# Who Is Getting Ahead in Life? A Cross-National Investigation of Lay Beliefs about Advancement at Work and in Life מי מתקדם בחיים! מחקר רב-מדינתי לגבי ההתקדמות במקום העבודה ובחיים

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# Who Is Getting Ahead in Life? A Cross-National Investigation of Lay Beliefs about Advancement at Work and in Life

Who do you think is likely to get ahead in life and specifically at the workplace and at the job market? If choosing the single most important determinant of successfully getting ahead, would most people choose hard work or a less potentially fair factor, such as race or gender, or personal ties? The former possibility, reflected in the rose-colored ethos of the American Dream, is based on the notion that getting ahead (i.e., hierarchical advancement) is determined solely by hard work, expertise, and effort. The latter possibility implicates the crucial role of other factors in hierarchical advancement. Such factors include family wealth (Alvaredo, Atkinson, Piketty, & Saez, 2013), demographics (e.g., race and gender; Kraus, Rucker, & Richeson, 2017; Pratto, Stallworth, Sidanius, & Siers, 1997; Ridgeway, 2001), luck (Frank, 2016), facial and physical features (Antonakis & Dalgas, 2009; Judge & Cable, 2004; Todorov, Mandisodza, Goren, & Hall, 2005), coercion and dominance (Kakkar & Sivanathan, 2017; Maner, 2017), and political and social connections (Granovetter, 1973).

There is good reason to suggest that people's lay beliefs regarding the causes underlying hierarchical advancement do not track the above-mentioned grim reality. In this work, we suggest that people pervasively view *merit*—defined by Young as *IQ* + *effort* (Young, 1958)—as the central underlying cause of getting ahead. Meritocracy represents an ideal (Adams, 1965; Allen, 2011), adopted by societies that reward effort, ability, experience, and education—above factors such as race, gender, nationality and social connections—with upward mobility, higher income and higher rank, power, and prestige (e.g., Kunovich & Slomczynski, 2007).

We build our predictions on psychological theorizing and research, suggesting that people are fundamentally motivated to view the world as a just place, wherein everyone gets what they deserve and deserve what they get (Lerner, 1980). People also tend to legitimize the existing status quo in their social system (Jost & Banaji, 1994). The perception of the status quo in society as just

and legitimate is likely to motivate the lay belief in the centrality of merit (BCM), that is, that those who get ahead are the ones who deserve to, based on legitimate factors (Jost, Glaser, Kruglanski, & Sulloway, 2003).

In addition, cognitive processes may contribute to the BCM for getting ahead. For example, the fact that people's information-processing capacity is limited (Simon, 1972), combined with the nature of vast information about actual determinants of getting ahead (Nunn, 2012), makes integrating this information difficult for people.

BCM may affect employees' views of their organizations, such as acceptance of current diversity or resistance to organizational change (Proudfoot & Kay, 2014). In this work we posit that universally people believe in the centrality of merit for getting ahead, and that this belief negatively indirectly affects their support for redistribution policies—namely governmental interventions in regulating executives' salaries and in minimizing pay gaps—through perceived income-inequality fairness (i.e., the perceived fairness of pay gaps). We systematically examine our predictions at various levels of analysis: within-countries, between-countries, universally, and specifically in Israel.

#### **Overview of Studies**

Our research includes three studies. In Study 1, we analyzed large-scale data from nationally representative samples in 40 countries (n=55,238) using multi-level analyses to examine the universality of the BCM in people's beliefs about getting ahead in life. Additionally, we examined whether individuals' SES and countries' wealth levels predict differences in beliefs in merit's relative importance within and across countries. We also tested the hypothesized link between peoples' BCMs and support for governmental redistribution policies through perceived incomeinequality fairness. Next, to establish causality, and relate specifically to the workplace, in Study 2, we examined if the link between BCM and support for redistribution policies observed in Study 1 can be extended to a controlled realistic organizational setting, using a pre-registered experiment

(n=283). Finally, in Study 3, we examined the BCM of the Israeli public, and looked at data collected from a representative sample of the adult Israeli population.

