

The robustness of assessors' first impressions of medical trainees from ethnic majority and minority groups

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INTRODUCTION

Ethnicity and Medical School Underperformance



ethnicity-related underperformance ¹



particularly in workplace-based assessments (WBAs) ²



proposed reason: examiner subjectivity / bias



aim: understanding how a trainee's ethnic minority status can lead to biased WBAs

¹ Haq et al., 2005; Liddell & Koritsas, 2004; McManus et al., 1996; Stegers-Jager, Brommet, & Themmen, 2016; Stegers-Jager et al., 2012; Wass et al., 2003; Woolf, Potts, & McManus, 2011

² Esmail & Roberts, 2013; Woolf et al., 2008; Woolf et al., 2011; Stegers-Jager et al., 2016; Stegers-Jager et al., 2012

INTRODUCTION

Ethnicity and Medical School Underperformance

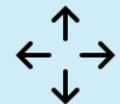


Focus on the role of First Impressions ¹

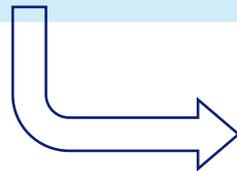
- Formed quickly
- Judgments based on little information
- Made with little conscious awareness



Study 1: Speed of forming first impressions



Study 2: Robustness of first impressions (this presentation)



Changing Performance Levels: Ascending / Descending

¹ Wood et al. (2018)

INTRODUCTION

Hypotheses

- 1** Ethnic minority trainees receive lower final ratings than ethnic majority trainees.
- 2** Ethnic minority trainees receive lower first impression ratings than ethnic majority trainees.
- 3** Assessors will particularly stick to their first impression ratings for ethnic minority trainees, more so than for ethnic majority trainees.
→ “anchoring”, i.e. their rating differences between first impression and final rating will be smaller

METHODS

Study Design

Phase 1: Video Production

- Experimental design
- Videos of the history-taking part of a consultation by medical trainees (actors)

Performance levels	Scripts	Ethnicity	Video Nr
Ascending (poor – good)	(A) cough	Majority	1
		Minority	2
	(B) stomach complaints	Majority	3
		Minority	4
Descending (good – poor)	(C) headache complaints	Majority	5
		Minority	6
	(D) tiredness	Majority	7
		Minority	8



METHODS

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Group 1

Group 2

METHODS

Study Design

Phase 2: Data Collection

- Participants: Specialists and residents, mostly from EMC, recruited by e-mail
- Procedure
 - 1) Informed consent
 - 2) Watching 4 videos
 - After 60s: first impression rating (scale 1-10)
 - After watching the remainder of the video: Final judgment rating (1-10)
 - 3) Demographic questions and potential covariates
 - 4) Debriefing
 - 5) Repeat consent

METHODS

Respondent Demographics

	Residents	Specialists	total
Male	18	17	35
Female	26	20	46
total	44	37	81

	Min	Max	Mean	SD
Age	27	65	38.75	11.14
Years of experience (function)	0*	30	7.05	8.15
Years of experience (evaluating trainees)	0*	28	7.83	7.09

