(51)$=2.506, p=.015), but was unrelated in mixed gender (β=.053, $t(51)$=0.215, p=.831) and male-dominated (β=-.329, $t(51)$=-1.340, p=.186) groups. Thus, it appears that women's anticipation of backlash when interrupting in female-dominated groups matches the reality of actually receiving more backlash in these contexts.

The effects of interrupting on expected evaluations of relationality were moderated by group composition, $F(2,51)$=4.242, p=.020, ΔR^2=.137 (Table 26). Simple slopes analyses revealed that interrupting was negatively related to expected evaluations of relationality in female-dominated groups (β=-.486, $t(51)$=-2.742, p=.008), but was unrelated in mixed gender (β=-.064, $t(51)$=-.281, p=.780) and male-dominated (β=.443, $t(51)$=1.370, p=.177) groups. This finding also demonstrates that women's expectations of relational consequences for interrupting match reality.

The effects of interrupting on dissenter's level of empowerment were moderated by group composition, $F(2,51)=6.411$, $p=.003$, $\Delta R^2=.198$ (Table 27). Simple slopes analyses revealed that interrupting was negatively related to empowerment in female-dominated groups ($\beta=-.629$, $t(51)=-3.049$, $p=.004$), but positively related to empowerment in male-dominated groups ($\beta=.435$, $t(51)=1.980$, $p=.053$) and unrelated in mixed gender ($\beta=.014$, $t(51)=.065$, $p=.949$) groups.

Negating. The effects of negating on expectations of similarity were moderated by group composition, $F(2,51)=2.927$, $p=.063$, $\Delta R^2=.101$ (Table 28), although this did not reach significance at p<.05. Simple slopes analyses revealed that negating was negatively related to expectations of similarity in female-dominated groups ($\beta=-.349$, $t(51)=-1.925$, $p=.060$) and male-dominated groups ($\beta=-.527$, $t(51)=-1.741$, $p=.088$), but was unrelated in mixed gender groups ($\beta=.114$, $t(51)=0.464$, $p=.644$).

Discussion

Study 4 revealed several interesting findings and provides further evidence for the importance of the social context in dissent dynamics.

Influence of the social context on women's dissent behavior. Results demonstrated that women dissented the *most* in female-dominated groups, although I originally proposed that women should dissent *least* in female- and male-dominated groups and most in mixed gender groups. One possible explanation is that the consequences for speaking out in general were attenuated by the lab-based nature of the current study. That is, students were in ad hoc groups created solely for the purpose of the current study without the expectation of continued contact. This is an important departure from how workgroups operate in real organizations, in which they experience frequent

and sustained contact. The relational harm caused by dissenting in such close-knit groups has substantial negative implications for dissenters in terms of how much they are liked as well as how influential they are. The absence of an expectation of continued contact may have made dissenters in the current study more likely to speak up because they didn't fear the downstream relational consequences of their actions. Given that relational consequences are especially important in female-dominated groups (relative to male-dominated or mixed gender groups), this offers a potential explanation for the higher amount of dissent in female-dominated groups, though this is clearly speculative. An additional consideration concerns the undergraduate sample used in Study 4, especially when compared to the working adult samples in Studies 1, 2, and 3 (which demonstrated that women received and expected more backlash in female-dominated groups). It is possible that the female students in Study 4 may have been more likely to dissent because they expected less backlash than their working women counterparts. That is, working women have increased exposure to the backlash realities that operate in organizations, whereas most college students do not (via their limited work experience).

Further, women in male-dominated groups dissented roughly the same amount as women in mixed gender groups, which was contrary to my hypothesis that women would dissent *less* in male-dominated groups than in mixed gender groups. I originally proposed that status violations would be especially salient in male-dominated groups and that this would underlie women's silence in these groups. However, it is possible that the salience of status expectations was also attenuated by the study sample and design. College students endorse gender and status stereotypes much less than other individuals (Henry,

2009), so it is possible that participants were not particularly concerned with violating status expectations.

However, it is interesting that women in male-dominated groups used more assent language than women in other groups. This may indicate that women may felt more intimidated in male-dominated groups. The use of assent words indicates agreement, as opposed to disagreement (i.e., dissent) and implies that women in male-dominated groups felt a stronger pressure to agree with their group members. Expectations of women's competence are generally lower than that of men's (Biernat & Kobrynowicz, 1997), which may have contributed to stereotype threat and thereby prompted women to agree (rather than disagree) with their male group members. Again, this is highly speculative but warrants future investigation.

Implications for group performance. The task employed in the current study was designed such that dissent was necessary for groups to reach optimal performance (i.e., the more the dissenter shared her critical knowledge with the group, the more likely the group was to reach the correct answer). Although groups differed significantly in the amount of dissent, this did not translate into an overall difference in group performance. It is worth mentioning, however, that female-dominated groups experienced significantly more dissent and significantly better performance than male-dominated groups. Although results were not significant when all three groups (female-dominated, male-dominated, and mixed gender) were compared, the finding that female-dominated groups enjoyed more dissent and marginally better performance is nonetheless compelling.

Perhaps what is more fascinating is the emergence of relationships between group

composition, dissenter communication strategies, and performance. Most notable is the finding that the use of impolite strategies (interrupting, negating and expressing negativity) were inversely related to group performance, but *only in female-dominated groups*. This is consistent with the argument that female-dominated groups have higher standards for relational behavior. The use of impolite strategies can result in severe damage to interpersonal relationships, as these strategies convey that the speaker has little concern for the other's face. Interrupting and expressions of disagreement (e.g., negating) are highly offensive and likely resulted in a rejection of the dissenter. This unwillingness to listen to the dissenter may have then translated into compromised group performance for female-dominated groups. Expressions of negativity are similarly ill-received, as they disrupt harmonious group functioning. As such, framing information in a negative (vs. positive) manner was also a less effective means of conveying information in female-dominated groups. Further, an examination of the transcripts revealed that expressions of negativity may have been accounted for by arguments as to why Company B was a poor choice, rather than why Company A was a good choice (e.g., statements that B would *lose* money, that is was a *risky* choice). Given that the majority was of the opinion that B was the best choice, group members may have perceived these arguments as an attack on their views. Attacks are markedly impolite and moreover, threatening. Previous work demonstrates that women react especially negatively to women they perceive as threatening (e.g., Parks-Stamm, Heilman & Hearns, 2008). As such, it is not surprising that women who employed threatening tactics were ultimately less effective in influencing their group members.

Taken together, these finding suggest that for women to be successful in convincing groups of other women, they should avoid impolite communication strategies.

Evaluations of the dissenter. Study 4 not only illustrated the importance of the social context and dissenting behavior for performance, but also for the dissenter herself. Some of the most robust findings in the current work emerged when looking at how group composition moderated the relationship between language use and evaluations of the dissenter.

More specifically, impolite strategies (e.g., interrupting) predicted backlash toward and harsh evaluations of the dissenter while polite strategies (e.g., asking questions) predicted lenient evaluations of the dissenter, but again, *only in female-dominated groups*. These findings complement results showing that impolite strategies negatively predict performance in female-dominated groups and further highlight the importance of polite behavior in these groups. Interrupting is an extremely impolite behavior and conveys indifference toward what the other is saying, if not outright hostility toward them. In this sense, interrupting causes substantial relational harm and is extremely disruptive to harmonious group functioning. Therefore, it is not surprising that interrupting predicted perceptions of the dissenter as less feminine, competent, similar, relational, and more status-seeking. That findings emerged across these different types of violations speaks to the importance of politeness in female-dominated groups.

Conversely, asking questions is a distinctly polite strategy as it involves being indirect and can serve as a way of couching one's arguments in non-threatening terms (e.g., "Do you think that company B could be a risky choice?" instead of "Company B could be a risky choice"). Asking questions also conveys that one is open to considering

others' points of view, which is a very communal trait. As such, it makes sense that asking questions positively predicted evaluations of the dissenter as feminine, as well as negatively predicted backlash toward her.

An additional finding of note is that dissent was positively related to perceptions of the dissenter as courageous in mixed gender, but not female-dominated or male-dominated groups. This is consistent with the notion that women should receive less backlash for speaking up in mixed gender groups (when compared to female- and male-dominated groups). Perhaps individuals in mixed gender groups were willing to give the dissenter more credit for speaking up, whereas her courage went generally unnoticed in gender-dominated groups.

Dissenter experience and expected evaluations. Finally, Study 4 examined how the dissenter expected to be evaluated by her group members, as well as how she felt during the group discussion. Because previous experiences of dissenting are likely to influence future dissent behavior, this is an important topic to examine. By and large, these results illustrate the women are calibrated to the backlash realities they face as a function of the social context.

Most notably, the dissenter's use of interruption positively predicted expected backlash and expected relationality violations- both of which are consistent with actual evaluations of the dissenter. This suggests that women have some awareness of how their dissenting style can translate into backlash realities. It is likely that female group members' negative reactions to interruptions were somewhat apparent and that the dissenter picked up on these cues. It is especially compelling that the dissenter anticipated *relationality* violations. This implies that women have some awareness of the importance

of relational behavior in female-dominated groups and an understanding of how impolite behavior may violate relational norms.

Women's awareness of relational norms was also implicated by implicit measures. That is, dissent was negatively related to the use of first person plural pronouns (e.g., "we") in the dissenter's description of her experience in female-dominated, but not other, groups. This inverse relationship between "we" language and dissent in female-dominated groups may suggest that dissenting resulted in decreased feelings of belongingness to the group. That this finding emerged only in female-dominated groups may suggest an awareness of the importance of being socially in tune with others in these groups.

The finding that interrupting was negatively related to empowerment (which largely taps into how much influence the dissenter felt she had in the group) in female-dominated groups also conveys an awareness of performance-related dissent outcomes. This inverse relationship between empowerment and impolite tactics indicates that women who used such tactics knew that they were not especially effective in convincing their group members, in the end. This is corroborated by the finding that impolite tactics negatively predicted performance. What is especially interesting, however, is that interrupting was marginally, but positively related to empowerment in male-dominated groups. This may imply that using a more forceful tactic made women feel 'heard' in these groups (although this did not translate into differences in performance).

Another interesting finding was that that the use of negating language negatively predicted anticipated perceptions of similarity in female-dominated and male-dominated groups, but not in mixed gender groups. The negative relationship between negating

language and similarity in female-dominated groups is consistent with my argument that similarity expectations are higher in these types of groups. That women anticipated that disagreeing with their female group members violates similarity expectations is compelling and indicates an impressive awareness of the social context. However, the negative relationship between negating and expectations of similarity in male-dominated groups was unexpected. However, it is possible that women in these groups expected low levels of similarity to begin with, given that they differed from group members on a very salient characteristic (gender). Lack of similarity between the self and others could have been further exacerbated by the expression of disagreement because this would display that not only did the dissenter differ from her group members in terms of gender (a surface level characteristic) but also in terms of attitudes (a deep level characteristic). As such, the dissenter may have expected male participants to see little common ground between them.

Finally, an additional finding concerns how psychological safety was related to dissent in different groups. While dissent and psychological safety were positively related in male-dominated and mixed gender groups, they remained unrelated in female-dominated groups. Given that women were less likely to dissent in male-dominate and mixed gender groups, it is possible that they had to perceive relatively high levels of psychological safety in order to dissent (and keep dissenting). It should be noted, however, that psychological safety was measured at the end of the experiment and thus cannot be definitively labeled as a predictor of dissent. Hence, we must also consider the possibility that individuals in male-dominated and mixed gender groups responded to dissent in a way that made the dissenter feel psychologically safe.

Like any study, Study 4 has some limitations. One concerns the use of undergraduate students, who have limited work experience. Given that I am most interested in how dissent processes play out in the workplace, the use of undergraduate students may limit the extent to which I can generalize these findings to the organizational context. However, one might argue that the patterns that emerged in this study might be even more likely to emerge with other samples. That is, my theory is largely based on gender and status stereotypes, which college students endorse much less than other individuals (Henry, 2009). University cultures often espouse egalitarian beliefs and provide a safe environment for the expression of individual beliefs. As such, it would seem that the dynamics I propose (i.e., gender and status-based expectations) should operate to a lesser extent in the University context, and that undergraduate women should feel *especially* comfortable dissenting. The fact that undergraduate women's behavior was heavily influenced by group composition speaks to the strength of these effects.

