Online Appendix

Who Gives Back? Evidence from India on Successful Entrepreneurial Exit and Involvement in Philanthropy

APPENDIX A

Additional Analysis with Alternative Measure for Social Orientation

We conducted additional analysis with an alternative measure of industry effects which captures whether the offering of each venture in our sample is *socially driven* or not. For coding *socially driven* ventures, text information related to the focal firm's self-description of its product / service offerings - during the two-year window leading up to the year of exit was extracted using the 'Wayback Machine' search engine (https://web.archive.org/) on a focal venture's website. This information was available for 196 ventures (roughly 62% of our original sample). Using text analysis in Python, the number of instances of socially oriented text in each description was coded by looking for the following eight words and their spelling and hyphenation variations: *'care', 'grassroots' 'needs', 'poor', 'poverty', 'underdeveloped', 'underprivileged'* and '*underserved*'. We created a measure of *socially driven* ventures based on the count of these key words. The correlation between this measure of *socially driven* and *caring industry* is moderate (ρ=0.31, *p*-value=0.00). We constructed a dummy variable to reflect low, medium or high social orientation indicated by *socially driven*=1, 2 or 3 respectively. Table A1 reports the results from our model using this dummy as a control with *socially driven*=1 as the omitted category.

Table A1. LOGIT Analyses Results: Drivers of Involvement in Philanthropy with Alternative Measure for Social Orientation

	Panel A		**Panel B**	
	Model 1 (Controls)	**Model 2** (Full model)	**Model 3** (caste X elite edu)	**Model 4** (caste X foreign edu)
Socially driven=2	0.361 (0.43)	0.454 (0.46)	0.465 (0.45)	0.454 (0.46)
Socially driven=3	0.357 (0.60)	0.220 (0.57)	0.238 (0.57)	0.223 (0.57)
IPO	-0.508 (0.38)	-0.454 (0.38)	-0.458 (0.38)	-0.454 (0.38)
Other activity	0.604** (0.13)	0.602** (0.13)	0.591** (0.13)	0.601** (0.13)
Year of exit	-0.021 (0.09)	-0.003 (0.09)	-0.004 (0.09)	-0.002 (0.09)
South region	-0.434 (0.41)	-0.554 (0.40)	-0.538 (0.40)	-0.555 (0.40)
East region	-0.726 (1.04)	0.015 (1.12)	0.143 (1.10)	0.031 (1.10)
West region	-0.001 (0.53)	-0.115 (0.59)	-0.107 (0.58)	-0.113 (0.59)
Non dharmic religions	0.753 (0.72)	0.416 (0.79)	0.510 (0.79)	0.405 (0.80)
Exit valuation (log)	0.221 (0.14)	0.209 (0.14)	0.205 (0.14)	0.209 (0.14)
Founder age at exit	0.049** (0.01)	0.053** (0.01)	0.052** (0.01)	0.053** (0.01)
Gender		-1.004† (0.54)	-0.976† (0.54)	-1.005† (0.54)
Caste rank		-0.641* (0.25)	-0.537* (0.27)	-0.654* (0.27)
Foreign education		0.699† (0.38)	0.713† (0.38)	0.518 (2.04)
Elite Indian education		0.984* (0.49)	3.624 (3.57)	0.986* (0.49)
Caste Rank X Elite Indian education			-0.757 (0.99)	
Caste Rank X Foreign education				0.056 (0.64)
Number of observations	415	415	415	415
Log likelihood	-167.0	-159.7	-159.2	-159.7
Pseudo R^2	0.135	0.172	0.175	0.173

Notes: (1) *Socially driven*=1, 2 or 3 reflect low, medium or high social orientation respectively.

(2) Table reports LOGIT analyses coefficients with *socially driven*=1 as the omitted category.

(3) & (4) Robust standard errors are clustered around venture id in parentheses. $^{\dagger}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$.