* 1 respondent with 0 years of experience

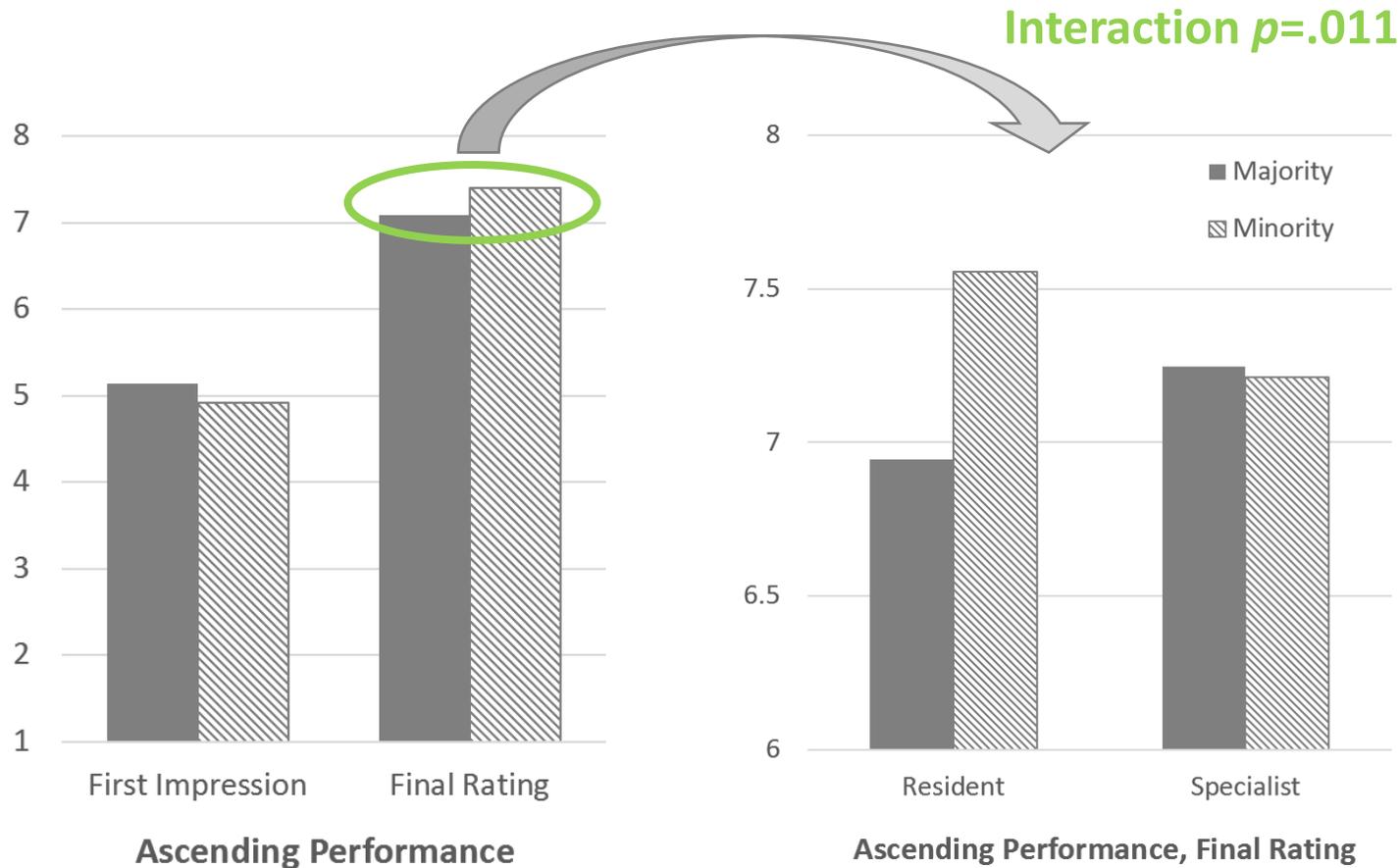
RESULTS

Final Rating



RESULTS

Final Rating, post hoc analysis

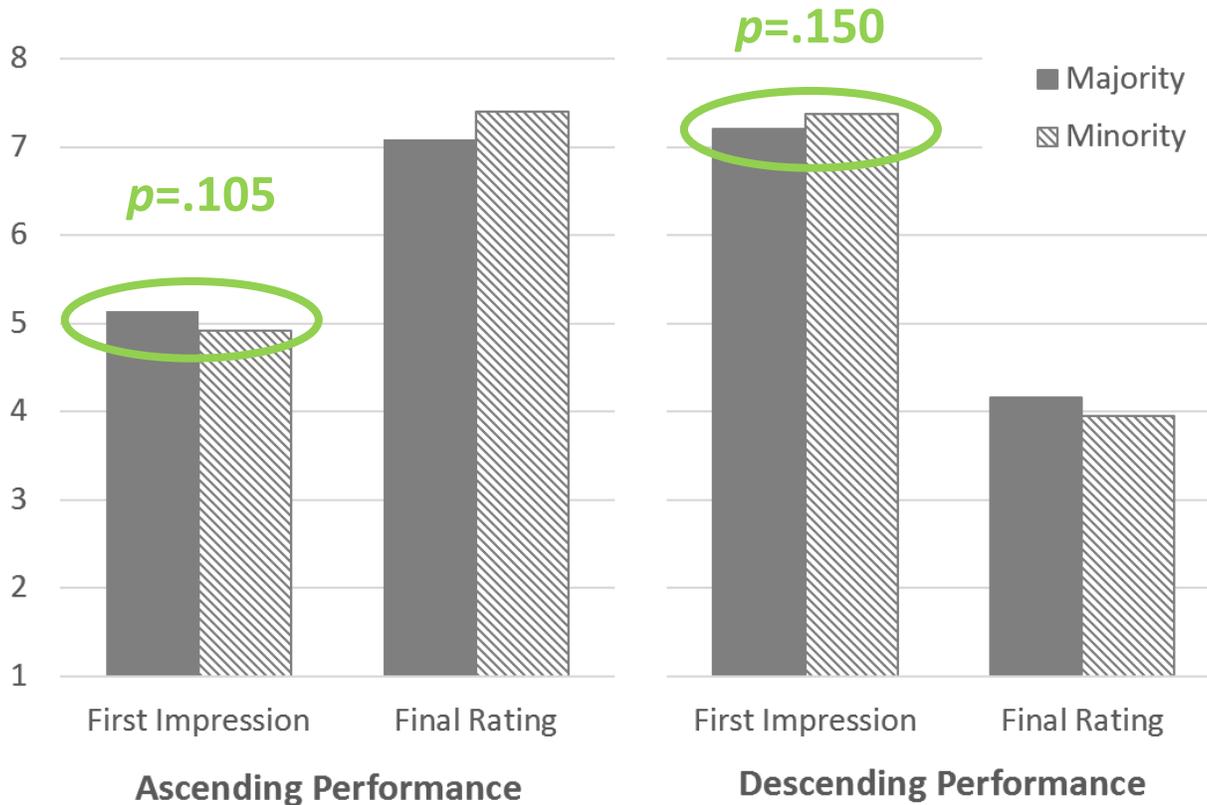


Summary Final Ratings

- Ascending Performance: Minority > Majority, but only when rated by Residents
- Descending Performance: No significant difference

RESULTS

First Impression Rating



Summary First Impression Ratings

- No significant difference Minority-Majority

Potential Explanation

- Positive result
- Self-regulation
- 'Override' impulses with system 2

RESULTS

Rating Differences



Summary Rating Changes

- Minority > Majority
- Descending > Ascending

Explanation

- Stronger cue → heightened alertness/attention to performance change (instead of anchor)
- “Tokenism”: disproportionate attention towards minority group

DISCUSSION

Practical Implications

Implications

- First impressions can be overcome
- Final ratings: Visual differences \neq ethnicity-related underperformance
- Minority students possibly more scrutinized
 - May be aware of this \rightarrow stressful \rightarrow descending performance