Study 4 was also a laboratory study and therefore has limited realism and ecological validity. However, scholars continue to debate the equivalence of laboratory and field studies (e.g., Locke, 1986). In a 1999 study, Anderson, Lindsay, and Bushman compared meta-analytic effect sizes in lab and field studies across several constructs (e.g., leadership styles, helping behavior, aggression, social loafing, depression, memory) and found substantial correspondence. Nonetheless, there are important differences between the laboratory and the real world. For example, participants in Study 4 had little previous contact with each other, which is an important departure from work groups in real organizations. The extent of previous relationships could certainly affect how dissent processes play out. Harris, Price, and Bell (1998) demonstrated that surface-level

characteristics (e.g., gender) become less important (e.g., less predictive of cohesion) over time. Therefore, the gender of other group members should become less salient over time as members being to see each other as *individuals* rather than as *men* or *women*. As such, effects of group composition on dissent behavior might be attenuated in actual work groups.

In addition, the lower base rates of dissent in male-dominated and mixed gender groups made it difficult to examine whether communication strategies were differentially related to performance or other outcomes in these groups.

Finally, the study suffered from unequal samples sizes with N=21 for female-dominated groups, N=22 for mixed gender groups, N=14 for male-dominated groups. Given that the undergraduate psychology major is female-dominated, scheduling groups of 3 male participants at a time proved challenging.

Study 4 revealed several findings regarding when and how women dissent as a function of the social context, as well as outcomes associated with dissent. Female-dominated groups experienced the most dissent as well as the best performance, while male-dominated groups experienced the least dissent and poorest performance, and mixed gender groups fell somewhere in between on both. Moreover, communication style interacted critically with the social context to affect performance, evaluations of the dissenter and expected evaluations. Impolite strategies were related to poorer performance and harsher evaluations of the dissenter, but only in female-dominated groups. Further, women's expected evaluations were largely calibrated to these backlash realities. In sum, Study 4 provides compelling evidence for the influence of the social context on dissent processes.

Chapter 8: General Discussion

Taken together, these studies reveal the complex and nuanced nature of dissent processes in varying social contexts. Group composition affects not only *whether* women dissent, but also *how* they dissent as well as the consequences of dissent. Below, I discuss the dynamics operating in female-dominated, male-dominated, and mixed gender groups as well as theoretical implications, practical implications and directions for future research.

Dissent in Female-Dominated Groups

What emerges most clearly from these results concerns the dynamics of dissent in female-dominated groups. Study 1 showed clear evidence of women penalizing other women for dissenting. Study 2 showed subtle evidence that women may attempt to distance themselves from female dissenters (through the use of third person singular pronouns in their descriptions of female dissenters). Study 3 demonstrated that women, in fact, are aware of the backlash realities posed by dissenting in groups of other women as they expected to be evaluated as least feminine, similar, and as committing the greatest status violations in female-dominated groups. As such, it would appear that female-dominated contexts are the riskiest in which to dissent. However, Study 4 demonstrated that women actually dissented the *most* in female-dominated groups and as a result, these groups enjoyed marginally better performance.

As noted, Study 4 of the current work showed that women actually the dissented most in female-dominated groups and least in male-dominated groups, with mixed gender groups falling in between. This differs from my original proposition that women would dissent more in mixed gender groups than in gender-dominated (i.e., female- and male-

dominated) groups and seems at odds with findings from Studies 1-3. One possible explanation for these discrepant findings concerns the samples used in each study. Studies 1, 2, and 3 included samples of working adults, while Study 4 included a sample of undergraduate students. It is possible that the female students in Study 4 may have been more likely to dissent because they expected less backlash than their working women counterparts. That is, working women have increased exposure to the backlash realities that operate in organizations, whereas most college students do not (via their limited work experience). Further, college students tend to hold less stringent gender stereotypes (Henry, 2009), which may have attenuated gender-based expectation violation concerns. Therefore, female college students' willingness to dissent may reflect the less severe consequences they expected to receive for dissenting relative to the working adult samples.

However, what appears to be a crucial moderator of backlash toward women who dissent in female-dominated groups is communication style. That is, the risks (for both group performance and relationships) posed by dissenting were especially acute in female-dominated groups, but *only when women dissented in a certain way*. More specifically, when women employed *impolite* communication strategies.

Study 4 demonstrated that when women used impolite communication tactics (e.g., interrupting, negating, and expressing negativity), they were less effective in convincing their group members and much less liked in female-dominated groups. Not only did the dissenter suffer from harsh evaluations in these contexts, but group performance was seriously compromised. In contrast, polite behavior (asking questions) was related to more positive evaluations of the dissenter. These findings point to the

importance of polite behavior, or rather, the avoidance of impolite behavior, in female-dominated contexts. Impolite behavior is extremely nonrelational and its expression therefore violates the high relationality standards operating in female-dominated groups. What this suggests is that women must be especially careful to avoid impolite strategies when dissenting in female-dominated groups. Results indicate that dissenting, in and of itself, is not particularly detrimental in female-dominated groups. In fact, female-dominated groups outperformed male-dominated groups (but not mixed gender groups). What matters more is *how* a woman dissents in the presence of other women. Women appear to be especially sensitive to impolite behavior and respond with strong and negative reactions; as such these behaviors should be avoided as they have negative implications for both objective (i.e., group performance) and subjective (i.e., personal evaluations) outcomes.

Further, this work shows that women have some awareness of the specific 'triggers' of backlash in female-dominated groups. Findings from Study 3 and 4 imply an awareness of the importance of group membership the consequences of violating group norms. Study 3 showed that women expected to be perceived as committing the most egregious similarity violations in female-dominated groups. Study 4 showed that dissent was negatively related to the use of first personal plural words (an indication of belongingness) in the dissenter's description of her experience and that negating language predicted similarity violations in female-dominated groups.

Moreover, Study 4 showed that women who employed impolite tactics *expected* backlash from their female group members and further, expected to be perceived as violating relationality norms. These findings indicate that women are, to some degree,

aware of context-dependent expectations and how those might translate into consequences for dissent.

Finally, it is worth reiterating that Study 4 demonstrated that female-dominated groups outperformed male-dominated groups (but not mixed gender groups). This indicates that when women dissent effectively (i.e., not impolitely), their female group members are open to considering dissenter contributions and are thereby able to capitalize on her knowledge.

Dissent in Male-Dominated Groups

The current work also presents some interesting findings regarding dissent dynamics in male-dominated groups. Study 2 provided subtle evidence for increased penalties toward women who dissented in male-dominated groups (relative to mixed gender groups) via the use of negating language (i.e., a focus on deficiencies) in descriptions of the dissenter. Study 3 findings regarding anticipated backlash for dissenting in male-dominated groups were somewhat unclear (as anticipated evaluations in male-dominated groups did not differ from those in female-dominated or mixed gender groups). However, Study 4 demonstrated that women dissented *least* in male-dominated groups and also espoused more agreement (i.e., assent) with their male group members. In addition, male-dominated groups underperformed relative to female-dominated groups, but not mixed gender groups.

One question that remains is exactly why women kept quiet in these groups. I argued that gender and status expectations constrain women's dissenting behavior, and I proposed stereotype threat as an additional considering underlying women's silence in male-dominated groups (in the Study 4 discussion). However, this is only one half of the

story- the other half concerns how the group members reacted to dissent. It is possible that men in male-dominated groups were dismissive of the dissenter's contributions. There is a large body of work demonstrating that people are resistant to perceiving women as experts (e.g., Thomas-Hunt & Phillips, 2004), largely due to decreased expectations of female competence (Biernat & Kobrynowicz, 1997). As such, men may have looked to other men for direction, rather than seeking input from a woman. Even if women did speak up in the beginning of the discussion, male group members' dismissive attitudes may have silenced her for the remainder of the discussion. It is also possible that male participants responded with hostility to a female dissenter's initial contributions, which led to constrained voice for the remainder of the discussion. Looking at dissent dynamics over time is an additional approach that should be considered to shed further light on women's silence in male-dominated groups.

Dissent in Mixed Gender Groups

Overall, this research suggests that mixed gender environments seem to be the most "neutral" in which to dissent. Studies 2 and 3 showed that women received and expected the least backlash for dissenting in mixed gender groups. Study 4 showed that women in mixed gender groups dissented less than in female-dominated groups, but that performance in these groups equaled that of female-dominated groups. This was a curious finding, as it would be expected that lower levels of dissent would compromise performance in these groups. However, it is possible that women in mixed gender groups didn't need to dissent as much in order to be heard. Therefore, it would appear that women in mixed gender groups were able to express a lower level dissent and still influence their group members (relative to female-dominated groups).

Further, communication style did not uniquely predict backlash or performance in mixed gender groups- that is, regardless of their display of polite versus impolite tactics, women were treated the same. These findings are consistent with my argument that the gender and status stereotypes that affect dissent dynamics are less salient in mixed gender contexts. In the absence of intense gender, status, similarity, and relationality expectations, women were allotted greater flexibility in how (and how much) they chose to dissent. That is, mixed gender groups create a relatively weak situation when compared to the tight situation facilitated by the high expectations in gender-dominated groups. As such, a greater range of dissenting behavior was permissible for women (Gelfand, Raver, Nishii, Leslie, Lun, Lim, et al., 2011).

Theoretical Implications

From a theoretical perspective, this work may help to inform our understanding of the minority influence and other dissent-related literatures. Identifying group composition as important moderator of dissent may allow for a reinterpretation of previous findings. For example, De Vries et al. (1996) identified numerous factors that facilitate minority influence (e.g., behavioral style). However, the current study showed clear evidence that communication style effectiveness was largely dependent on group gender composition. As such, it should be noted there might not be a universally effective behavioral style, but that effectiveness may be context-dependent.

On a broader level, it is possible that certain dissent dynamics were unobservable in previous work when dissenter gender and group gender composition were not taken into account. That is, the current study showed that women in male-dominated groups were least likely to dissent, thus rendering it difficult to fully examine dissent processes

(due to its low base rate). Given that previous work may not have considered group gender composition, effects may have been unobservable, but for unknown reasons. Taking group gender composition into account may help to explain discrepant or otherwise unexpected findings in the minority influence literature.

This work also has theoretical implications for the backlash literature. In particular, how backlash is operationalized and measured. Backlash was purported to be one of the major consequences of dissenting. However, the studies did not provide substantial support for backlash toward dissenting women. One possibility for this concerns how backlash was operationalized. As defined, backlash concerns the penalties directed toward women who violate gender stereotypes. In this sense, backlash is a consequence of how people *behave* toward the dissenter. However, the measure of backlash in the current study assesses attitudes toward and evaluations of the dissenter, but not behavior (or intended behavior) directed toward her. As such, the current measure assessed *liking* of the dissenter as opposed to how people behaved (or intended to behave) toward the dissenter. Items geared toward tapping into how participants would behave toward the dissenter (e.g., "How likely is it that you would talk to [the dissenter] after the experiment?") might provide an assessment of backlash more consistent with the definition provided above. Future studies might attempt to develop a more refined backlash measure.

Practical Implications

This work showed a clear effect of group composition on women's willingness to dissent. Although speaking up did not translate into robust differences in terms of group performance in this study, the positive consequences of dissent are well-documented

(Beer & Eisenstat, 2000; Bies & Shapiro, 1988; Nemeth & Kwan, 1985; Peterson, Owens, Tetlock, Fan & Martorana, 1998; Van Dyne, Cummings, & McLean-Parks, 1995; Van Dyne & Saavadra, 1996). For organizations, this implies that consideration should be given to the gender composition of work groups, especially for certain types of assignments. Given the strong links between dissent and processes like creativity and problem-solving (e.g., Nemeth & Kwan, 1985; Van Dyne & Saavedra, 1996), it would be to an organization's benefit to configure groups that facilitate (rather than inhibit) dissenting perspectives for certain tasks. Given the finding that women were more willing to dissent in female-dominated groups, organizations might want to delegate female-dominated groups to handle projects that could benefit especially from a diversity of perspectives.