APPENDIX B

Construction of Entrepreneurs' Regional and Religious Backgrounds

Measuring entrepreneurs' regional backgrounds: We inferred the regional background from the last name of each entrepreneur using the following procedures outlined by Vissa (2011). First, as in Vissa (2011), using the last name of the focal entrepreneur we probabilistically inferred her regional Indian language. To illustrate, the 29,999 occurrences of the last name 'Gupta' that could be assigned a valid regional language category in the matrimonial database mapped to the following regional Indian languages (relative frequencies in parentheses): *Bengali* (8%), *Gujarati* (0.5%), *Hindi* (79%), *Marathi* (0.5%), *Marwari* (2.5%), *Pahari* (1.5%), *Punjabi* (5%) and *Telugu* (3%). Using the regional language probabilities we classified each last name as belonging to one of the four broad geographic regions in India: north, south, east and west. We first grouped the 14 languages in the sample into four geographic regions. Specifically, *Kannada, Malyalam, Tamil* and *Telugu* were grouped in the south region; *Hindi, Punjabi, Pahari* and *Marwari* were grouped in the north region; *Gujarati, Marathi* and *Sindhi* were grouped in the west region; and *Oriya, Bengali* and *Mizo* were grouped in the east region. Then we summed the probabilities of the constituent languages for each region by each last name in the sample.

Thus the 29,766 occurrences of the last name 'Gupta' that could be assigned to a valid regional language in the matrimonial database are mapped to the following geographic categories (relative frequencies in parentheses): north (88%), south (3%), east (8%) and west (1%).We interpret these relative frequencies to mean that a person whose last name is "Gupta" is likely from the northern region with 88% probability, the eastern region with 8% probability, the southern region with 3% probability and the western region with 1% probability. We then transformed this probabilistic measure of region into a crisp 0 or 1 by following a 'maximum probability along with a threshold criterion' rule. Specifically, we assigned a last name to a specific region only if the highest probability was greater than 50%. Thus, this rule converts the region vector for 'Gupta' from the probabilistic (0.88; 0.03; 0.08; 0.01) to a crisp (1; 0; 0; 0), since we assign 'Gupta' to the northern Indian region with certainty because of the 88% probability of belonging to that region. Consequently,

a founder's region is a categorical variable indicating the founder's region as *north region* (omitted category)*, south region, east region* or *west region.*

Measuring entrepreneurs' religious backgrounds: Using the same methodology as for *region*, the last name of each entrepreneur was used to infer her religion. First, we grouped religions into *nondharmic* and *dharmic* religions. By *dharmic* religion we refer to religious faiths that are closely related to each other because they originated in the Indian subcontinent; these include Hinduism, Buddhism, Jainism and Sikhism. *Nondharmic* religions include Christianity, Islam, Judaism and Zoroastrianism. Continuing with the previous example the 29,723 occurrences of the last name 'Gupta' that could be assigned to a valid religion in the matrimonial database mapped to the following religion categories (relative frequencies in parentheses): *dharmic* religions (99.5%) and *nondharmic* religions (0.5%). We then transformed this probabilistic measure of religion into a crisp 0 or 1 by following a 'maximum probability along with a threshold criterion' rule. Specifically, we assigned a last name to the *nondharmic* religion category only if the highest probability was greater than 30%. Thus, this rule transforms the religion vector for 'Gupta' from the probabilistic (0.995; 0.005) to a crisp (1; 0) since we assign 'Gupta' to *dharmic* religion with certainty because of the 99.5% probability of belonging to a *dharmic* religion. We coded a founder's religion as a categorical variable with *nondharmic* set to '1' for entrepreneurs assigned to a *nondharmic* religion and '0' otherwise.

APPENDIX C

Partial Bayesian Approach

We computed Bayesianized *p*-values to assess the probability that our conceptual model is accurate given our sample – using the steps outlined by Harvey (2017). In this approach, the *p*-value of the hypothesized effect from the main regression is combined with the prior odds of observing the effect to compute the minimum Bayes factor (MBF) for the effect. The MBF helps revise the posterior odds in order to calculate the Bayesianized *p*-values or the probability that the null effect is true for our data, given *ex ante* beliefs on the plausibility of the theorized causal relationship. Table C1 reports the Bayesianized *p*-values in our sample.