Suggestions

- Clear criteria
- Eliminating grades
- Focus shift from performing to learning

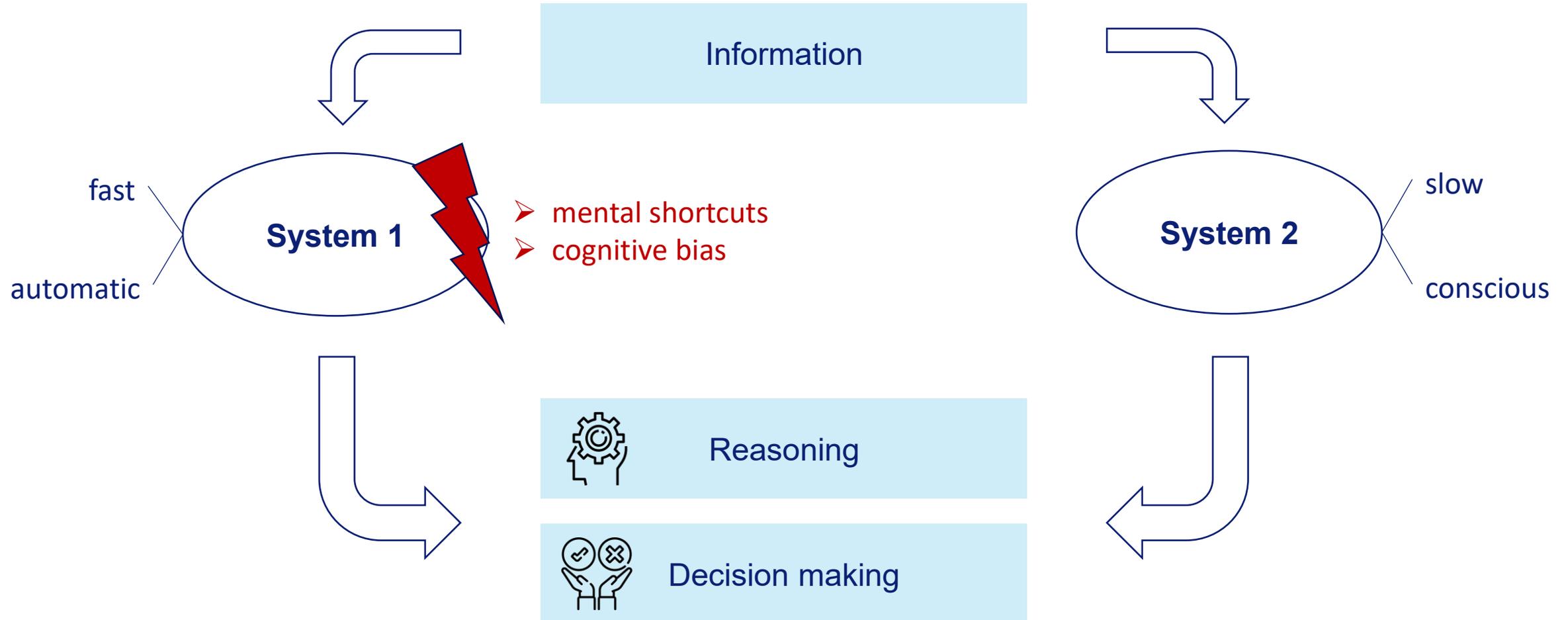
QUESTIONS?

Thank you for your attention!