Further, organizations may want to purposefully place a group member in the "devil's advocate" position (as is common in several organizations). The assignment of this position may normalize dissent and help groups to achieve the benefits of dissent while still buffering the dissenter from harsh consequences. That is, if group members are able to attribute a dissenter's expectation violations to her assignment as the "devil's advocate" rather than to her as a person, they should be less likely to penalize her. In this sense, groups might reap the benefits of dissent, without the relational costs.

This work also has several prescriptive implications for how women might choose to speak up at work. Primarily, women should calibrate their dissenting behavior to the social context. Specifically, women should avoid impolite strategies in groups of other women, as this not only compromises performance, but also results in backlash toward the dissenter. As more women begin to climb the rungs of the organizational ladder,

female-dominated work groups may become increasingly common. Much evidence of woman-to-woman aggression in the workplace already exists, and it is important for women to learn how to navigate these precarious situations. Mixed gender groups permit a wider range of dissenting tactics and as such, women may be free to experiment with multiple dissenting tactics. It remains unclear what the most effective tactics are in male-dominated groups, and future research should focus more extensively on these contexts.

It is crucial that women learn how to dissent effectively and an understanding of the social context is an important component of this. Although much progress has been made, gender and status stereotypes continue to limit women's success in organizations. Women are therefore tasked with navigating the constraints imposed by gender and status expectations and further, with calibrating their behavior to social contexts that may vary in their endorsement of these expectations. Dissenting has crucial implications for women's career trajectories as withholding voice constrains the span of women's influence in organizations and thereby precludes them from several of the benefits allotted to more prominent individuals. An understanding of how to convince others while maintaining interpersonal rapport is therefore of great importance for women trying to succeed in modern organizations.

Future Directions

The current work sheds light on the gender dynamics of dissent and in doing so, presents several exciting avenues for future work.

In addition, the current work examined politeness strategies with the use of linguistic variables, but did not examine specific strategies for dissenting. Garner (2009) developed a typology of 11 types of dissent messages including factual appeal (e.g., using

facts and experiences to support one's position), repetition (e.g., repeating dissent until the audience is amenable), solution presentation (e.g., providing a solution as part of dissent), circumvention, venting, humor, pressure, coalitions, exchange, ingratiation, and inspiration. These more specific dissent strategies are very context-heavy and do not lend themselves well to analysis using LIWC. The advantages of LIWC are its accuracy and efficiency, but one major disadvantage is that it does not capture context, only content. A more fine-grained coding scheme could be applied to the data to identify the use of these strategies. It would be interesting to see if some of these strategies are differential effective in different types of groups. For example, pressure might be especially ineffective in female-dominated groups because of its potential for relational damage, while humor might be more effective.

Further, the current study did not include any individual difference measures, although several individual differences (e.g., personality traits) have been identified as predictors of willingness to dissent (De Dreu et al., 2000). The assumption was that traits would be evenly distributed across groups and would therefore not bias results. However, recent work provides evidence that individual motivators and contextual facilitators of speaking up may interact. For example, Morrison, Wheeler-Smith and Kamdar (2011) found that group identification interacted with group climate for voice to predict voice behavior. It is possible that certain individual difference factors could have interacted with the context to affect dissent dynamics. One such factor could be the endorsement of traditional gender stereotypes. Perhaps women who hold traditional gender stereotypes are very unlikely to dissent in male-dominated groups, but more willing to dissent in female-dominated groups. Individual differences might also affect how people respond to

female dissenters and should thus be examined. For example, sexism might play a major role in the evaluation of female dissenters, with sexist individuals penalizing female dissenters to more extreme degree.

Effects of the broader social context might also be examined (i.e., beyond the group level). One fascinating avenue for future research is organizational demography. For example, male-dominated organizations often facilitate situations in which women are especially competitive with each other given the restricted opportunities for women to advance to top positions (Ely, 1994). This intensely competitive environment might make dissenting against other women even riskier. However, it is also possible that women must display hypermasculine behavior to get ahead in these contexts and may thereby unfazed by displays of similarly masculine behavior by other women. Organizational demography also has several implications regarding the extent to which women's contributions might be valued. Male-dominated environments may have fewer female employees because they are hostile toward women or otherwise discriminate against female employees. It is likely that women's voice will go unheard in these contexts. However, it is possible that women adapt to these situations by using aggressive tactics (e.g., interrupting) in order to *make* themselves heard.

An additional direction concerns extending the examination of dissent to other low power groups, such as racial minorities. In particular, the intersection of gender and race would be interesting because it might introduce competing stereotypes. That is, stereotypes of African American women represent a significant departure from the traditional Western female stereotype, as women of color are often characterized as strong-willed, independent, and aggressive (consistent with Hill-Collin's (2000)

Matriarch stereotype). This lowered expectation of femininity may result in less backlash towards African American female dissenters. However, race also carries explicit status connotations, which a dissenting African American woman would certainly violate. These competing stereotypes create a complex situation for African American female dissenters and warrants further attention.

To summarize, this dissertation demonstrated evidence of increased backlash both incurred by and expected by female dissenters in female-dominated groups in samples of working adults. An examination of actual dissent processes in an undergraduate sample did not replicate these findings, but did show very robust evidence of the importance of communication style employed by female dissenters in female-dominated groups. More specifically, when women matched their dissenting style to the social context—by avoiding impolite tactics in female-dominated groups—they experienced both increased objective (i.e., group performance) and subjective (i.e., group member evaluations) outcomes.

Conclusion

This dissertation makes a number of theoretical and practical contributions. Theoretically, it is of the first work to examine how dissent is socially constructed along gender lines. It extends the examination of dissent dynamics to not only female dissenters specifically, but also examines how the gendered social context affects dissent processes in both objective and subjective terms. Finally, it introduces dissent style as a crucial moderator of both effectiveness and backlash toward female dissenters. From a practical point of view, this dissertation offers an enhanced understanding of how gender dynamics operate with respect to dissent-related processes in the workplace. It demonstrates which

contexts are the most risky in which to dissent (i.e., female-dominated groups), but also

offers suggestions regarding how women might navigate these situations (i.e., by

avoiding impolite behavior in these groups). In doing so, this work illuminates the

complex and nuanced interaction between dissenter behavior and the social context.

Appendices

Appendix A

ACME Task Materials

Instructions Provided to All Participants

Most companies make important investment decisions using a team approach. Your group here today represents the top management team of ACME ("Acquiring Companies Means Employment"), Inc. Your company has been presented with the opportunity to acquire three smaller companies. ACME has $100 million to invest, which will allow it to invest in only one of these companies. The Chairperson of the Board has appointed you to research the three companies and to recommend which one of them would be best for ACME.

There are a number of key factors that you should consider carefully in evaluating these companies.
- First, ACME prefers to invest in a company that will maximize wealth over the long term. Which of these companies has the most promising future? Therefore you should consider the potential **return on your investment**.
- A second consideration is the likelihood of you actually getting that return, in the long run. That is, **how precise is the estimate and what is the probability that you will actually get this return?**
- Third, you should also consider the **growth potential of each company's market**. You would prefer to invest in a company that competes in a growing market.
- A fourth consideration is the **quality of the company's management team.** You would prefer to invest in companies whose management team can achieve the profitability you desire.
- Finally, you should judge each company's **general strategy and business policies**. Do they seem like policies that will lead the company to profitability in the future?

In order to help you evaluate these companies, your in-house financial analyst has researched each company. Further, you have retained the consulting services of Smith, Barney & Howe, a highly respected and successful investment consulting firm, also to analyze these three companies. The results appear in the reports contained in your information packets. You should review all of this information, and based upon it, come to a conclusion about which of these three companies would be the right acquisition for ACME.

The Chair of the Board wants each of you individually to submit your personal recommendation. After you have studied the material and recorded your personal recommendation (on the last page of this packet), you will decide as a team which of the

three companies ACME should acquire. You are to rank order the three companies from most to least desirable. **At the end of this packet, you will be asked to enter your personal preliminary recommendation. However, you must reach consensus as a group on the top ranked company for the final decision.**

Company A- Complete Information (provided to the 'Dissenter')

"Whiz-Bang Electronics"

Industry: Industrial Electronics
Products: Electronic manufacturing control devices
Location: Metropol, California
Size: $50 million in sales; 200 employees
Age: Established 5 years ago

I. Financial

Your internal financial analyst estimates that the return on your investment will be 15% annually over the next 10 years. This analyst believes the chance of you actually getting this return is 70%. Further, the analyst estimates that there is a 15% chance that ACME will either double this return (thereby providing a 30% return) or will have a zero return.

The Smith, Barney & Howe consultants concur with the conclusions of your in-house analyst. In fact, SBH believes that there is an 80% chance of your obtaining the projected return. Both your internal financial analyst and the SBH consultants agree, however, that there is a near certain probability that ACME will suffer a loss during the first year, and that you would not achieve any return until after that time. This company's growth in sales has been positive, hovering around 5% annually from the beginning, but early projections indicate an increase to 8% for the next fiscal year. Further, this market is expected to grow in the foreseeable future.

II. Strategic

Whiz-Bang Electronics is young, and was founded by a group of bright and talented entrepreneurs whose management experience was limited, at the start. The company has an innovative and promising product line. The inexperience of the management team led to some early mistakes in marketing and distribution such that customer awareness of the products is low. As a result the company has only a 6% market share and low customer perceptions of service. Furthermore, Whiz-Bang Electronics' pricing structure is not suitable for its target customers. The company leadership team has been actively developing their professional managerial skills through workshops and close work with experienced consultants. Industry watchers have noted that this group seems to be making more effective decisions, which are probably responsible for the recent sales growth.

III. Labor

Whiz-Bang Electronics has very high labor costs. It spends a lot of money on employee development. They offer training in a variety of business-related skills ranging from communication to accounting principles. The company's recruiting processes are drawn-

out, but very thorough and careful. Recruiting expenses represent a very large chunk of the company's operating budget. They provide fitness facilities and on-site child care for all employees.

Company A- Incomplete Information (provided to Roles 1, 3, and 4)

"Whiz-Bang Electronics"

Industry: Industrial Electronics
Products: Electronic manufacturing control devices
Location: Metropol, California
Size: $50 million in sales; 200 employees
Age: Established 5 years ago

I. Financial

Your internal financial analyst estimates that the return on investment will be 15% annually over the next 10 years. Further, the analyst estimates that there is a 15% chance that ACME will have a zero return. The Smith, Barney & Howe consultants agree with the conclusions of your in-house analyst. Both analysts agree that there is a near certain probability that ACME will suffer a loss during the first year, and that you would not achieve any return until after that time. This company's growth in sales has been halting, hovering around 5% annually from the beginning.

II. Strategic

Whiz-Bang Electronics is young, and was founded by a group whose management experience was limited. The inexperience of the management team led to some early mistakes in marketing and distribution such that customer awareness of the products is low, and so are perceptions of service. Furthermore, the pricing structure is not suitable for their target customers. As a result, the company has been lagging in the market, averaging only a 6% market share. The company leadership has been trying to address these issues head-on.

III. Labor

Whiz-Bang Electronics has very high labor costs. It spends a lot of money on employee development, such as providing on-site fitness facilities. Their recruiting processes are drawn-out. These expenditures represent a very large chunk of the company's operating budget.

Company B- Complete Information (provided to the 'Dissenter')

"Power Energy"

Industry: Energy
Products: Power for heavy manufacturing
Location: Bigtown, Texas
Size: $50.5 million in sales; 225 employees
Age: Established 25 years ago

I. Financial

Your internal financial analyst estimates that the return on your investment will be 25% annually over the next 10 years. This analyst believes the chances of you actually getting this return is 70%. Further, the analyst estimates that there is a 15% chance that ACME will either double this return (thereby providing a 50% return) or have a zero return.

However, the Smith, Barney & Howe consultants disagree with the conclusions of your in-house analyst. They believe that the rate of return will be lower. In fact, SBH estimates the rate of return will only be 5%, and that the chance of you getting that return will be 40%. Further, SBH expects a 30% chance either way that the return could double (thereby providing a 10% return) or that it could be zero. Power Energy historically has experienced growth in sales averaging 10% annually. It experienced record growth of 15% five years ago, but growth has been declining steadily since then. The best estimates indicate flat growth in the overall market over the near future.