# **Study 1: Universality of BCM Beliefs**

**Data.** We used the large-scale international Social Inequality IV survey data (ISSP Research Group, 2012), collected from representative samples in 40 countries (n=55,238,  $M_{country\ sample}$  size=1,380.95,  $SD_{country\ sample\ size}=554.77$ , CI=[880,3,305],  $M_{age}=46.65$ ,  $SD_{age}=17.16$ , 55% female), across diverse geographical regions and cultures.

Participants were asked to rate the actual importance of the following items for getting ahead in life: a wealthy family, well-educated parents, education, ambition, hard work, knowing the right people, political connections, race, religion, and gender (*1=not important at all*; *5=essential*).

We combined the ISSP survey data with GDP per capita normalized in USD on Purchasing Power Party exchange rates (PPP, The World Bank, World Development Indicators, 2009). See **Table 1** for country-level economic indexes.

Merit as a unique determinant of getting ahead. First, we performed principal axis factoring of the lay beliefs of the causes for getting ahead. As reported in **Table 2**, three factors (merit, social environment, and demographics) were identified, respectively. The emergence of merit as a separate factor confirms our assumption that merit is a unique determinant of hierarchical advancement.

The generalizability of BCM. Across the full sample of countries, respondents rated merit as highly important for mobility in absolute terms (M=3.93, SD=.21), as well as relative to the importance of the demographics and social environment factors (see **Table 1** and **Figure 1**). To quantify the relative importance of merit compared to other factors, we conducted a multi-level unconditional means analysis (Singer, 1998), in which individuals are nested in countries, with the relative importance of merit as the dependent variable, and countries as a random component. This analysis indicated strong evidence for the predicted universally held belief that merit is the most

important cause of getting ahead (Intercept=1.34, SE=.04, t=32.46, p<.001, see **Table 3**, Model 1).

Individual-level Effects. Using multi-level analysis, with objective SES (standardized composite score of years of schooling and household income) and group-mean centered subjective SES (measured using the 10-level MacArthur Ladder, 1=lowest, 10=highest; Adler & Ostrove, 1999) at the individual-level, we found that BCM is positively predicted by both objective and subjective SES (see Table 3, Model 2a and Figures 2a and 2b).

Country-level Effects. First, Inter-Class Correlation (ICC) analyses (see Tables 4 and 5) indicated that beliefs in merit, as well as in the other emergent factors, are widely shared within-countries but different between countries, justifying the investigation of country-wealth effects on these beliefs.

Thus, a mean country BCM score was calculated (i.e., merit's relative importance within a country; M=1.35, SD=.26, .87-2.12). Next, we conducted a multi-level analysis with the BCM score as the outcome variable and GDP as the country-level predictor, indicating that indeed merit beliefs are linked to the country-wealth (see **Table 3**, model 2b). That is, the greater the country-wealth, the greater the BCM for getting ahead.

Cross-national indirect link between BCM and redistribution preferences. We investigated the indirect link between BCM for getting ahead in the country and the perceived fairness of income inequality, as well as on a downstream consequence—redistribution preferences within the respective societies. Using the MLmed multi-level mediation macro<sup>1</sup>, we found that perceived inequality fairness in a country statistically accounted for part of the shared variance between the relative importance of merit and support for governmental redistribution, -.27, 95% CI(-.54 to -.05) [a=.49, ta(53,832)=2.41, p=.021, 95% CI (.08 to .90); b=-.56,

<sup>&</sup>lt;sup>1</sup> The MLmed multi-level mediation macro for SPSS by Rockwood & Hayes; Rockwood NJ Hayes AF (2017, May) MLmed: An SPSS macro for multi-level mediation and conditional process analysis. Poster presented at the annual meeting of the Association of Psychological Science (APS), Boston, MA.

