

Supplemental Materials

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Table of Contents

Section	Page
Introduction	3
Section 1: Methods	
Full List of Measures in Order	4
Depiction of Explicit Gender Identification Measure	5
Depiction of Value Measure	6
Factor Analysis on Value Measure	8
Stimuli for Implicit Gender Categories	9
Depiction of Family vs. Career Aspiration measure	10
Section 2: Additional Analyses	
Correlations and Means by Gender	14
Mediational Analyses by Age	15
Mediation Analyses Controlling for non-matched GID measure	16
Main Analyses Controlling for Age and RA gender	18
Section 3: Understanding Children's Open-ended Career Aspirations	
Method	20
Results	22
Discussion	24

Introduction

The following is a document containing supplementary documentation for the manuscript
“Early Gender Differences in Core Values Predict Anticipated Family vs. Career Orientation.”

The objective of the current work was to examine evidence for gender differences in children’s core values, and possible relationships of such gender differences to children’s anticipated future roles. Findings reported in the main manuscript suggest that boys tend to value communion less, and agency more, than do girls, and these gender differences in values partially explain their relatively lower family- (vs. career) orientation.

Section 1: Methods

Section 1 of these supplementary materials provides additional detail and concrete stimuli used in the measures reported in the main manuscript.

Full List of Measures in Order

Measures used in analyses indicated with *

Child measures in order.

- Implicit Gender Identity*
 - See items in next section
- Explicit Gender Identity (4 items)*
- Explicit Gender Identity Importance
- Explicit Communal (4 items)*
- Explicit Agentic Values (3/4 Items)*
- Is your primary teacher a man or a woman?
- What is your favorite thing to do?
- What is your favorite toy?
- What is your favorite TV show?
- When you grow up, what do you want to be?*
- Closeness to mom
- Closeness to dad
- Family vs. Career Orientation (2 items)*

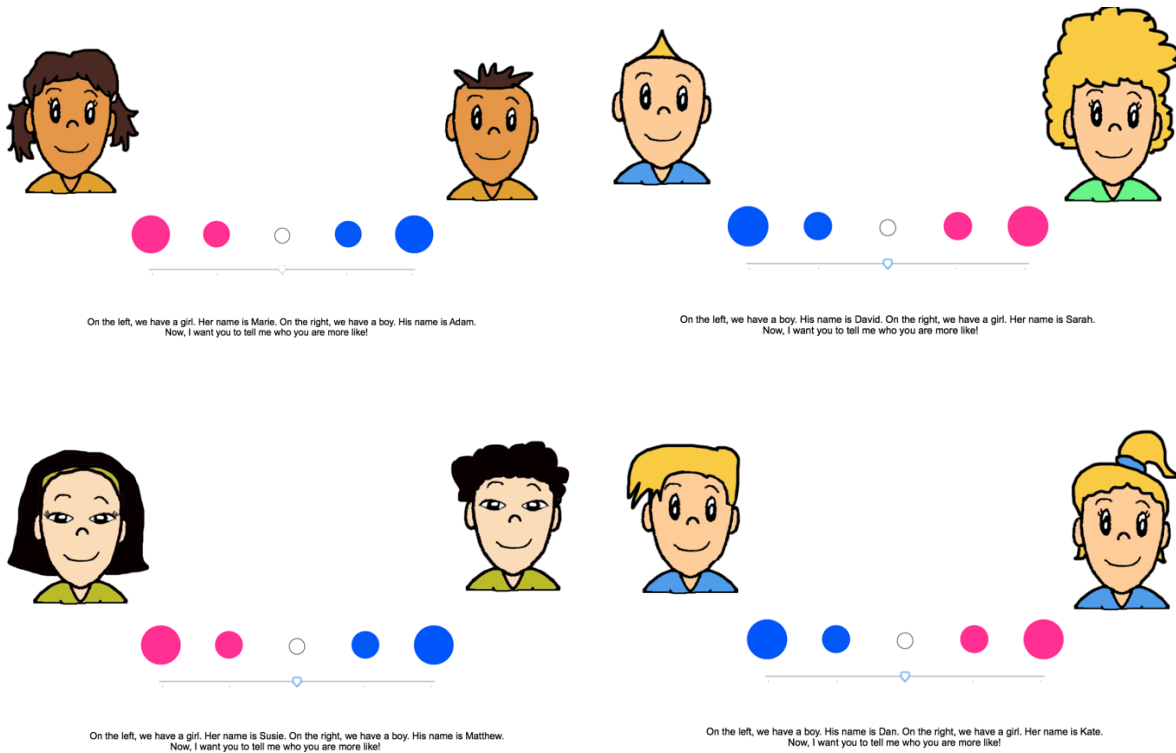
Parent measures in order.