II. Strategic

Power Energy has a 30% share of the market. The current management team is responsible for moving this company to the top of its market, 20 years ago. Their management style has evolved to a "maintenance" strategy, and some in the industry view them as being out of touch with current trends in their markets. Growing concern for the environment, especially related to energy consumption, have started to mandate changes in the way that energy companies deliver product to their customers. Companies able to offer innovations that reduce negative environmental impact will almost certainly merge to the market forefront soon, which may pose a problem for Power Energy.

The company has been involved in off-shore oil drilling and exploration, and has made significant profits. A recent fine and responsibility for some clean-up costs, however has resulted in a 6% reduction in bottom line profits over the next 2 years. One concern is that a number of foreign companies, whose off-shore explorations are subsidized by their governments, are poised to enter Power Energy's market.

III. Labor

Power Energy's labor force consists primarily of semi-skilled workers and engineers who think of this company as offering them lifetime employment. The company is also known for its generous compensation and benefits packages.

Company B- Incomplete Information Provided to Role 1

"Power Energy"

Industry: Energy
Products: Power for heavy manufacturing
Location: Bigtown, Texas
Size: $50.5 million in sales; 225 employees
Age: Established 25 years ago

I. Financial

Your internal financial analyst estimates that the return on your investment will be 25% annually over the next 10 years. This analyst believes the chances of you actually getting this return is 70%. Further, the analyst estimates that there is a 15% chance that ACME will double this return (thereby providing a 50% return). The Smith, Barney & Howe consultants estimated a lower rate of return than did your internal analyst, and they believed there would be a 30% chance of doubling their estimated return. Power Energy historically has experienced growth in sales averaging 10% annually. It experienced record growth of 15% five years ago. Last year's growth was 8%.

II. Strategic

Power Energy has been the market leader for over two decades. It dominates the market with 30% share. The company enjoys strong name recognition among the public. The current management team is responsible for moving this company to the top of its market.

The company has been involved in risky field of off-shore oil drilling and exploration, and has made significant profits. A recent problem, however, resulted in the company receiving a fine and being responsible for some clean-up costs.

III. Labor

Power Energy's labor force consists primarily of semi-skilled workers and engineers. The company has had the reputation of offering job security and generous compensation and benefit packages.

Company B- Incomplete Information Provided to Role 3

"Power Energy"

Industry: Energy
Products: Power for heavy manufacturing
Location: Bigtown, Texas
Size: $50.5 million in sales; 225 employees
Age: Established 25 years ago

I. Financial

Your internal financial analyst estimates that the return on your investment will be 25% annually over the next 10 years. This analyst believes the chance of you actually getting this return is 70%. Further, the analyst estimates that there is a 15% chance either way that ACME will double this return (thereby providing a 50% return) or will have a zero return. The Smith, Barney & Howe consultants estimated a lower rate of return than did your internal analyst, and they believed there would be a 30% chance of doubling their estimated return. Power Energy historically has experienced growth in sales averaging 10% annually. It experienced record growth of 15% five years ago.

II. Strategic

Power Energy has been the market leader for over two decades. It dominates the market with 30% share. The company enjoys strong name recognition among the public. The current management team is responsible for moving this company to the top of its market 15-20 years ago. Growing concern for the environment, especially related to energy consumption, have started to mandate changes in the way that energy companies deliver product to their customers. The company has made significant profits in off-shore oil drilling and exploration, despite recent problems.

III. Labor

Power Energy's labor force consists primarily of semi-skilled workers and engineers. The company has had the reputation of offering job security and generous compensation and benefit packages.

Company B- Incomplete Information Provided to Role 4

"Power Energy"

Industry: Energy
Products: Power for heavy manufacturing
Location: Bigtown, Texas
Size: $50.5 million in sales; 225 employees
Age: Established 25 years ago

I. Financial

Your internal financial analyst estimates that the return on your investment will be 25% annually over the next 10 years. This analyst believes the chances of you actually getting this return is 70%. Further, the analyst estimates that there is a 15% chance that ACME will double this return (thereby providing a 50% return). The Smith, Barney & Howe consultants estimated a lower rate of return than did your internal analyst, and they believed there would be a 30% chance of doubling their estimated return. Power Energy historically has experienced growth in sales averaging 10% annually. It experienced record growth of 15% five years ago. The best estimates indicate flat growth in the overall market over the near future.

II. Strategic

Power Energy has been the market leader for over two decades. It dominates the market with 30% share. The company enjoys strong name recognition among the public. The current management team is responsible for moving this company to the top of its market.

The company has been involved in off-shore oil drilling and exploration, and has made significant profits. One concern is that a number of foreign companies, whose off-shore explorations are subsidized by their governments, are poised to enter Power Energy's market.

III. Labor

Power Energy's labor force consists primarily of semi-skilled workers and engineers. The company has had the reputation of offering job security and generous compensation and benefit packages.

Company C- Information Provided to All Participants

"Quality Tool & Die"

Industry: Industrial Products
Products: Tool & Die for heavy manufacturing
Location: Midville, Indiana
Size: $50.2 million in sales; 175 employees
Age: Established 17 years ago

I. Financial

Your internal financial analyst estimates that the return on your investment will be 8% annually over the next 10 years. This analyst believes the chance of you actually getting this return is 60%. However, the analyst also estimates that there is a 20% chance that ACME will have zero return. The analysis indicates further that there is a near certain probability that you will suffer a loss during the first year, and that you would not achieve any return until after that time. The Smith, Barney & Howe consultants agree with your analyst's conclusions. Growth in sales has been averaging around 6% annually.

II. Strategic

Quality Tool & Die is in a mature industry with very little change forecasted for the foreseeable future. They have managed to maintain their 12% market share in an environment which is expected to remain in a competitive equilibrium in the near future. Their management team is solid and respectable. They have not been known to make any major mistakes, nor have they contributed major innovations to their industry.

III. Labor

Their labor force is composed mostly of unskilled workers employed in assembly line jobs who receive their training on-the-job. The company's labor turnover has been low.
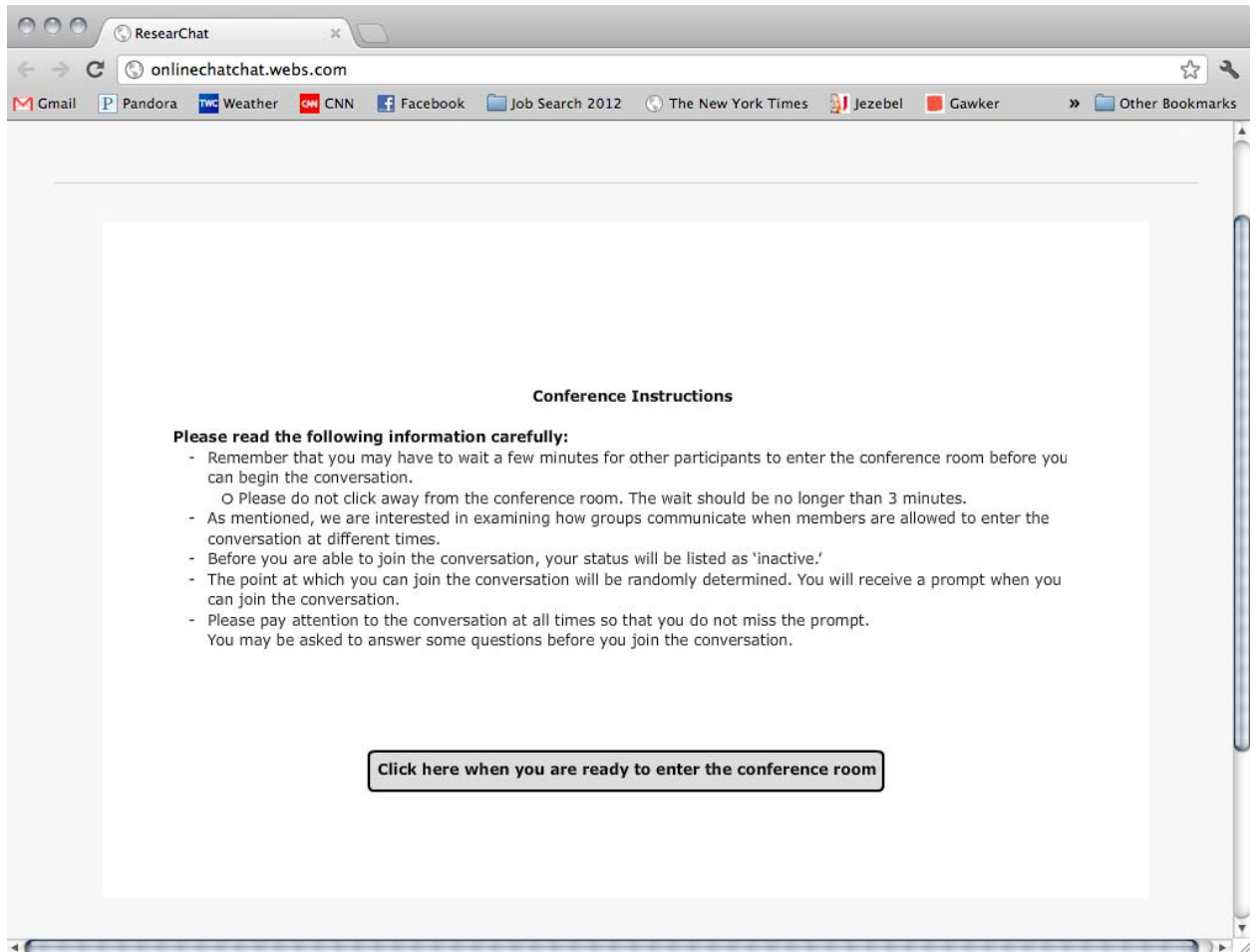
Appendix B:

Study 3 Program Screen Shots

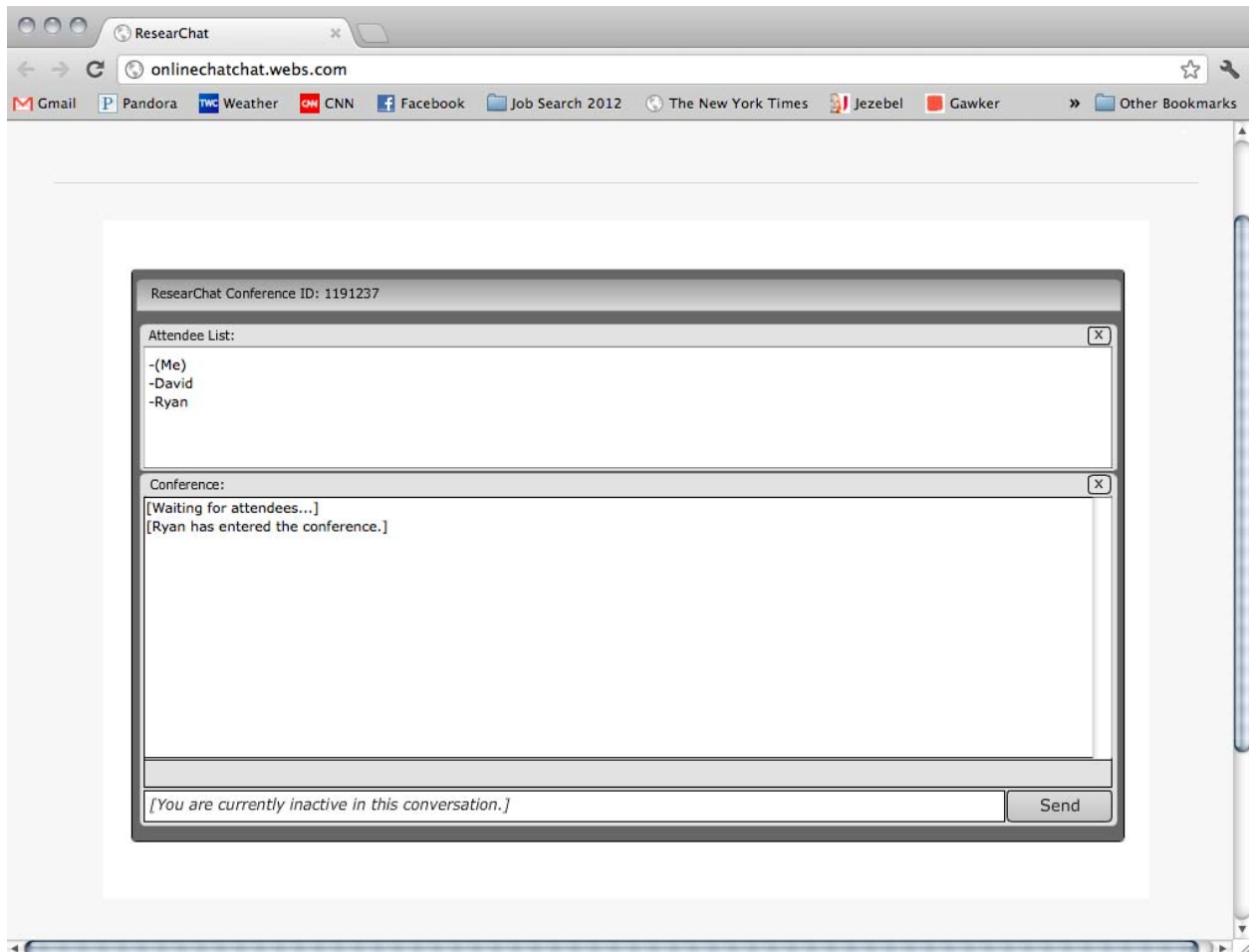*Figure B1.* Online conference room instruction screen