Table C1. Converting Classical *p*-values into Bayesianized *p*-values on the Likelihood of the Null Hypothesis Being True[ab]

Effect of theoretical variables on philanthropy	**(1) t-stat**	**(2) *p*-value**	**(3) MBF**	**(4) Prior odds ratio Null effect: Alternative effect**	**(5) Bayesianized *p*-values using MBF**	**(6) Updated probability of null effect**
Caste	-1.80	0.070	0.194	4**:**1 [80% null**:**20% alt]	0.437	80% → 43.7%
Gender	-1.61	0.108	0.274	4**:**1 [80% null**:**20% alt]	0.523	80% → 52.3%
Elite Indian Education	1.11	0.268	0.540	4**:**1 [80% null**:**20% alt]	0.684	80% → 68.4%
Foreign Education	2.35	0.019	0.063	4**:**1 [80% null**:**20% alt]	0.202	80% → 20.2%

[a] Adapted from Table IV on p.34 reported in Harvey (2017)

[b] *Notes:*

(1) and (2) t-stats and *p*-values derived from Model 2 in Table 2.

(3) Minimum Bayes Factor MBF= [exp-(t-stat^2/2)]

(4) Prior odds of 4:1 means the prior probability of the theoretical effect being true is 20% - which quantifies our subjective prior belief that our theoretical model "perhaps could be true". This implies that our prior belief on our null hypotheses (of no effect) being true is 80% (i.e. 1 minus 0.2). It is important to note that a crucial driver of results is this subjective (and potentially arbitrary) step of translating our qualitative belief "perhaps could be true" into a quantitative 20% probability.

(5) Bayesianized *p*-values= MBF*Prior odds/(1+ MBF*Prior odds). Bayesianized *p*-values using MBF is our updated belief, given our data, on the null hypotheses being true.

(6) Starting with a prior belief of 80% that the null effect is true, given our data, we update our beliefs about the null effect. Thus, given our data, we update our belief in the null hypothesis [caste has **no effect** on philanthropy] from 80% to 43.7%. Likewise, we update our belief in the null hypothesis [foreign education has **no effect** on philanthropy] from 80% to 20.2%.

Notice that the Bayesianized p-values (43.7% and 20.2% respectively for caste and foreign education) are higher than their classical p-values (7% and 1.9% respectively for caste and foreign education). But, the difference in interpretation is crucial. We can make direct statements about the viability of the null hypothesis under this partial Bayesian framework. We cannot do so under the NHST framework because the classical *p*-value does not tell us the probability that the null hypothesis is true.

APPENDIX D

Abductive Analyses of Qualitative Interview Data

We conducted semi-structured interviews of about one to two hours in duration with a convenience sample of fifteen post-exit entrepreneurs, spanning diverse personal backgrounds, of whom eight were involved in philanthropy[1]. Table D1 provides sample details. From these qualitative interviews, we grouped the raw textual data related to time and resource availability pre- and post-exit in the full sample to abductively generalize from the patterns across subjects. Our data suggested that post-exit represented a substantively different personal situation when compared to the pre-exit venture building phase of the entrepreneurial journey. Table D2 provides illustrative quotes from our interview data and our theoretical interpretation.

Table D1. Sample Characteristics of Qualitative Study

Founder No.	Founder personal background	For-profit venture details	Primary Post-Exit Activity	Involvement in Philanthropy
C01	Female; higher caste; Non-elite Indian education; No foreign education; ~53 years old at exit	Co-founder of e-commerce venture; exit through trade sale	CEO of new for-profit venture	No
C02	Male; higher caste; Elite Indian education; No foreign education; ~54 years old at exit	Co-founder of chemicals manufacturing venture; exit through IPO	CEO of IPO-ed firm	No
C03	Male; higher caste; Non-elite Indian education; No foreign education; ~43 years old at exit	Co-founder of tech venture; exit through trade sale	CEO of new for-profit venture	No
C04	Male; higher caste; Elite Indian education; No foreign education; ~39 years old at exit	Co-founder of analytics venture; exit through trade sale	Professional investor	No
C05	Male; higher caste; Elite Indian education; No foreign education; ~42 years old at exit	Co-founder of analytics venture; exit through trade sale	CEO of new for-profit venture	No
C06	Male; lower caste; Non-elite Indian education; No foreign education; ~45 years old at exit	Co-founder of software services venture; exit through trade sale	CEO of new for-profit venture	No

[1] To clarify, *all* these entrepreneurs episodically donated money in their individual capacity to social and religious charities – which is typical for middle-class Indians and is unsurprising, given the societal disparities. Philanthropic action as defined in this study emphasizes systematically stimulating, supporting and shaping social impact efforts.