- What is your child's first name?
- What is your child's date of birth?*
- What is your child's gender?*
- Which of the following best describes your child's ethnicity?
- What is YOUR gender?
- Which of the following best describes YOUR ethnicity?
- What is your approximate annual household income? (in CAD)
- What is the highest level of education you have achieved as of today? Select which one of the following best represents your own highest level of educational achievement:
- What is your political orientation?
- Compared to other children that are the same AGE and GENDER as your child, how masculine is your child?*
- Compared to other children that are the same AGE and GENDER as your child, how feminine is your child?*

- parent-report measures of behavioral expression Johnson and colleagues (2004)*
- parent-report measures of gender dysphoria by Johnson and colleagues (2004)
- Which of the following options most closely resembles the parenting structure in your household?
- Who is the primary caregiver in your household?
- Who is the primary breadwinner in your household?
- How many siblings does your child have?
- What gender are the siblings?
- How many hours a week do you work?
- How many hours a week does your partner work? (if not applicable put: NA)

Stimuli used in Measures

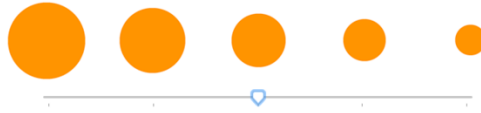
Depiction of Explicit Gender Identification Measure.



Depiction of Values Measure.

SUPER Important

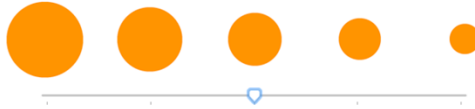
Not very Important



How important do YOU think it is to be the one who gets to make decisions?

SUPER Important

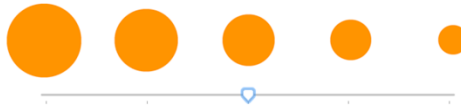
Not very Important



How important do YOU think it is to win?

SUPER Important

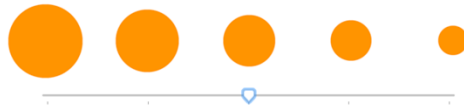
Not very Important



How important do YOU think it is to be good at things?

SUPER Important

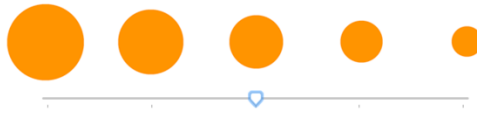
Not very Important



How important do YOU think it is to do things all by yourself?

SUPER Important

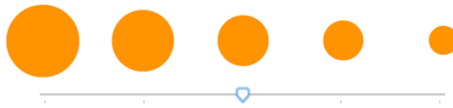
Not very Important



How important do YOU think it is to always help others, even if it takes effort?

SUPER Important

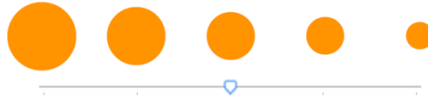
Not very Important



How important do YOU think it is to think about others' feelings?

SUPER Important

Not very Important



How important do YOU think it is to be kind to others?

SUPER Important

Not very Important



How important do YOU think it is to do things together with others?

Factor Analyses on Value Measure

To explore whether our communal and agentic value items truly factored onto two distinguishable factors, we entered the items into an exploratory maximum likelihood factor analyses with direct oblimin rotation and no restriction of number of factors. Results suggested that items loaded onto only two factors that had an eigenvalue greater than 1. Factor 1, onto which mainly communal values loaded (see table S1), had an initial eigenvalue of 2.39 and accounted for 34.17% of variance in the data. Factor 2, onto which mainly agentic items loaded, had an eigenvalue 1.56 and accounted for 22.22% of the variance in the data. The factors were correlated at $r = .26$.