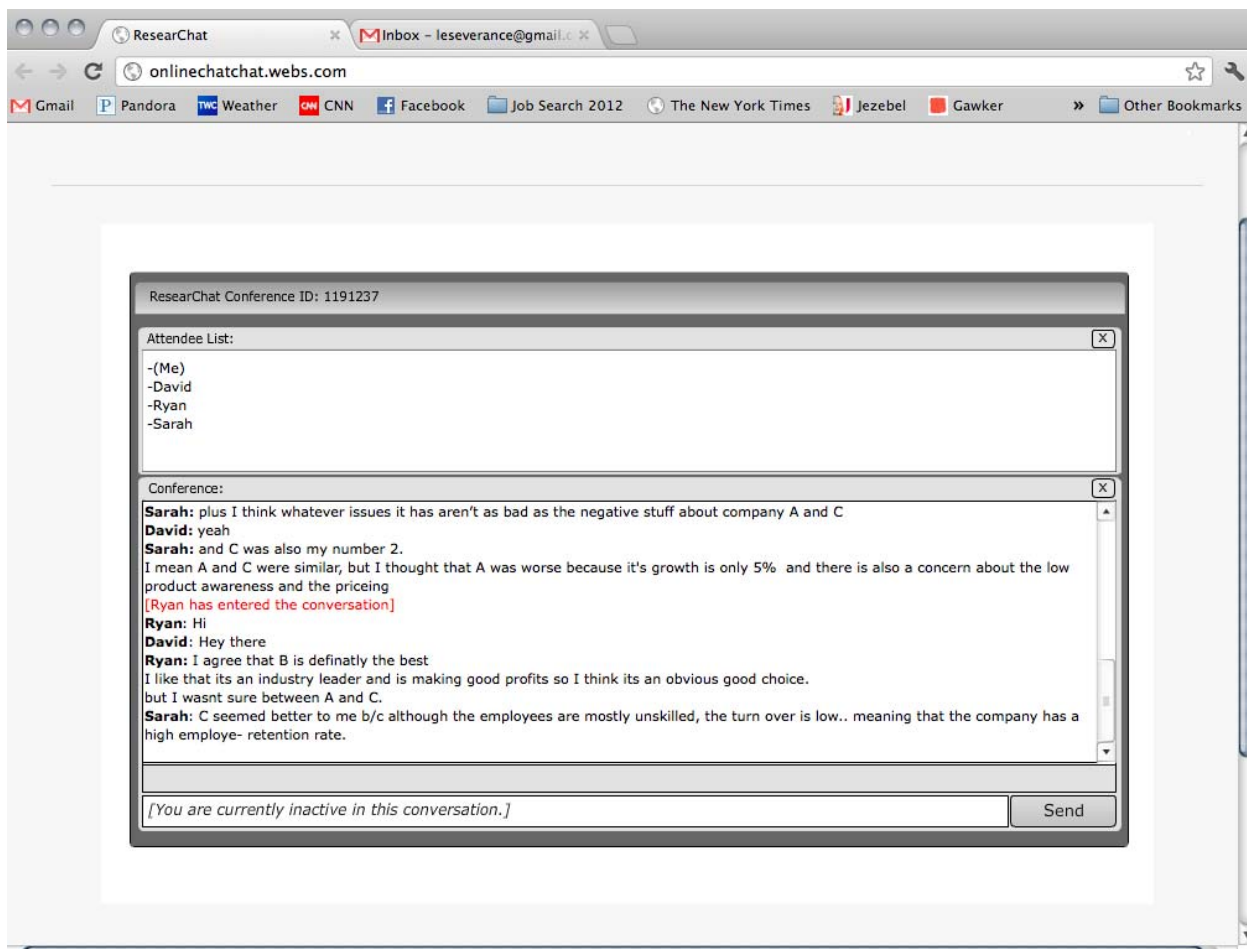*Figure B2.* Screenshot of conference while participant is waiting for ostensible participants to join.

Figure B3. Sample screenshot of conference text.

Appendix C

Words Included in Dissent Dictionary

A
accounting
achieve
acme
acquir*
actively
age
ago
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Appendix D

Explanation and Results of Additional Dissent Measure

Dissent was also calculated using McLeod et al.'s (1997) coding scheme, which is focused on identifying instances in which the dissenter presents information only known to themselves (i.e., unique information). For this measure, dissent was calculated as the number of speaking turns in which the dissenter provided these unique pieces of information divided by the total number of speaking turns in the conversation. A subset of 20 conversations were coded by both the author and a research assistant and exhibited good interrater reliability at $r(20)=0.97$, $p<.001$. This measure of dissent correlated with the LIWC measure of dissent at $r(57)=.575$, $p<.001$. However, this measure is arguably less accurate than the LIWC measure because it does not account for variations in the length of speaking turns. This is important because some speaking turns were as short as a single word (e.g., "yeah") while others were several sentences. As such, the LIWC measure provided a more refined measure of dissent. Results using the McLeod et al. (1997) dissent measure were largely congruent with the results obtained using the LIWC measure and are reported below.

The effect of group composition on dissent as measured using McLeod's coding scheme was not significant ($F(2,54)=.836$, $p=.439$), although means did follow the same pattern as the LIWC dissent measure; female-dominated groups had the highest level of dissent ($M=.0895$, $SD=.0744$), followed by mixed gender groups ($M=.0851$, $SD=.0615$) and then male-dominated groups ($M=.0631$, $SD=.0341$).

The correlations between the McLeod measure of dissent and study variables are displayed in the column on the left while the correlations between the LIWC measure of

dissent and study variables are displayed in the column on the right in the Table D1

(below). Note that these are largely congruent.

Table D1

Correlation Comparison of McLeod and LIWC Dissent Measures and Study Variables

Variable	McLeod Measure	LIWC Measure
Race	.144	.055
Dissenter Age	-.035	.144
Group Age	.289*	.230
Age Difference	.161	-.024
Previous Rel.	-.017	.078
Group Performance	.507**	.574**
Backlash	-.123	-.177
Femininity	-.164	-.122
Masculinity	.289*	.358**
Competence	.176	.320*
Status viol.	.151	.178
Similarity	-.030	-.053
Relationality	.012	-.111
Courage	.334*	.351**
Exp. Backlash	-.401**	-.354**
Exp. Femininity	-.077	-.168
Exp. Masculinity	.484**	.434**
Exp. Competence	.464**	.421**
Exp. Status Viol.	.240	.333*
Exp. Similarity	.123	.276*
Exp. Relationality	.126	.043
Exp. Courage	.391**	.271*
Empowerment	.468**	.533**
Psych. Safety	.379**	.322*

It is important to note that the McLeod measure of dissent correlated with group

performance at $r(57)=.507$, $p<.001$, which is similar to the correlation between the LIWC

measure and performance (which was $r(57)=.574$, $p<.001$). The McLeod measure of

dissent did not interact with group composition to predict group performance

$(F(2,51)=.503$, $p=.608)$

The McLeod measure of dissent interacted with group performance to predict psychological safety experienced by the dissenter, and findings are consistent with those using the LIWC dissent measure (see Tables D2 and D3). The McLeod measure did not interact with dissent to predict evaluations of the dissenter as courageous ($F(2,51)=1.12$, $p=.334$), which is inconsistent with findings obtained using the LIWC measure.

Table D2

Results of Stepwise Regression Examining Effects of Dissent and Group Composition on Psychological Safety

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	(dfs)
Step 1				.169	.169	3.589*	(3,53)
Dissent	7.503	2.580	.370**				
Mixed_Gender_Dummy	.394	.357	.155				
Male_Dominated_Dummy	-.024	.409	-.008				
Step 2				.259	.090	3.085†	(2,51)
Dissent	4.489	3.382	.221				
Mixed_Gender_Dummy	.369	.345	.145				
Male_Dominated_Dummy	.337	.423	.117				
Dissent*Mixed_Gender_Dummy	3.176	5.233	.096				
Dissent*Male_Dominated_Dummy	24.227	9.755	.354*				

Note. †$p<.10$. *$p<.05$. **$p<.001$.

Table D3

Simple Slopes Results Displaying the Relationship Between Dissent and Psychological Safety by Group Condition

Group	β	$t(51)$
Female-Dominated	0.325	1.329
Mixed Gender	0.348	1.921†
Male-Dominated	0.714	3.141**

Note. †$p<.10$. *$p<.05$. **$p<.001$.

The McLeod dissent measure interacted with group composition to predict anticipated backlash ($F(2,51)=3.55$, $p=.037$; see Table D4) and empowerment ($F(2,51)=4.449$, $p=.017$; see Table D6)- findings that did not emerge with the LIWC dissent measure.

Women in female- and male-dominated groups expected *less* backlash for dissenting whereas dissent and expected backlash were unrelated in mixed gender groups (see Table D5).

Table D4

Results of Stepwise Regression Examining Effects of Dissent and Group Composition on Anticipated Backlash

Predictor	B	$SE\ B$	β	R^2	ΔR^2	ΔF	(dfs)
Step 1				.164	.164	3.464[*]	(3,53)
Dissent	-7.775	2.456	-.404[**]				
Mixed_Gender_Dummy	-.150	.339	-.062				
Male_Dominated_Dummy	-.092	.389	-.034				
Step 2				.266	.102	3.533[*]	(2,51)
Dissent	-9.103	3.194	-.473[**]				
Mixed_Gender_Dummy	-.181	.326	-.075				
Male_Dominated_Dummy	-.448	.400	-.164				
Dissent*Mixed_Gender_Dummy	6.786	4.943	.216				
Dissent*Male_Dominated_Dummy	-17.605	9.214	-.271[†]				

Note. [†]$p<.10$. [*]$p<.05$. [**]$p<.001$.

Table D5

Simple Slopes Results Displaying the Relationship Between Dissent and Anticipated Backlash by Group Condition

Group	β	$t(51)$
Female-Dominated	-0.513	-2.852[**]
Mixed Gender	-0.141	-0.615
Male-Dominated	-0.703	-3.093[**]

Note. †*p*<.10. **p*<.05. ***p*<.001.

The link between dissent and empowerment appeared strongest in male-dominated relative to mixed gender and female-dominated groups (see Table D7).