Founder No.	Founder personal background	For-profit venture details	Primary Post-Exit Activity	Involvement in Philanthropy
C07	Male; higher caste; Non-elite Indian education; No foreign education; ~42 years old at exit	Co-founder of financial services venture; exit through IPO	CEO of IPO-ed firm	No
P01	Male; higher caste; Elite Indian education; No foreign education; ~35 years old at exit	Co-founder of e-commerce venture; exit through secondary sale	CEO of new for-profit venture	Yes (impact investing & mentoring non-profits)
P02	Female; higher caste; Non-elite Indian education; Foreign education; ~41 years old at exit	Co-founder of analytics venture; exit through trade sale	CEO of new social impact foundation	Yes (operating social enterprise & impact investing)
P03	Male; lower caste; Non-elite Indian education; No foreign education; ~45 years old at exit	Co-founder of software venture; exit through IPO	CEO of IPO-ed firm	Yes (impact investing & mentoring non-profits)
P04	Male; higher caste; Non-elite Indian education; No foreign education; ~38 years old at exit	Co-founder of ed-tech venture; exit through trade sale	CEO of new social impact venture	Yes (operating social enterprise, a non-profit & impact investing)
P05	Male; higher caste; Non-elite Indian education; Foreign education; ~35 years old at exit	Co-founder of financial services venture; exit through secondary sale	CEO of new social impact venture	Yes (operating social enterprise & impact investing)
P06	Male; lower caste; Non-elite Indian education; No foreign education; ~36 years old at exit	Co-founder of e-commerce venture; exit through trade sale	CEO of new social impact venture	Yes (operating social enterprise, a non-profit & impact investing)
P07	Female; higher caste; Non-elite Indian education; Foreign education; ~33 years old at exit	Co-founder of fintech venture; exit through trade sale	CEO of new social impact venture	Yes (operating social enterprise & mentoring non-profits)
P08	Male; higher caste; non-elite Indian education; No foreign education; ~48 years old at exit	Co-founder of Software venture; exit through secondary sale	Board member and mentor	Yes (mentoring social enterprises & non-profits)

Table D2. Illustrative Evidence on Successful Entrepreneurs' Perceptions of Pre- and Post-exit Personal Autonomy

Founder no.	Involvement in philanthropy	Interview data on time and other resource availability during venture building phase and post successful exit	Our theoretical interpretation	Abductive mapping
P03	Yes (Impact investing & mentoring non-profits)	*[Before IPO] I put all my focus on my company …. We went through many difficult times … we were hardly about 25 people in my small office - barely 250 square feet one-room where everyone used to sit - the sales person, developers, [co-founder] X and I… we couldn't even speak any confidential matters in my office - we used to go sit and argue in the garden! Last two years [since IPO], I started getting the right people on-board in leadership positions, so I have more time. I spend time with my family, I love music, I love movies and I love traveling but I don't have any other hobbies… I feel really lucky that I have had so many successes in my life… started reconnecting with my native place... I just wanted to help people in whatever way I can by motivating the younger generation*	Building a new venture till it achieves a successful exit is an activity that leaves founders will little slack resources	Increased availability of resources post exit
P01	Yes (Impact investing & mentoring non-profits)	*…As an entrepreneur you are working so hard building your venture and there is little money…the money shock is very difficult to understand unless you have gone through it. After IIM, working at [MNC#1] and [MNC#2], there was always enough money to spend on whatever and then from that, as an entrepreneur, you suddenly come to lots of months of the no-cash thing – when you think about doing it, it has a certain romanticism…. But when it actually happens, when you don't have money for cigarettes for example and your bank account is in two or three digits it is a different feeling! I was dependent on my (ex) wife; I just did not have the money …it was a roller-coaster ride personally. After exit… I thought I would take some time out and just think…because financially my exit was quite satisfactory, I had that luxury…. I spent some time in Goa and Bangalore generally just hanging around and thinking about what I want to do next…. I also went through a few lifestyle changes. I was much more overweight earlier… I had no time to take care of myself earlier, things were too hectic …now I started playing a lot of tennis, reading a lot*	Exit provides significant financial freedom at a relatively young age	
C02	No (CEO of IPO-ed firm)	*Life is a one-time opportunity! Before IPO, essentially we were working 16 hours a day building [X] and I don't see us letting the pace slip too much anytime soon. We have lots of things still left to do with [X] – feels natural to us to build an organization that outlives us. Financially we have all done very well personally – thanks to the IPO, but it's only after I turn 60, I will decide to spend time on other things in life.*	Lack of free time during the venture building phase till a successful exit	
P02	Yes (Operating social enterprise	*I stayed on for one and half years after the acquisition and then put in my papers… I had worked 16, 18 and almost 24 hours when we were building [our venture] and now suddenly in three months I am going to be absolutely free…the start-up world is a killer*	Post-exit entrepreneurs have significant	