Table S1. *Pattern Structure of Communal and Agentic Value Items Rotated to the Oblimin Criterion*

Variable	Factor 1: Communal	Factor 2: Agentic
How important do you think it is ...		
... to always help others, even if it takes effort?	.71	
... to be kind to others?	.69	
... to think about others' feelings?	.53	
... to do things together with others?	.47	
... to win?		.77
... to be good at things?		.58
... to be the one who gets to make decisions?		.58

Note. Factor loadings $< .10$ are suppressed.

Stimuli for Implicit Gender Categories

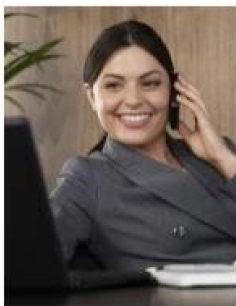


Depiction of Family vs. Career Aspiration Measure

Here are **Clara** and **Carina**. When they were your age they were neighbours, so they saw each other a lot. Now they are all grown up. **Clara** has one child, who goes to daycare during the day so that she can go to her office job. **Carina** now has 2 children and stays at home to take care of them and the house.

One day you will also be all grown up!

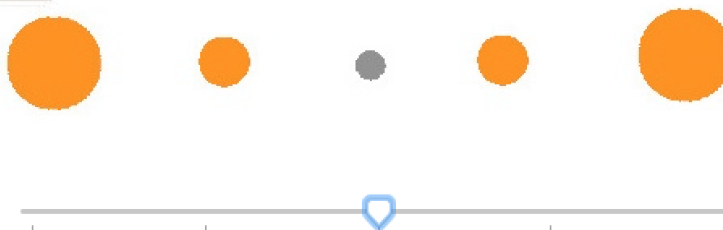
When you are grown up, who do you think you will be more like?



Clara



Carina



Here are **Jessica** and **Jennifer**. When they were your age, they played a lot together. Now they are all grown up. Now, **Jessica** has job at a marketing company. She likes her job, although, she often has to stay there late and can't look after her kids. **Jennifer** used to work long hours too but now she only works 3 days a week so she can spend time with her family.

One day you will also be all grown up!

When you are grown up, who do you think you will be more like?



Jessica



Jennifer



Here are **Tom** and **Mike**. When they were your age, they played a lot together. Now they are all grown up. Now, **Tom** has job at a marketing company. He likes his job, although, he often has to stay there late and can't look after his kids. **Mike** used to work long hours too but now he only works 3 days a week so he can spend time with his family.

One day you will also be all grown up!

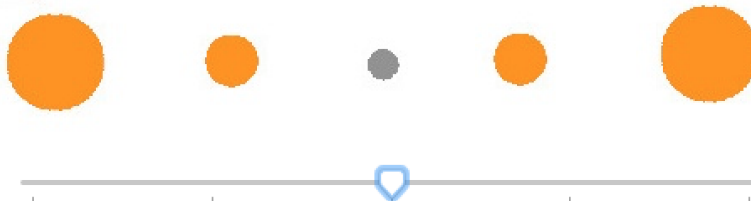
When you are grown up, who do you think you will be more like?



Tom



Mike



Here are **Luke and Kyle**. When they were your age they were neighbours, so they saw each other a lot. Now they are all grown up. **Luke** has one child, who goes to daycare during the day so that he can go to his office job. **Kyle** now has 2 children and stays at home to take care of them and the house.

One day you will also be all grown up!

When you are grown up, who do you think you will be more like?



Luke



Kyle



Section 2: **Additional Analyses**

Section 2 for these supplementary materials focuses on additional exploratory analyses probing the main findings reported in the paper more deeply. These include analyses split by age-group, controlling for age, and controlling for research assistant gender.

Table S1.