Table D6

Results of Stepwise Regression Examining Effects of Dissent and Group Composition on Empowerment

Predictor	B	SE B	β	R^2	ΔR^2	ΔF	(dfs)
Step 1				.220	.220	4.974**	(3,53)
Dissent	13.054	3.460	.465**				
Mixed_Gender_Dummy	-.055	.478	-.016				
Male_Dominated_Dummy	-.096	.548	-.024				
Step 2				.336	.116	4.449*	(2,51)
Dissent	10.474	4.431	.373*				
Mixed_Gender_Dummy	-.065	.452	-.018				
Male_Dominated_Dummy	.509	.555	.128				
Dissent*Mixed_Gender_Dummy	-.376	6.856	-.008				
Dissent*Male_Dominated_Dummy	36.992	12.781	.391**				

Note. †*p*<.10. **p*<.05. ***p*<.001.

Table D7

Simple Slopes Results Displaying the Relationship Between Dissent and Empowerment by Group Condition

Group	β	t(51)
Female-Dominated	0.449	2.366*
Mixed Gender	0.396	1.932†
Male-Dominated	0.800	3.964**

Note. †*p*<.10. **p*<.05. ***p*<.001.

References

Allen, V. L., & Wilder, D. A. (1979). Group categorization and attribution of belief similarity. *Small Group Behavior, 10*, 73–80.

Alvesson, M. (1990). Organization: From substance to image? *Organization Studies,* 11, 373-394.

Amanatullah, E. T. & Morris, M. W. (2010). Negotiating gender roles: Gender differences in assertive negotiating are mediated by women's fear of backlash and attenuated when negotiating on behalf of others. *Journal of Personality and Social Psychology, 98,* 256-267.

Anderson, C. P., Ames, D. R., & Gosling, S. D. (2008). Punishing hubris: The perils of status self-enhancement in teams and organizations. *Personality and Social Psychology Bulletin, 34,* 90-101.

Anderson, C., Srivastava, S., Beer, J. S., Spataro, S. E., & Chatman, J. A. (2006). Knowing your place: Self-perception of status in face-to-face groups. *Journal of Personality and Social Psychology, 91,* 1094-1110.

Anderson, C.A., Lindsay, J.J., & Bushman, B.J. (1999). Research in the psychological laboratory: Truth or triviality? *Current Directions in Psychological Science, 8*, 3-9.

Asch, S. E. (1956). Studies of independence and conformity: A minority of one against a unanimous majority. *Psychological Monographs, 70 (Whole no. 416).*

Barreto, M. & Ellemers, N. (2005). The perils of political correctness: Men's and women's responses to old-fashioned and modern sexist views. *Social Psychology Quarterly, 68,* 75-88.

Barry, B. & Shapiro, D. L. (2000). When will grievants choose voice? : A test of situational, motivational, and attributional explanations. *International Journal of Conflict Management, 1,* 106-134.

Bass, B. M., & Riggio, R. E. (2006). Transformational leadership (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Bazarova, N. N., Walther, J. B., & McLeod, P. L. (2012). Minority influence in virtual groups: A comparison of four theories of minority influence. *Communication Research, 39 ,* 295-316.

Becker, J.C. (2010). Why do women endorse hostile and benevolent sexism? The role of salient female subtypes and personalization of sexist contents. Sex Roles, 62, 453-467.

Becker, J.C., & Wagner, U. (2009). Doing gender differently – The interplay of strength of gender identification and content of gender identity in predicting women's endorsement of sexism. *European Journal of Social Psychology, 39,* 487-508.

Beer, M. & Eisenstat, R. A. (2000). The silent killers of strategy implementation and learning. *Sloan Management Review, 4,* 29-40.

Behrend, T., Sharek, D. J., Meade, A. W., & Wiebe, E. N. (2011). The viability of crowdsourcing for survey research. *Behavior Research Methods.* Advanced online publication.

Bem, S. L. (1974). The measurement of psychological androgyny. J*ournal of Consulting and Clinical Psychology. 42*, 155-62.

Bem, S. L. (1976). Sex typing and the avoidance of cross-sex behavior. *Journal of Personality and Social Psychology, 33*, 48.

Berger, J. & Conner, T. L. (1969) Performance Expectations and Behavior in Small

    Groups. *Acta Sociologica 12*, 186–198.

Biernat, M., & Kobrynowicz, D. (1997). Gender- and race-based standards of

    competence: Lower minimum standards but higher ability standards for devalued

    groups. *Journal of Personality and Social Psychology, 72,* 544–557.

Biernat, M., & Vescio, T. K. (2002). She swings, she hits, she's great, she's benched:

    Implications of gender-based shifting standards for judgment and behavior.

    Personality and Social Psychology Bulletin, 28, 66-77.

Biernat, M., Vescio, T. K., & Billings L. S. (1999). Black Sheep and expectancy

    violation: Integrating two models of social judgment. *European Journal of Social*

    Psychology. 29, 523-542.

Bies, R. J., & Shapiro, D. L. (1988). Voice and justification: Their influence on

    procedural fairness judgments. *Academy of Management Journal, 31,* 676–685.

Black, D. C. (1976). *The behavior of law.* New York: Academic Press.

Bond, P. B., & Smith, M. H. (1996). Culture and conformity: A meta-analysis of studies

    using Asch's (1952b, 1956) line judgment task. Psychological Bulletin. v119 i1.

    111-137.

Bowles, H. R., & Flynn, F. 2010. Gender and persistence in negotiation: A dyadic

Bowles, H. R., & Gelfand, M. J. (2010). Status and the evaluation of workplace deviance.

    Psychological Science, 21, 49-54.

Bowles, H. R., Babcock, L., & Lai, L. (2007). Social incentives for gender differences in

    the propensity to initiate negotiations: Sometimes it does hurt to ask.

    Organizational Behavior and Human Decision Processes, 103, 84-103.

Brescoll, V. L. (2012). Who takes the floor and why: Gender, power, and volubility in

organizations. *Administrative Science Quarterly, 56*, 621-640.

Brescoll, V., & Moss-Racusin, C. (2007). How to walk the tightrope of "nice and able":

Overcoming workplace challenges for female bosses. *Psychology of Women*

Quarterly, 31, 217-218.

Bryson, J.M., & Crosby, B.C. (1992). *Leadership for the Common Good:* Tackling

public problems in a shared-power world. San Francisco: Jossey- Bass.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A

new source of inexpensive yet high-quality, data? *Perspectives on Psychological*

Science, 6(1), 3-5.

Buttner, E.H., & McEnally, M. (1996). The interactive effect of influence tactic,

applicant gender, and type of job on hiring recommendations. *Sex Roles, 34,* 581-

591.

Byrne, D.; London, O.; Reeves, K. (1968). "The effects of physical attractiveness, sex,

and attitude similarity on interpersonal attraction". *Journal of Personality* ,36,

259–271

Carli, L. L. (1989). Gender differences in interaction style and influence. *Journal of*

Personality and Social Psychology, 56, 565-576.

Carli, L. L. (1990). Gender, language, and influence. *Journal of Personality and Social*

Psychology, 59, 941–951.

Carli, L. L., & Eagly, A. H. (1999). Gender effects on social influence and emergent

leadership. In G. N. Powell (Ed.), Handbook of gender and work (pp. 203–222).

Thousand Oaks, CA:Sage Publications.

Chen, F. F., & Kenrick, D. T. (2002). Repulsion or attraction? Group membership and assumed attitude similarity. *Journal of Personality and Social Psychology, 83*, 111–125.

Chen, X., & Kruglanski, A. W. (2009). Toward a theory of terrorism: Human security as a determinant of terrorism. *Studies in Conflict and Terrorism, 29,* 773-796.

Chung, C., & Pennebaker, J. (2007). The psychological functions of function words. In K. Fiedler (Ed.) Social Communication (pp. 345-359). New York: Psychology Press.

Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity, and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), The handbook of social psychology (4th ed., Vol. 2, pp. 151– 192). Boston: McGraw-Hill.

Clore, G. L., & Byrne, D. A. (1974). A reinforcement-affect model of attraction. In T. L. Huston (Ed.), *Foundations of interpersonal attraction* (pp. 143–165). New York: Academic Press.

Collins, P H. (2000). *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment*. New York: Routledge.

Conway, M., & Vartanian, L. R. (2000). A status account of gender stereotypes: Beyond communality and agency. *Sex Roles, 43,* 181-199.

Cortina, L. M. & Magley, V. J. (2003). Raising voice, risking retaliation: Events following mistreatment in the workplace. *Journal of Occupational Health Psychology, 8*, 247-265.

Craig, J.M., & Sherif, C. W. (1986). The effectiveness of men and women in problem-

solving groups as a function of group gender composition. *Sex Roles, 14,* 453-

466.

Cross, S. E., & Madson, L. (1997). Models of the self: Self- construals and gender.

Psychological Bulletin, *122*, 5–37.

Cross, S. E., Bacon, P. L., & Morris, M. L. (2000). The relational- interdependent self-

construal and relationships. *Journal of Personality and Social Psychology, 78*,

191–208.

Cross. S. E., Morris, M. L., & Gore, J. S. (2002). Thinking about oneself and others: The

relational-interdependent self- construal and social cognition. *Journal of*

Personality and Social Psychology, 3, 399–418

De Dreu, C. K. W., & Beersma, B. (2001). Minority dissent in organizations: Its origins

and implications for learning and group performance. In C. K. W. De Dreu and N.

K. De Vries (Eds.), *Group consensus and minority influence: Implications for*

innovation. (pp. 258-283). Oxford, UK: Blackwell.

De Dreu, C. K. W., & de Vries, N. K. (1997). Minority dissent in organizations. In C. De

Dreu & E. Van de Vliert (Eds.), *Using conflict in organizations* (pp. 72-86).

Thousand Oaks, CA: Sage.

De Dreu, C. K. W., De Vries, N. K., Franssen, H., Altink, W. M. M. (2000). Minority

dissent in organizations: Factors influencing willingness to dissent. *Journal of*

Applied Social Psychology, 30, 2451-2466.

De Dreu, C. W., & West, M. A. (2001). Minority dissent and team innovation: The
importance of participation in decision making. *Journal of Applied Psychology*,
86(6), 1191-1201

De Vries, N. K., De Dreu, C. K. W., Gordijn, E., & Schuurman, M. (1996). Majority and
minority influence: A dual role in interpretation. In W. Stroebe & M. Hewstone
(Eds.), *European review of social psychology* (Vol. 7, pp. 145-172). Chichester,
UK: Wiley.

Deaux, K., & Major, B. Sex-related patterns in the unit of perception. (1987). Personality
and Social Psychology Bulletin, 1977, 3, 297-300.

Deaux, K., & Wrightsman, L. S. (1984). *Social psychology in the 80's* (4th ed.).
Monterey, CA: Brooks/Cole.

DePaulo, B. M., & Friedman, H. S. (1998). Nonverbal communication. In D. T. Gilbert,
S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp.
3–40). New York: McGraw-Hill.

Derks, B., Van Laar, C., Ellemers, N., & De Groot, K. (2011). Gender bias primes elicit
queen bee responses among senior police women. *Psychological Science, 22*,
1243-1249.

Detert, J. R. & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door
really open? *Academy of Management Journal, 50*, 869-884.

Detert, J. R., & Edmondson, A.C. (2011). Implicit Voice Theories: Taken-for-granted
Rules of Self-censorship at Work. *Academy of Management Journal, 54*, 461–
488.

Detert, J.,R. & Edmondson, A. C. (2005). No exit, no voice: The bind of risky voice

opportunities in organizations. Paper presented at the annual meeting of the

Academy of Management, Honolulu, HI.

Deuchar, M. (1988). A pragmatic account of women's use of standard speech. In J.

Coates and D. Cameron (Eds.) *Women in their speech communities: New*

perspectives on language and sex (pp. 27-32).. London: Longman.

Dooley, R. S., & Fryxell, G.E. (1999). Attaining decision quality and commitment from

dissent: The moderating effects of loyalty and competence in strategic decision-

making teams. *Academy of Management Journal, 42,* 389-402.

Dion, K. K., Berscheid, E., & Walster, E. (1972). What is beautiful is what is good.

Journal of Personality and Social Psychology, 24, 285-290.

Duguid, M. (2011). Female tokens in high-prestige work groups: Catalysts or inhibitors

of group diversification? *Organizational Behavior and Human Decision*

Processes, 116, 104-115.

Dutton, J. E., & Ashford, S.J. (1993). Selling issues to top management. *Academy of*

Management Review, 18, 397-428.