Founder no.	Involvement in philanthropy	Interview data on time and other resource availability during venture building phase and post successful exit	Our theoretical interpretation	Abductive mapping
	& impact investing)	*so it wasn't easy…by the time we sold our business to [X] we had clients all over the world, we were literally servicing all time zones so we were always up, there was always a fire somewhere, always something or the other happening…. It's not like as our business grew, we as founders got any respite. So under those circumstances, while putting in my papers it felt like I am doing the best thing for myself which included pampering myself, have fun, catch up on everything that I missed out for seven years including spending more time with my children*	discretion in allocating their time	Greater latitude of action post exit
C03	No (CEO of new for-profit venture)	*We worked very hard building [X] and by the time we sold it we had built a large business, learnt a lot, and also earned our share of money if I may say so myself. So that was a good thing and allowed me to take some time off and think about what to do next. The idea of building another successful big company gives me a kick…I basically want to try and solve a large problem… a big pain point …which is what I am trying to do with my new venture [Y] in the housing sector*	Successful exit provides greater latitude of action	

APPENDIX E

Features of Commercial Entrepreneurs' Philanthropic Involvement

We conceptualized three features of a commercial entrepreneur's philanthropic involvement: (i) Beneficiaries (ii) Sector and (iii) Scope. Additional searches related to the description of philanthropic efforts pursued by the transitioned entrepreneurs yielded data to code philanthropic involvement for 75 entrepreneurs along these three features. Table E1 describes these categorizations and coding of our binary measures indicating the presence or absence of each feature. Figures E1 through E3 graph the mean percentage occurrence of each feature, and Table E2 reports descriptive statistics and correlation table.

Table E1. Conceptualizing Features of Involvement in Philanthropy

Feature	Description	Our Coding of Indicator Variables
Beneficiaries	The key beneficiaries of the philanthropic actions. Coded from publicly available data into non-mutually exclusive categories of children, community, women & elderly	Children: Directed towards children
		Women: Directed towards women
		Elderly: Directed towards elderly
		Community: Directed towards broad community e.g. for rural development, or urban environment etc.
Sector	The content of activity, in terms of the domain / verticals of the philanthropic actions. Coded into non-mutually exclusive categories of education, employability, health care, environment & culture	Education: Targeted at the education sector
		Employability: Targeted at improving employment opportunities such as through vocational and/or livelihood training activities
		Health Care: Targeted at the health care sector
		Environment: Targeted at saving the natural environment
		Culture: Targeted towards promoting cultural and/or religious activity
Scope	How the activity is delivered – whether by focusing on a few sectors / geographies or more broadly. Coded into non-mutually exclusive categories of sector focus and regional focus	Sector focus: Concentrated by domain of activity into specific sectors among education, employability, health-care, environment and culture. Coded as 1 if focus is at most on two sectors / verticals.
		Regional focus: Geographically concentrated in one Indian state. Coded as 1 if focused on a single state.