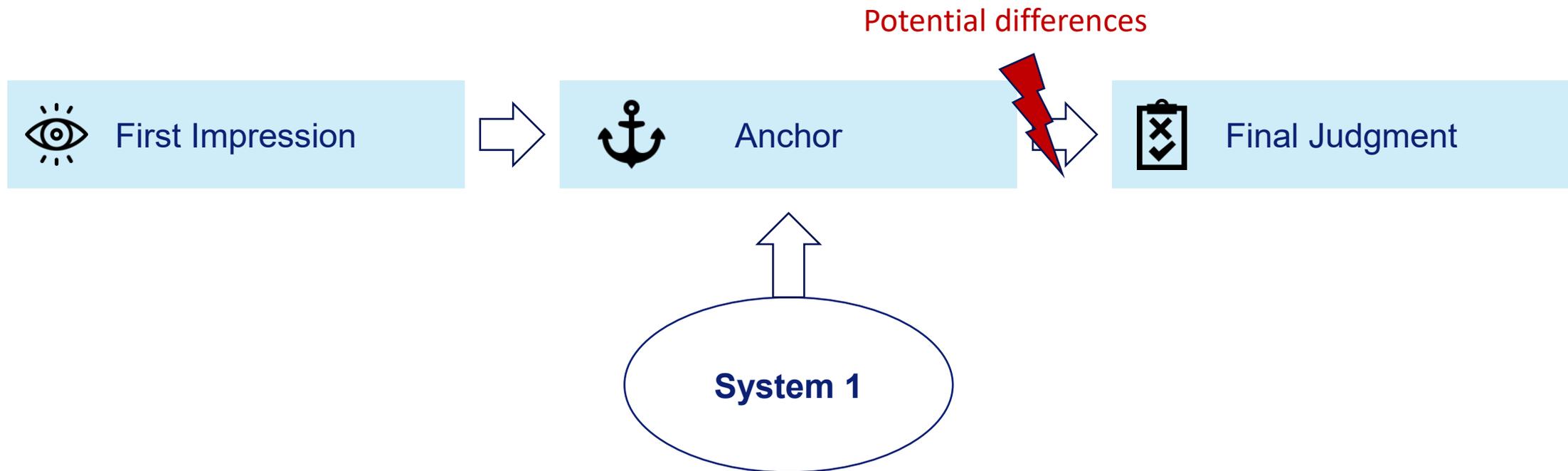
INTRODUCTION

Theoretical Foundation: Dual Process Theory



INTRODUCTION

Theoretical Foundation



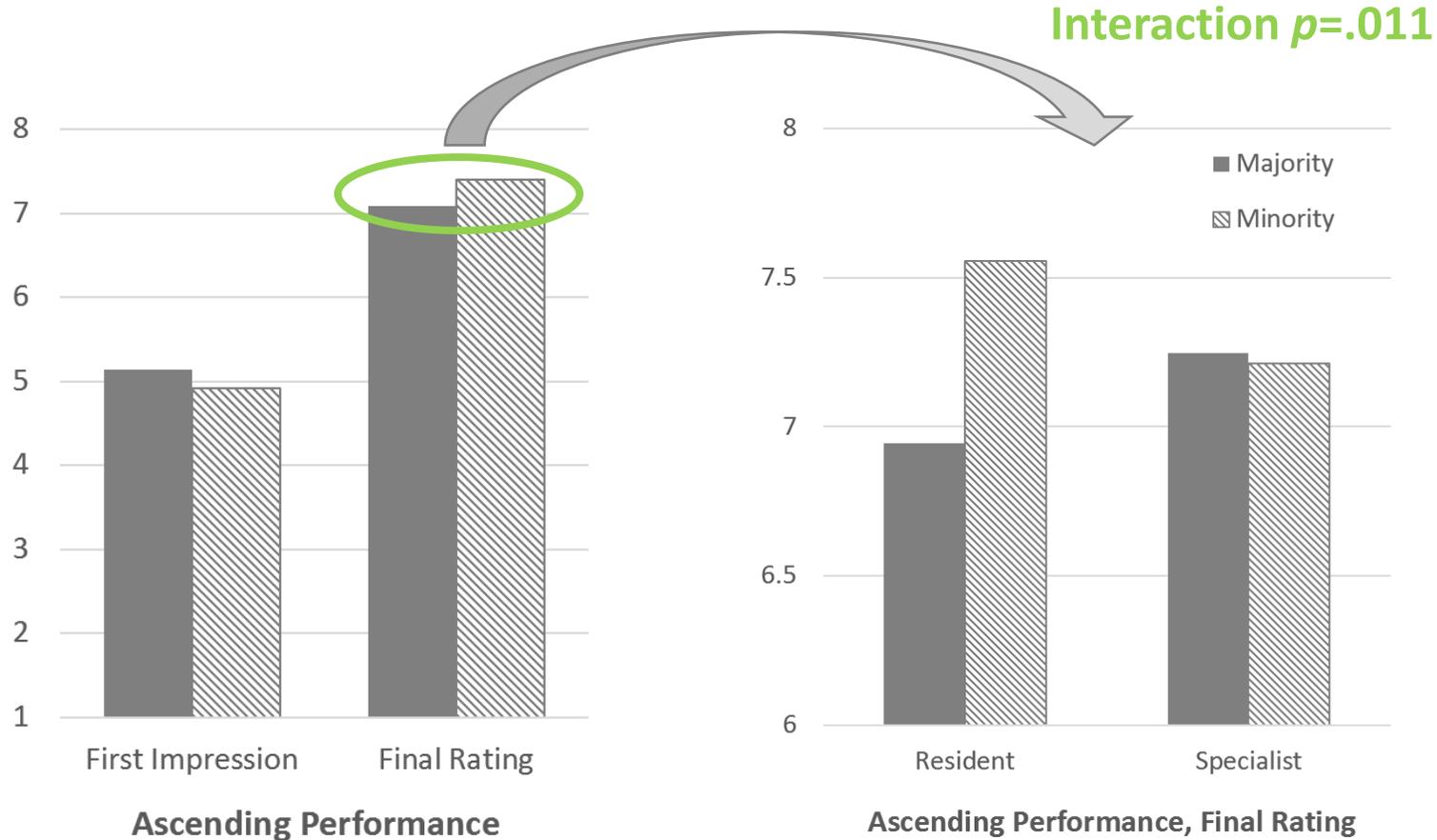
RESULTS

Final Rating



RESULTS

Final Rating, post hoc analysis



RESULTS

Final Rating



Summary Final Ratings

- Ascending Performance: Minority > Majority, but only when rated by Residents
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Potential Explanations