 $t_b(53,832)$ =-5.14, p<.001, 95% CI (-.77 to -.34); c'=-.40,  $t_{c'}(53,832)$ =-2.72, p=.010, 95% CI (-.70 to -.10)], see **Figure 3a**.

# Study 2: Causal Link between BCM and Support for Redistribution Polices

In preregistered Study 2, we employed an experimental design in a specific organizational context to provide causal evidence for the influence of BCM on fairness judgements and governmental redistribution preferences. To this end, we manipulated the determinant of getting ahead (merit-based vs. connections-based) within a public company. In this organizational context, hierarchical advancement is strongly associated with perception of income-inequality fairness. Additionally, pay differences and equality between those at the top of the hierarchy and those below them are especially salient and potentially aversive (Bendetti & Chen, 2018; Hauser & Norton, 2017).

**Method.** Sample included 283 undergraduate students ( $M_{age}$ =23.17,  $SD_{age}$ =3.20, 54% women) that participated in exchange for credit points or for 20 NIS (approximately \$4).

We randomly assigned participants to one of two conditions: a merit-based promotions condition (n=140) and a connections-based promotions condition (n=143). Participants watched an engaging video simulating a visit to a company (see **Figure 4** for an example screenshot). Next, participants had simulated meetings with four employees of the company, who discussed their merit-based (connections-based) qualifications for the job, the reasons they were hired, and their anticipated future in the company. We used visual aids to enhance the level of realism and increase participants' immersive experience, thus improving external validity (Aguinis & Bradley, 2014).

**Income-inequality fairness.** Participants in the merit-based condition rated the income-inequality (i.e., pay gaps) in the company as significantly fairer (M=4.05, SD=1.33) than participants in the connections-based condition (M=3.39, SD=1.43), t(280.30)=-4.02, p<.001, d=.48.

**Mediation analysis.** We conducted a mediation test using the PROCESS macro based on 5,000 bootstrapped samples (Preacher & Hayes, 2008; see **Figure 3b**). This analysis supported our prediction regarding the indirect downstream effect of merit-based (vs. connections-based) promotions in a particular company on governmental redistribution policies through incomeinequality fairness judgments [a=.66, t<sub>a</sub>(283)=4.01, p<.001, 95% CI (.37 to .98); b=-.19, t<sub>b</sub>(283)=-2.77, p=.006, 95% CI (-.32 to -.05); c=.11, t<sub>c</sub>(283)=.60, p=.552, 95% CI (-.26 to .49), an indirect effect of -.12, 95% CI(-.26 to -0.02)].

### Study 3: BCM of the Israeli Public

To examine the BCM of the Israeli public we looked at data from the ISSP survey, collected from a representative sample of the adult Israeli population, between the years 2009-2010 (n=1,193,  $M_{age}=43.45$ ,  $SD_{age}=17.53$ , 53% female). Results show that merit was perceived as the most important cause of getting ahead (M=3.95, SD=.70), significantly more important than the causes of social environment (M=3.45, SD=.88) and demographics (M=2.44, SD=1.02, F(1,1181)=1513.02, p<.001). Finally, regression analysis with relative importance of merit as dependent variable, and with objective and subjective SES, gender, and age as the predictors, indicates that the socio-economic status and gender significantly predict the relative importance of merit as a cause of upward mobility (F(4,1162)=9.39, p<.001,  $R^2=.03$ ; see **Table 6** and **Figure 5**).

#### **Discussion**

This study examined the centrality of the merit factor in people's lay beliefs about the causes underlying upward mobility. Using a cross-national large sample, a controlled experiment, and an Israeli representative sample, we tested whether the centrality of merit is a shared cross-cultural belief, and how this belief affects support for redistribution policies.

In line with our predictions, we find that across a diverse set of countries, individuals share similar beliefs regarding the absolute and relative importance of merit as a cause of upward mobility in their society; and that there is a causal link between merit beliefs and support for redistribution polices, namely regulation of executives' salaries and acts to minimize pay gaps in the job market. This causal link is mediated by the perceived fairness of pay gaps. Consistent with these findings, the Israeli public sees merit as the most important cause of getting ahead.