Table E2. Features of Involvement in Philanthropy: Descriptive Statistics and Correlations

	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11
1. *Children*	0.64	0.48	1.00										
2. *Women*	0.25	0.44	0.28†	1.00									
3. *Elderly*	0.09	0.29	0.24†	0.48**	1.00								
4. *Community*	0.59	0.50	-0.29†	0.14	0.20	1.00							
5. *Education*	0.63	0.49	0.79**	0.17	0.06	-0.19	1.00						
6. *Employability*	0.23	0.42	-0.10	0.52**	0.18	0.20	0.11	1.00					
7. *Healthcare*	0.51	0.50	-0.11	0.29†	0.25†	0.36*	-0.08	0.11	1.00				
8. *Environment*	0.13	0.33	-0.32*	0.03	-0.14	0.25†	-0.31*	-0.15	0.15	1.00			
9. *Culture*	0.08	0.27	0.14	0.34*	0.59**	0.17	-0.14	0.03	0.20	-0.08	1.00		
10. *Sector focus*	0.59	0.50	-0.16	-0.49**	-0.37*	-0.46**	-0.24†	-0.43**	-0.35*	-0.20	-0.27†	1.00	
11. *Regional focus*	0.58	0.50	0.12	-0.11	-0.06	-0.04	0.10	-0.29†	-0.07	-0.07	-0.11	0.05	1.00

Notes: N=75 observations. $^{\dagger}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$.

Figure E1. Beneficiaries Targeted by Entrepreneurs Involved in Philanthropy[a]

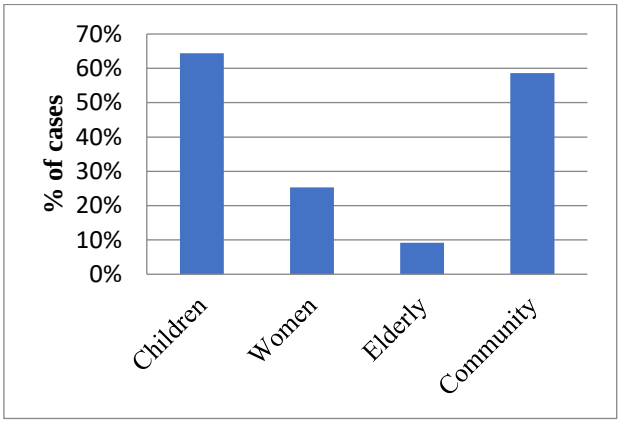


Figure E2. Sectors (Domains / Verticals) Targeted by Entrepreneurs Involved in Philanthropy[a]

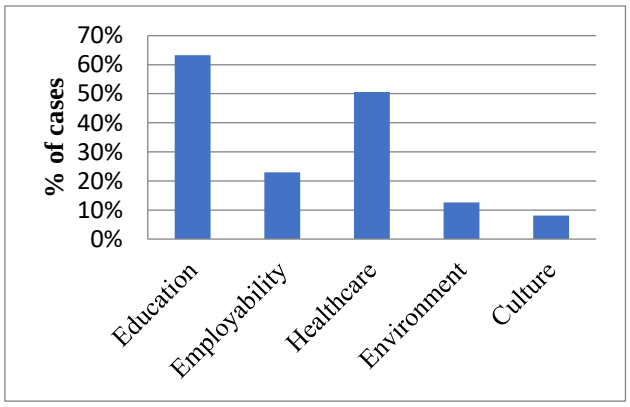
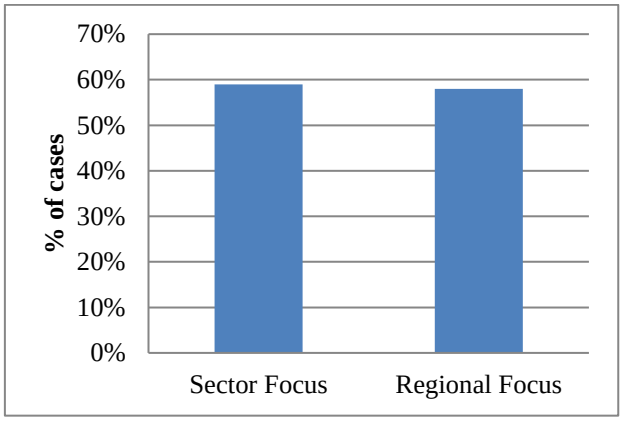


Figure E3. Scope of Activity Targeted by Entrepreneurs Involved in Philanthropy[a]



[a] Because the categories are not mutually exclusive, the frequencies do not add up to 100%

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