- Generational gap
- Social desirability bias by resident assessors
- Sign. negative correlation between age and the External Motivation to Respond Without Prejudice Scale (EMS)

RESULTS

Correlations

	Age	gender	Function	NFC	SDO	EMS	IMS	FI Asc Maj	FI Asc Min	FI Asc Min	FR Asc Min	Diff Asc Maj	Diff Asc Min	Conf Asc Maj	Conf Asc Min	FI Desc Maj	FI Desc Min	FR Desc Maj	FR Desc Min	Diff Desc Maj	Diff Desc Min	Co Desc Maj	Co Desc Min	
Age	-																							
Gender	-.104	--																						
Function	.772**	-.063	--																					
NFC	-.248*	-.003	-.216	--																				
SDO	.024	-.142	.081	.056	--																			
EMS	-.280*	.137	-.124	.234*	.119	--																		
IMS	-.112	.145	-.193	.001	-.435**	-.029	--																	
FI Asc Maj	-.257*	.116	-.180	.180	-.067	-.052	.097	--																
FI Asc Min	-.124	.083	-.085	.175	-.006	-.020	.112	.124	--															
FR Asc Maj	.106	.091	.113	-.008	.026	-.211	.061	.424**	-.071	--														
FR Asc Min	-.157	.088	-.166	.304**	.050	.119	.012	.110	.333**	.316**	--													
Diff Asc Maj	.347**	-.028	.267*	-.216	.089	-.068	-.084	-.664**	-.266*	.331**	.168	--												
Diff Asc Min	-.005	-.028	.010	.051	-.015	.140	-.046	-.057	-.787**	.239*	.242*	.338**	--											
Conf Asc Maj	.241*	-.150	.161	-.025	.166	-.084	-.239*	-.205	-.143	.037	.002	.242*	.081	--										
Conf Asc Min	.273*	-.135	.140	.049	.106	-.104	-.158	-.061	-.292**	.098	-.071	.163	.167	.627**	--									
FI Desc Maj	-.096	.059	-.069	.093	.018	-.041	.096	.182	.024	.101	.174	-.130	.092	-.093	.030	--								
FI Desc Min	-.340**	-.093	-.290**	.147	.093	.008	-.049	.167	.347**	.071	.261*	-.163	-.245*	-.012	-.020	.186	--							
FR Desc Maj	-.072	.040	-.125	.316**	.047	-.067	.064	.458**	.392**	.006	-.009	-.497**	-.431**	-.083	.043	.323**	.101	--						
FR Desc Min	-.150	.135	-.178	.248*	.152	-.037	.071	.258*	.619**	-.079	.091	-.355**	-.590**	.012	-.030	.174	.266*	.595**	--					
Diff Desc Maj	.021	-.009	.092	-.277*	-.039	.048	-.015	-.375**	-.393**	.048	.104	.444**	.495**	.036	-.028	.205	-.004	-.860**	-.521**	--				
Diff Desc Min	-.020	-.183	.033	-.175	-.106	.041	-.096	-.176	-.448**	.116	.040	.275*	.471**	-.019	.020	-.081	.237*	-.548**	-.873**	.523**	--			
Co Desc Maj	.194	-.203	.174	.072	.021	-.139	-.106	.070	-.089	.116	-.020	-.021	.111	.394**	.519**	.392**	-.077	.263*	.068	-.060	-.107	--		
Co Desc Min	.148	-.192	.070	.095	.030	-.035	-.190	.045	-.157	.062	-.039	-.010	.028	.531**	.542**	.144	-.046	.108	.001	-.034	-.025	.567**	--	