Our findings have important implications at various levels of analysis: At the societal level, it is important that the link between merit and compensation of industry leaders be maintained and transparent. For example, governments that regulate salaries of senior executives in public organizations and enforce acts that will obstruct political fraud and tax evasion, may garner higher support from their people.

At the organizational level, those organizations that base their compensation and promotion policies on merit, and make these policies transparent, may benefit from more satisfied, hardworking and dedicated employees. Applying such policies to those employees lower in the organizational or societal hierarchy, may be most effective for the satisfaction and for the performance of those employees, as they are the ones likely to see merit as being less central for getting ahead than those higher in the hierarchy.

In sum, this research may provide the tools to enhance employee satisfaction and motivation and improve relationships at the workplace.

**Table 1.** Country-level aggregated beliefs in merit's relative importance and objective macro-economic GDP index

Country	Sample Size	Merit Factor Mean (SD)	Social Environment Factor Mean (SD)	Demographic Factor Mean (SD)	Relative Importance of Merit Mean (SD)	GDP Per Capita (PPP) normalized (USD)
AR-Argentina	1,133	3.67 (.68)	2.85 (.74)	1.91 (0.85)	1.29 (0.83)	16,656.52
AU-Australia	1,525	4.18 (.57)	2.83 (.73)	1.79 (0.81)	1.87 (0.80)	40,256.05
AT-Austria	1,019	3.91 (.68)	3.25 (.74)	2.32 (0.86)	1.13 (0.85)	40,704.41
BE-Belgium	1,115	3.74 (.58)	2.96 (.63)	2.13 (0.75)	1.19 (0.67)	38,047.69
BG-Bulgaria	1,000	4.23 (.70)	3.41 (.84)	2.15 (1.05)	1.42 (1.03)	14,133.07
CL-Chile	1,505	3.79 (.69)	3.06 (.76)	1.93 (0.95)	1.30 (0.95)	16,226.15
CN-China	3,010	4.18 (.61)	3.90 (.66)	2.61 (0.94)	0.93 (0.72)	83,74.43
TW-Taiwan	2,026	4.04 (.59)	3.12 (.71)	1.94 (0.75)	1.51 (0.69)	NA
HR-Croatia	1,201	4.12 (.66)	3.41 (.80)	2.06 (0.94)	1.38 (0.93)	19,470.69
CY-Cyprus	1,000	4.18 (.57)	3.06 (.74)	2.03 (0.82)	1.63 (0.73)	33,922.88
CZ-Czech Republic	1,205	3.80 (.75)	2.89 (.83)	2.20 (0.89)	1.25 (0.91)	27,567.20
DK-Denmark	1,518	3.62 (.63)	2.58 (.63)	1.91 (0.75)	1.37 (0.73)	40,195.02
EE-Estonia	1,005	3.77 (.60)	3.10 (.67)	1.82 (0.73)	1.31 (0.75)	20,523.35
FI-Finland	880	3.57 (.65)	2.39 (.70)	1.88 (0.69)	1.43 (0.78)	37,868.72
FR-France	2,817	3.75 (.64)	2.62 (.76)	1.83 (0.84)	1.52 (0.83)	34,767.15
DE-Germany	1,395	4.00 (.55)	3.14 (.67)	2.13 (0.85)	1.36 (0.77)	37,080.31
HU-Hungary	1,010	3.88 (.71)	3.27 (.89)	2.44 (0.90)	1.02 (0.89)	20,573.38
IS-Iceland	947	4.21 (.49)	2.82 (.64)	1.99 (0.73)	1.80 (0.73)	40,962.40
IL-Israel	1,193	3.95 (.70)	3.28 (.71)	2.45 (1.02)	1.09 (.90)	27,578.43
IT-Italy	1,084	3.87 (.67)	3.29 (.79)	2.10 (.87)	1.15 (.94)	34,549.28
JP-Japan	1,296	3.49 (.70)	2.52 (.76)	1.71 (.78)	1.36 (.82)	33,099.27
KR-South Korea	1,599	3.94 (.60)	3.39 (.63)	2.20 (.75)	1.15 (.73)	28,392.76
LV-Latvia	1,069	3.91 (.63)	3.20 (.76)	1.79 (.69)	1.40 (.79)	16,889.12
NZ-New Zealand	935	4.18 (.56)	2.50 (.69)	1.64 (.76)	2.11 (.78)	30,699.30
NO-Norway	1,456	3.96 (.55)	2.65 (.67)	2.18 (.73)	1.53 (.77)	55,459.99
PH-Philippines	1,200	4.29 (.58)	3.15 (.76)	3.14 (1.04)	1.15 (.87)	5,147.80
PL-Poland	1,263	4.20 (.50)	3.45 (.75)	1.99 (.94)	1.46 (.87)	19,266.13
PT-Portugal	1,000	4.00 (.66)	3.03 (.81)	2.05 (.86)	1.45 (.85)	26,496.18
RU-Russia	1,603	3.78 (.76)	3.20 (.86)	1.94 (.86)	1.18 (.94)	19,386.58
SK-Slovak Republic	1,159	3.99 (.69)	3.35 (.80)	2.27 (.93)	1.19 (.88)	23,082.79
SI-Slovenia	1,065	3.91 (.72)	3.26 (.80)	2.19 (.85)	1.18 (.85)	27,504.07
ZA-South Africa	3,305	4.24 (.59)	3.40 (.80)	3.36 (1.05)	0.87 (.92)	11,462.62
ES-Spain	1,215	3.76 (.66)	3.14 (.74)	2.01 (.82)	1.17 (.82)	32,423.60
SE-Sweden	1,137	3.89 (.55)	2.67 (.70)	1.99 (.85)	1.56 (.76)	39,693.33
CH-Switzerland	1,229	3.81 (.57)	2.80 (.62)	2.10 (.74)	1.36 (.75)	51,632.65
TR-Turkey	1,569	3.83 (.63)	3.29 (.73)	2.02 (.99)	1.16 (.87)	14,794.51