Eagly, A. H. (1987) *Sex differences in social behavior: A social-role interpretation.*

Hillsdale, NJ: Erlbaum.

Eagly, A. H., & Carli, L. L. (2007). Women and the labyrinth of leadership. *Harvard*

Business Review.

Eagly, A. H., & Wood, W. (1982). Inferred sex differences in status as a determinant of

gender stereotypes about social influence. *Journal of Personality and Social*

Psychology, *43*, 915–928.

Eagly, A. H., Wood, W., & Diekman, A. B. (2000). Social role theory of sex differences

and similarities: A current appraisal. *The Developmental Social Psychology of*

*Gender,*123-174.

Elfenbein, H. A., & O'Reilly, C. A., III. (2007). Fitting in: The effects of relational

demography and person-culture fit on group process and performance. *Group*

Organization Management, 32, 109-142.

Ely, R. (1994). The effects of organizational demographics and social identity on

relationships among professional women. *Administrative Science Quarterly, 39,*

203-238.

Festinger, L. (1950). Informal social communication. *Psychological Review, 57*, 271-282.

Fiske, S. T. & Depret, E. (1996). Control, interdependence and power: Understanding

social cognition in its social context. In W. Stroebe & M. Hewstone (Eds.),

European review of social psychology (Vol. 7, pp. 31–61). Chichester, United

Kingdom: Wiley.

Fiske, S. T. & Taylor, S. E. (1991). *Social cognition* (2nd edn.). New York: McGraw

Hill.

Fiske, S. T. (1993). Controlling other people. The impact of power on stereotyping.

American Psychologist, 48, 621–628.

Frost, P. J., & Egri, C. P. (1991). The organizational politics of sustainable development.

11th Annual International Conference of the Strategic Management Society on

"The Greening of Strategy -- Sustaining Performance", Toronto, ON.

Gabriel, S., & Gardner, W. L. (1999). Are there "his" and "hers" type of

interdependence? The implications of gender differences in collective versus

relational interdependence for affect, behavior, and cognition. *Journal of Personality and Social Psychology, 77,* 642-655.

Galinsky, A. D., Gruenfeld, D. H, & Magee, J. C. (2003). From power to action. Journal of Personality and Social Psychology, 85, 453-466.

Galinsky, A. D., Magee, J. C., Gruenfeld, D. H., Whitson, J. A., & Liljenquist, K. A. (2008). Social power reduces the strength of the situation: Implications for creativity, conformity, and dissonance. *Journal of Personality and Social Psychology, 95,* 1450–1466.

Garcia-Retamero, R. & Lopez-Zafra, E. (2006). Prejudice against women in male-congenial environments: Perceptions of gender role congruity in leadership. *Sex Roles, 55,* 51-61.

Garvin, D. A. (2000). *Learning in Action. A guide to putting the learning organization to work.* Boston, MA: Harvard Business School Press.

Gelfand, M. J., Major, V. S., Raver, J., Nishii, L., & O'Brien, K. (2006). Negotiating relationally: The dynamics of the relational self in negotiations. *Academy of Management Review, 31,* 427-45.

Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., et al. (2011). Differences between tight and loose cultures: A 33-nation study. *Science, 33, 110-1104.*

Gentile, M. C. (2010). Keeping your colleagues honest. *Harvard Business Review, 88*, 114-117.

Glick, P., S. T. Fiske, Mladinic, A., Saiz, J. L., Abrams, D., & Masser, B. (2000). *Beyond prejudice as simple antipathy: Hostile and benevolent sexism across cultures*. Journal of Personality and Social Psychology, 79, 763-775.

Goltz, S. (2005). Women's appeals for equity at American universities. *Human Relations, 58*(6), 763-797.

Goncalo, J. A., & Staw B. M. (2006). Individualism-collectivism and group creativity. *Organizational Behavior and Human Decision Process, 100*, 96-109.

Gruenfeld D. H., Thomas-Hunt, M. C, & Kim, P. H. (1998). Cognitive flexibility, communication strategy and integrative complexity in groups public versus private reactions to majority and minority status. *Journal of Experimental Social Psychology, 34*, 202-226.

Hackman, J. R., & Morris, C.G. (1975). Group tasks, group interaction process, and group performance effectiveness: A review and proposed integration. *Advances in Experimental Social Psychology, 9*, 45-99.

Hall, J. A. (2006). Women's and men's nonverbal communication: Similarities, differences, stereotypes, and origins. In V. Manusov & M.L. Patterson (Eds.), *The Sage Handbook of Nonverbal Communication* (pp. 201-218). Thousand Oaks, CA: Sage Publications.

Heilman, M. E., & Chen, J. J. (2005). Same behavior, different consequences: Reactions to men's and women's altruistic citizenship behavior. *Journal of Applied Psychology, 90,* 431-441.

Heilman, M. E., & Haynes, M. C. (2005). Attributional rationalization of women's success in mixed-sex teams: No credit where credit is due. *Journal of Applied Psychology, 90*, 905-916.

Heilman, M. E., & Okimoto, T. G. (2007). Why are women penalized for success at male tasks?: The implied communality deficit. *Journal of Applied Psychology, 92(1)*, 81-92.

Heilman, M. E., & Okimoto, T. G. (2008). Motherhood: A potential source of bias in employment decisions. *Journal of Applied Psychology, 93,* 189-198.

Heilman, M. E., & Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology, 89,* 416-427.

Heilman, M. E., Block, C. J., Martell, R. F., & Simon, M. C. (1989). Has anything changed? Current characterizations of men, women, and managers. *Journal of Applied Psychology, 74*, 935–942.

Henley, N. (1977). *Body politics: Power sex, and nonverbal communication*. Englewood Cliffs, NJ: Prentice-Hall.

Henley, N. (1995). Body politics revisited: What do we know today? In P. Kalbfleisch, & M. Cody (Eds.) *Gender, Power, and Communication in Human Relationships.* P. 27-61. Hillsdale, NJ: Lawrence Erlbaum.

Henry, P. J. (2009). College sophomores in the laboratory redux: Influences of a narrow database on social psychology's view of the nature of prejudice. *Psychological Inquiry*, 19, 49– 71.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94,* 319-340.

Hirschman, A. O. (1970). Exit, voice, and loyalty: Responses to decline in firms, organizations, and states. Cambridge, MA: Harvard University Press.

Hollander, E. P. (1958). Conformity, status, and idiosyncrasy credit. *Psychological Review, 65,* 117–127.

Homans, G. C. (1950). The human group. New York: Harcourt Brace.

Ibarra, H. (1993). Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review, 18*, 56-87.

Ibarra, H., Carter, N. M., & Silva, C. (2010). Why men still get more promotions than women. *Harvard Business Review, 88*(9), 80-126.

Izraeli, D. N. (1993). They have eyes and see not: Gender politics in the Diaspora Museum. *Psychology of Women Quarterly* 17:515–23.

Jackman, M. R. (1994). *The velvet glove: Paternalism and conflict in gender, class, and race relations*. Berkeley: University of California Press.

Janis, I. (1972). *Victims of Groupthink*. Boston: Houghton Mifflin.

Jehn, K. A. (1994). Enhancing Effectiveness: An Investigation of Advantages and Disadvantages of Value-Based Intragroup Conflict. *International Journal of Conflict Management, 5*, 223-238.

Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology, 33*, 1–27.

Kanter, R. M. (1977) Men and Women of the Corporation. New York: Basic Books.

Kashima, Y., Yamaguchi, S., Kim, U., Choi, S., Gelfand, M. J., & Yuki, M. (1995). Culture, gender, and self: A perspective from individualism-collectivism research. *Journal of Personality and Social Psychology*, 69, 925-937.

Keltner, D., & Robinson, R. J. (1997). Defending the status quo: Power and bias in social conflict. *Personality and Social Psychology Bulletin, 23*, 1066-1077.

Khan, S. R. & Lambert, A. J. (1998). Ingroup favoritism and black sheep effects in observations of informal conversations. *Basic and Applied Social Psychology, 20,* 263-269.

Killianski, S. E., & Rudman, L. A. (1998). Wanting it both ways: Do women approve of benevolent sexism? *Sex Roles*, 39, 333-352.

Klaas, B. S., & DeNisi, A.S. (1989). Managerial reactions to employee dissent: The impact of grievance activity on performance ratings. *Academy of Management Journal*, 32, 705-715.

Lakoff, R. (1975). Language and Woman's Place. New York: Harper & Row.

Leaper, C., & Ayres, M. (2007). A meta-analytic review of gender variations in adults' language use: Talkativeness, affiliative speech, and assertive speech. *Personality & Social Psychology Review*, 11, 328-363.

LePine, J.A., & Van Dyne, L. (1998). Predicting voice behavior in work groups**.** *Journal of Applied Psychology, 83*, 853-868.

Leslie, L. M., & Gelfand, M. J. (2008). The who and when of internal gender discrimination claims: An interactional model. *Organizational Behavior and Human Decision Processes, 107,* 123-140.

Levine, J. M. (1980). Reaction to opinion in small groups. In In P. Paulus (Ed.).

 Psychology of Group Influence: New Perspectives (375-429). Erlbaum: Hillsdale,

 NJ.

Liang, J., Farh, C. I. C. & Farh, J. L. (2012). Psychological antecedents of promotive and

 prohibitive voice: A two-wave examination. *Academy of Management Journal*,

 55: 71-92.

Locke, E. A. (1986). Job attitudes in historical perspective. In D. Wren & J. Pearce

 (Eds.), Papers dedicated to the development of modern management, Academy of

 Management, 5-11.

Magee, J.C., & Galinsky, A. (2008). Social hierarchy: The self- reinforcing nature of

 power and status. In J.P. Walsh & A.P. Brief (Eds.), Academy of management

 annals (Vol. 2, 351–398). Philadelphia: Routledge Taylor & Francis Group.

Mannetti, L., Levine, J. M., Pierro, A., & Kruglanski, A. W. (2010). Group reaction to

 defection: The impact of shared reality. *Social Cognition, 28,* 447-464.

Markus, H., Smith, J., & Moreland, R. L. (1985). Role of the self-concept in the

 perception of others. *Journal of Personality and Social Psychology, 49,* 1494-

 1512.

Marques, J. M, Yzerbyt, V. Y., & Leyens, J. P. (1988). The black sheep effect:

 Judgmental extremity towards ingroup members as a function of group

 identification. *European Journal of Social Psychology, 18,* 1-16.

Marques, J. M. (1990). The black-sheep effect: Out-group homogeneity in social

 comparison settings. In D. Abrams & M. Hogg (Eds). *Social identity theory:*

 Constructive and critical advances (pp.131-151). London: Harvester Wheatsheaf.

Marques, J. M., Robalo, E. M. & Rocha, S. A. (1992). Ingroup bias and the 'black sheep effect': Assesing the inpact of social identification and perceived variability on group judgements. *European Journal of Social Psychology*, *22,* 331 – 352.

Marques, J., Abrams, D., Paez, D., & Hogg, M. (2001). Social categorization, social identification, and rejection of deviant group members. *Blackwell Handbook of Social Psychology, 3*, 400 – 424.

Mast, M. S. (2001). Gender differences and similarities in dominance hierarchies in same-gender groups based on speaking time. Sex Roles, 44 (9-10), 537-556.

McLeod, P., Baron, R., Marti, M., & Yoon, K. (1997). The eyes have it: Minority influence in face-to-face and computer-mediated group discussion. *Journal of Applied Psychology, 82*, 706–718.

Miceli, M. P., Dworkin, T. M., & Near, J. P. (2008). *Whistle-blowing in organizations.* NY: Taylor & Francis.

Miceli, M. P., Rehg, M., Near, J. P., & Ryan, K. C. (1999). Can laws protect whistle-blowers? Results of a naturally occurring field experiment. *Work and Occupations, 26,* 129 – 151.

Milliken, F. J., Morrison, E. W., & Hewlin, P. F. (2003). An exploratory study of employee silence: Issues that employees don't communicate upward and why. *Journal of Management Studies, 40*, 1453 – 1476.

Mills, S. (2003). Gender and Politeness. Cambridge: Cambridge University Press.