SDs are shown in parentheses. NA indicates data not available.

Table 2. Dimensionality of lay beliefs about the determinants of getting ahead

	Factor				
	Social				
	Environment	Demographic	Merit		
How important is coming from a wealthy family?	.70	.17	.03		
How important is having well-educated parents?	.60	.14	.17		
How important is knowing the right people?	.50	.14	.18		
How important is having political connections?	.55	.22	.05		
How important is a person's race?	.23	.72	.03		
How important is a person's religion?	.12	.73	.02		
How important is being born a man or a woman?	.20	.67	.02		
How important is having ambition?	.14	.03	.64		
How important is hard work?	.03	.00	.66		
How important is having a good education yourself?	.36	.04	.41		

Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization. n=55,238.

**Table 3.** Multi-level regression analyses of beliefs in merit's relative importance (BCM) for getting ahead

	Model 1 Unconditional	Model 2a Individual Level	Model 2b Country Level	Model 3 Full Model
Independent Variable†				
Constant	1.344*** (.041)	1.405*** (.063)	1.326*** (.036)	1.392*** (.058)
Fixed Effects				
Level 1				
Objective SES		.069*** (.012)		.070*** (.013)
Subjective SES		.036*** (.007)		.036*** (.007)
Gender		044*** (.013)		046*** (.013)
Age		001 (.000)		001 (.001)
Level 2				
GDP per Capita (PPP)			.143** (.038)	.096** (.031)
Random Effects			,	,
Residual $(\rho^2)^{\ddagger}$	0.695 (.004)	.675 (.004)	.704 (.004)	.684 (.004)
Adjusted $R^2$ (level 1)		.03		.02
Intercept $(\tau_{00})^{\S}$	0.068 (.016)	.153 (.036)	.050 (.012)	.123 (.031)
Adjusted $R^2$ (level 2)		, ,	.24	81¶
N (level 1)	55,238	55,238	55,238	55,238
N (level 2)	40	40	40	40

P values: \*\*p<.01, \*\*\*p<.001. SEs are shown in parentheses.

<sup>†</sup> Objective SES and GDP per Capita (PPP) are in standardized values. Subjective SES is group mean centered. Three decimal places are provided because of small but significant values.

<sup>‡</sup> Within-country variance.

<sup>§</sup> Between-country variance.

<sup>¶</sup> In some cases, adding Level 1 predictors decreases the residual but does not affect the between-group variance, resulting in an increase in unexplained level 2 variance (LaHuis, Hartman, Hakoyama, & Clark, 2014). A model that excludes the variable of age, and that is less suspect for Level 1 overfitting, has a Level 2 Adjusted  $R^2$  of .09 (Objective SES, b=.077, p<.001; Subjective SES, b=.033, p<.001; Gender, b=-.048, p<.01; GDP per Capita, b=.120, p<.01).

**Table 4.** Inter-class correlation (ICC) analysis of beliefs about the determinants of getting ahead.

						df			
Factor	MSB	MSW	k	F	P	variable	df error	<i>ICC(1)</i>	<i>ICC(2)</i>
Merit	64.30	.41	1,374.00	158.78	.000	39.00	54,931.00	.10	.99
Social Environment	167.84	.55	1,373.00	304.06	.000	39.00	54,865.00	.18	1.00
Demographics	226.48	.76	1,358.00	298.74	.000	39.00	54,261.00	.18	1.00

Table 5.  $r_{wg(j)}$  values for participating countries.

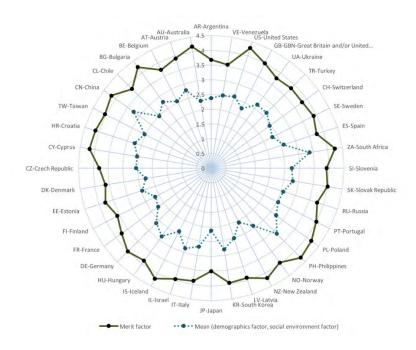
Country	$r_{wg(j)}$
AR-Argentina	0.90
AU-Australia	0.90
AT-Austria	0.87
BE-Belgium	0.91
BG-Bulgaria	0.74
CL-Chile	0.88
CN-China	0.85
TW-Taiwan	0.86
HR-Croatia	0.82
CY-Cyprus	0.85
CZ-Czech Republic	0.81
DK-Denmark	0.91
EE-Estonia	0.87
FI-Finland	0.91
FR-France	0.87
DE-Germany	0.90
HU-Hungary	0.77
IS-Iceland	0.92
IL-Israel	0.82
IT-Italy	0.83
JP-Japan	0.88
KR-South Korea	0.89
LV-Latvia	0.87
NZ-New Zealand	0.91
NO-Norway	0.91
PH-Philippines	0.86
PL-Poland	0.82
PT-Portugal	0.84
RU-Russia	0.81
SK-Slovak Republic	0.81
SI-Slovenia	0.82
ZA-South Africa	0.81
ES-Spain	0.88
SE-Sweden	0.90
CH-Switzerland	0.93
TR-Turkey	0.86
UA-Ukraine	0.77
GB-Great Britain	0.89
US-United States	0.89
VE-Venezuela	0.83

M = .86, SD = .05, .74-.93. Note:  $r_{wg(j)}$  denotes the extent to which individuals in each country agree on the importance of the factors underlying upward mobility. Recommended cutoff point of .70 for mean value across countries (Gelfand et al., 2011).

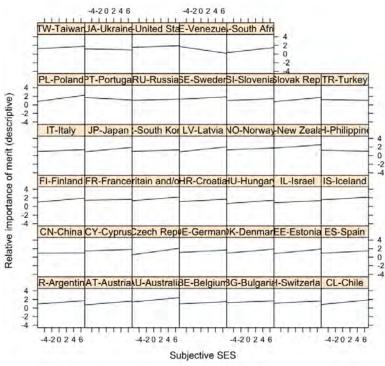
**Table 6.** Regression model for prediction of beliefs of the Israeli public in relative importance of merit for getting ahead.