Mischel, W. (1968). *Personality and assessment.* New York: Wiley

Morrison, E. W. (2011a). Employee voice behavior: Integration and directions for future research. *The Academy of Management Annals, 5*(1), 373-412.

Morrison, K. R. (2011b). A license to speak up: Outgroup minorities and opinion

    expression. *Journal of Experimental Social Psychology, 47*, 756-766.

Morrison, E. W. & Milliken, F. J. (2000). Organizational silence: A barrier to change and

    development in a pluralistic world. *Academy of Management Review, 25*, 706–

    731.

Morrison, E. W., Wheeler-Smith, S. L., & Kamdar, D. (2011). Speaking up in groups: a

    cross-level study of group voice climate and voice. *The Journal of Applied*

    Psychology, *96*(1), 183–91.

Moscovici, S. (1976). Social influence and social change. London: Academic Press.

Mowday, R. T. (1978). The exercise of upward influence in organizations. *Administrative*

    Science Quarterly, 23, 137–156.

Nemeth, C. J. (1986). Differential contributions of majority and minority influence.

    Psychological Review, 93, 23 – 32.

Nemeth, C. J., & Chiles, C. (1988). Modeling courage: The role of dissent in fostering

    independence. *European Journal of Social Psychology, 18,* 275-280.

Nemeth, C. J., & Goncalo, J. A. (2011). Rogues and heroes: Finding value in dissent. In

    J. Jetten & M. Hornsey (Eds.), *Rebels in Groups: Dissent, deviance, difference*

    and defiance. London: Blackwell.

Nemeth, C. J., & Kwan, J. (1985). Originality of word associations as a function of

    majority vs. minority influence. *Social Psychology Quarterly, 48,* 277–282.

Noelle-Neumann, E. (1974). The spiral of silence: a theory of public opinion. *Journal of*

    Communication, Spring, 43-5

O'Connor, B. P. (1998). All-in-one programs for exploring interactions in moderated

multiple regression. *Educational and Psychological Measurement, 58*, 833-837.

Parks-Stamm, E. J., Heilman, M. E., & Hearns, K. A. (2008). Motivated to penalize:

Women's strategic rejection of successful women. *Personality and Social

Psychology Bulletin, 34,* 237-247.

Pennebaker, J. W., Francis, M. E., & Booth, R. J. (2001). Linguistic Inquiry and Word

Count (LIWC) Manual. Mahwah, NJ: Erlbaum Publishers.

Perlow, L., & Repenning, N. (2009). The dynamics of silencing conflict. *Research in

Organizational Behavior 29*, 195-223

Perlow, L., & Williams, S. (2003). Is silence killing your company? *Harvard Business

Review, 81,* 52-58.

perspective. *Academy of Management Journal,* 53, 769-787.

Peterson, R.S., Owens, P.D., Tetlock, P.E., Fan, E.T. & Martorana, P.V. (1998). Group

dynamics in top management teams: Groupthink, vigilance and alternative models

of organizational failure and success. *Organizational Behavior and Human

Decision Processes, 73,* 272-305.

Phelan, J. E., Moss-Racusin, C. A., & Rudman, L. A. (2008). Competent yet out in the

cold: Shifting criteria for hiring reflect backlash toward agentic women.

Psychology of Women Quarterly, 32(4), 406-413.

Phillips, K. W. (2003). The effects of categorically based expectations on minority

influence: The importance of congruence. *Personality and Social Psychology

Bulletin, 29,* 3-13.

Phillips, K. W., & Loyd, D. L. (2006). When surface and deep-level diversity collide: The effects on dissenting group members. *Organizational Behavior and Human Decision Processes*, *99*, 143-160.

Phillips, K. W., Mannix, E., Neale, M., & Gruenfeld, D. (2004). Diverse groups and information sharing: The effects of congruent ties. *Journal of Experimental Social Psychology, 40*, 498–510.

Phillips, K. W., Northcraft, G. B., & Neale, M. A. (2006). Surface level diversity and decision-making in groups: When does deeplevel similarity help? *Group Processes and Intergroup Relations, 9*, 467-482.

Prince-Gibson, E., & Schwartz, S. H. (1994). Cross-cultural gender differences in value priorities: A meta-analysis. Paper presented at the Twentieth Congress of the International Association for Cross-Cultural Psychology, Pamplona, Spain, July, 1994.

Ragins, B. R., & Cotton, J. L. (1996). Jumping the hurdles: Barriers to mentoring for women in organizations. *Leadership and Organization Development Journal, 17*, 37-41.

Ragins, B. R., & Sundstrom, E. (1989). Gender and power in organizations: A longitudinal perspective. *Psychological Bulletin, 105,* 51–88.

Ridgeway, C. L. (2001). Gender, Status, and Leadership. *Journal of Social Issues, 57*, 637-655.

Ridgeway, C. L., & Berger, J. (1986). Expectations, legitimation, and dominance behavior in task groups. *American Sociological Review, 51,* 603-617.

Rigg, C., & Sparrow, J. (1994). Gender, diversity and working styles. *Women in Management Review*, *9*(1), 9-16.

Roth, L. M. (2004). The social psychology of tokenism: Status and homophily processes on Wall Street. *Sociological Perspectives, 47,* 189-214.

Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology, 74,* 629-645.

Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues, 4,* 743-762.

Rudman, L. A., & Phelan, J. E. (2008). Backlash effects for disconfirming gender stereotypes in organizations. In A. P. Brief & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 4, pp. 61-79). New York: Elsevier.

Ruffle, B. J., & Shtudiner, Z. (November, 2010> Are good looking people more employable? Available at SSRN: http://ssrn.com/abstract=1705244 or http://dx.doi.org/10.2139/ssrn.1705244

Salmon, E., Severance, L., Aiken, J., Gelfand, M. J., Bowles, H. R., & Babcock, L. (2011). Negotiating to no: Gender and resistance to undesirable requests. In Olekalns, M., Kulick, C. T., & Simonov, D. (Chairs). Navigating gendered landscapes: How and when should women negotiate? Symposium presented at the Academy of Management Annual Meeting, San Antonio, TX.

Santee, R. T., & Jackson, S. E. (1982). Sex differences in the evaluative implications of conformity and dissent. *Social Psychology Quarterly, 45,* 121-125.

Schachter, S. (1951). Deviation, rejection and communication. *Journal of Abnormal Social Psychology, 4,* 190-207.

Schilit, W. K. (1987). An examination of the influence in middle-level managers in formulating and implementing strategic decisions. *Journal of Management Studies, 24,* 271-293.

Schilit, W. K., & Locke, E. A. (1982). A study of upward influence in organizations. *Administrative Science Quarterly, 27*(2), 304-316.

Schilit, W. K., & Locke, E. A. (1982). A study of upward influence in organizations. *Administrarive Science Quarterly, 27*, 304-316.

Schmid Mast, M. (2001). Gender differences and similarities in dominance hierarchies in same-gender groups based on speaking time. *Sex Roles, 34,* 547–556.

Schweiger, D., Sandberg, W., & Rechner, P. (1989). Experimental effects of dialectical inquiry, devil's advocacy, and other consensus approaches to strategic decision making. *Academy of Management Journal, 32*, 745-772.

Schwenk, C., & Cosier, R. (1980). Effects of the expert, devil's advocate, and dialectical inquiry methods on prediction performance. *Organizational Behavior and Human Performance, 26*, 409-424.

Shaffer, E. S., & Prislin, R. (2011). Conversion vs. tolerance: Minority-focused influence strategies can affect group loyalty *Group Processes & Intergroup Relations, 14,* 755-766.

Shweder, R. A. & Bourne, E. J. (1982). Does the concept of the person vary cross-

culturally? In R. A. Shweder (Ed.) Thinking through cultures: Expeditions in

cultural psychology. Cambridge, MA: Harvard University Press.

Smith, C. L., & Stander, J. M. (1981). Human Interaction with computer stimulation: Sex

roles and group size. *Simulation and Games, 12,* 345-360.

Social Security Administration. (2012) *Baby Name Data*. Retrieved from

http://www.ssa.gov/oact/babynames.

Spence, J., & Buckner, C. (2000). Instrumental and expressive traits, trait stereotypes,

and sexist attitudes: What do they signify? *Psychology of Women Quarterly, 24*,

44-63.

Straw, B. M. (1984). Organizational behavior: A review and reformulation of the field's

outcome variables. *Annual Review of Psychology, 35,* 627-666.

Tajfel, H. (1982). *Social identity and intergroup relations.* Cambridge, England:

Cambridge University Press.

Tangirala, S., & Ramanujam, R. (2008). Employee silence on critical work issues: The

cross level effects of procedural justice climate. *Personnel Psychology 61*(1), 37-

68.

Taps, J., & Martin, P. Y. (1990). Gender composition, attributional accounts, and

women's influence and likability in task groups. *Small Group Research, 21*(4),

471-491.

Thomas-Hunt, M. C. & Phillips, K. W. (2004). When what you know is not enough:

Expertise and gender dynamics in task groups. *Personality and Social Psychology*

Bulletin, *30*, 1585-1598.

Tinsley, C. H. & Amanatullah, E. T., Backlash: Who does it, when, and why? (November

    9, 2008). IACM 21st Annual Conference Paper. Available at SSRN:

    http://ssrn.com/abstract=1298528 or http://dx.doi.org/10.2139/ssrn.1298528

Toosi, N. R., Sommers, S. R., & Ambady, N. (2012). Getting a word in group-wise:

    Effects of racial diversity on gender dynamics. *Journal of Experimental Social*

    Psychology, 48(5), 1150-1155.

Turner, J. C. (1975). Social comparison and social identity: Some prospects for

    intergroup bheavior. *European Journal of Social Psychology, 5*, 5-34.

Turner, J. C., (1985). Social categorization and the self-concept: A social cognitive

    theory of group behavior. *Advances in Group Processes, 2*, 77-122.

United States Department of Labor (2010a). Women in the labor force in 2010. Retrieved

    from http://www.dol.gov/wb/factsheets/Qf-laborforce-10.htm

United States Department of Labor (2010b). Quick stats on women workers. Retrieved

    from http://www.dol.gov/wb/factsheets/QS-womenwork2010.htm

Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence

    of construct and predictive validity. *Academy Of Management Journal, 41*(1),

    108-119.

Van Dyne, L., & Saavedra, R. (1996). A naturalistic minority influence experiment:

    Effects on divergent thinking, conflict, and originality in work-groups. *British*

    Journal of Social Psychology, 35, 151-167.

Van Dyne, L., Ang, S., & Botero, I.C. (2003). Conceptualizing employee silence and

    employee voice as multidimensional constructs. *Journal of Management*

    Studies,40, 22-238.

Van Dyne, L., Cummings, L.L., & McLean Parks, J. (1995). Extra-Role behaviors: In pursuit of construct and definitional clarity. In L. L. Cummings & B. M. Staw (Eds.), Research in Organizational Behavior. Greenwich, CT: JAI Press.

Van Dyne, L., Kamdar, D.A., & Joireman, J. (2008). In-role perceptions buffer the negative impact of low LMX on helping and enhance the positive impact of high LMX on voice. *Journal of Applied Psychology, 93(6),* 1195-1207.

Victor, B., Trevino, L., & Shapiro, D. (1993). Peer reporting of unethical behavior: The influence of justice expectations and social context factors. *Journal of Business Ethics, 12,* 256-263.

Vroom, V. H. (1964). *Work and motivation*. New York: Wiley

Wagner, D. G., & Berger, J. (1997). Gender and interpersonal task behaviors: Status expectations accounts. *Sociological Perspectives, 40*(1), 1–32.

Wales, K. (1996). Personal pronouns in present-day English. Cambridge, England: Cambridge University Press.

White, J. B. (2008). Fail or flourish? Cognitive appraisal moderates the effect of solo status on performance. *Personality and Social Psychology Bulletin, 34,* 1171-1184.

Williams, C. (1992). The glass escalator: Hidden advantages for men in the female professions. *Social Problems, 9,* 253–267.

Young, J.W. (1978). The subordinate's exposure of organizational vulnerability to the supervisor: Sex and organizational effects. Academy of Management Journal, 21, 113–122.