	ß	t	р
(Constant)		5.10	.000
Objective Socio-economic	. 13	4.39	.000
Status			
Subjective Socio-economic	.06	1.98	.048
Status			
Gender	.09	3.08	.002
Age	01	43	.670

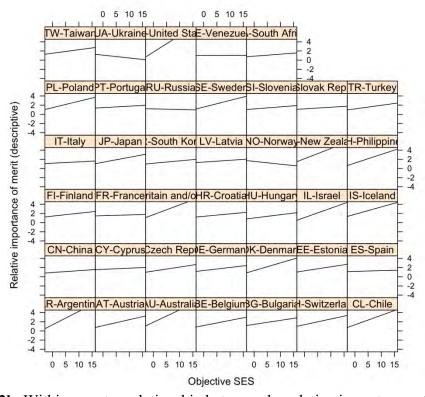
 $R^2$ =.03, F(4,1162)=9.39, p<.001



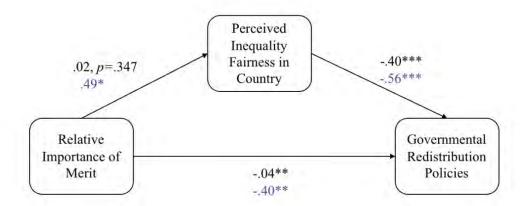
**Figure 1.** Cross-country beliefs of causes for upward mobility (hierarchical advancement).



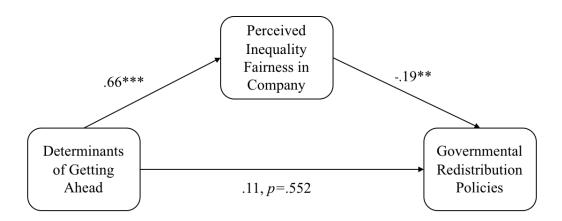
**Figure 2a.** Within-country relationship between the relative importance of merit as a cause of upward mobility and subjective socio-economic status.



**Figure 2b.** Within-country relationship between the relative importance of merit as a cause of upward mobility and objective socio-economic status.



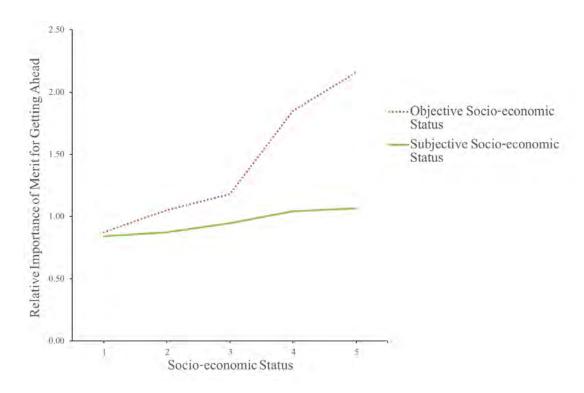
**Figure 3a.** Multi-level indirect effects of merit's relative importance in redistribution-policy preferences through perceived inequality fairness in country (Study 1). Top estimates are the within-country effects; bottom estimates are the between-country effects. \*p<.05; \*\*p<.01; \*\*\*p<.001. n=53,832.



**Figure 3b.** Indirect effect of the determinant of getting ahead (0=connections-based, 1=merit-based) on governmental redistribution-policy preferences through perceived inequality fairness in company (Study 2). \*\*p<.01; \*\*\*p<.001. n=283



**Figure 4.** Snapshot of image from experimental simulation of the entrance to the offices of the fictitious organization (Study 2).



**Figure 5.** Link between objective and subjective socio-economic status and the relative belief in merit as a cause of getting ahead (Israeli public, clustered to five socio-economic status percentiles).

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