Correlations and Means of all Study Variables by Gender

	1.	2.	3.	4.	5	6	7	8	9	10	M _{boy} (SD)	M _{girl} (SD)
1. Age		-.15*	-.06	-.12	-.37*	.08	.12 [#]	-.24*	-.004	.21*	9.98 ^a (2.29)	9.59 ^a (2.17)
2. Communal Values (1-5)	-.13 [#]		-.03	.15*	.19*	.03	.13 [#]	.09	.13	-.20*	4.38 ^a (0.59)	4.52 ^b (0.48)
3. Agentic Values (1-5)	.08	-.27*		-.09	.07	-.01	.12	-.04	.06	-.03	2.77 ^a (1.00)	2.48 ^b (0.99)
4. Family Orientation (1-5)	-.05	.18*	-.21*		.03	-.03	-.10	.10	-.03	-.05	3.05 ^a (0.94)	3.38 ^b (0.87)
5. Parent-reported femininity (Z-Score)	.06	-.08	-.09	.12 [#]		.001	.12	.10	.01	-.04	-0.63 ^a (.33)	0.67 ^b (.38)
6. Implicit Female Identification	-.11	.08	.05	-.05	-.04		-.07	.03	.03	.03	-.22 ^a (.39)	.27 ^b (.38)
7. Explicit Female Identification	-.19*	-.001	-.01	.04	.21*	.03		-.03	.08	.000	2.05 ^a (0.85)	4.01 ^b (0.67)
8. Career femininity	.03	-.10	.04	.05	-.02	.10	-.03		.12	-.41*	1.30 ^a (0.57)	2.33 ^b (0.74)
9. Career communality	-.01	.04	-.03	-.10	-.09	.02	-.06	.38*		.01	1.50 ^a (0.71)	1.87 ^b (0.88)
10. Career agency	.16*	-.003	.05	-.17*	-.19*	.009	-.03	-.04	.04		2.11 ^a (0.63)	1.83 ^b (0.73)

Notes. Correlations for boys below the diagonal, correlations for girls above the diagonal. The ethnicity-matched measure of explicit female identification is reported here

* $p < .05$, [#] $= < .10$

Testing for Moderated Mediation by Age

The main manuscript reports a significant mediational model in which gender differences in family-orientation are mediated by gender differences in values. In these supplemental analyses, we examined whether any paths in this mediational model are moderated by age. These analyses were exploratory; we had no *a priori* hypotheses. We tested a moderated mediation model that allowed each path (a, b and c' path of the mediation model) to be moderated by age. As seen in Figure 2, these analyses suggest that age does not moderate gender differences in communal values, gender differences in agentic values, gender differences in family orientation, or the relationship of the two core values to family-orientation. Because we are underpowered to formally detect a moderated mediation, reporting indirect effects for children younger (-1SD in age) vs. older (+1SD) in age might still be informative to readers, even if the age does not formally moderate effects. As can be seen in Table 2, these analyses provide some suggestion that that the gender difference in family-orientation is mediated by core values for children who are at or above the mean age in the sample ($M = 9.84$ years). Mediational effects in younger children (- 1SD) were non-significant. These results suggest that the link between gendered values and aspirations could possibly be getting stronger with age. However, due to sample size constraints, we have inconsistent evidence that the mediational role of values in gender differences in family-orientation differs by age in our sample.

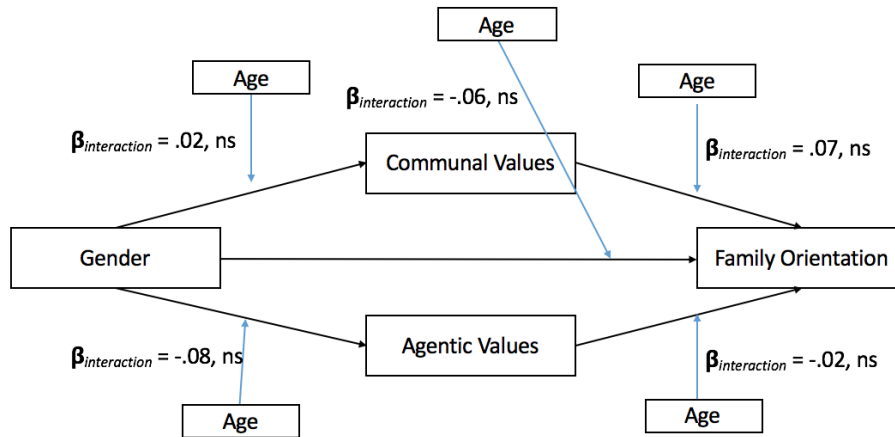


Figure 2. Mediation moderated by Age.

Table S3. Indirect effect sizes for Values mediating Gender Differences in Family Orientation by Age Group.

	Younger (- 1SD) (~ age 7)			Mean Age (~ age 9)			Older (+ 1 SD) (~ age 11)		
	IE	SE	CI.95	IE	SE	CI.95	IE	SE	CI.95
Communal	.006	.010	-.004, .04	.015	.009	.002, .037	.025	.017	.002, .068
Agentic	.008	.013	-.007, .051	.021	.012	.004, .051	.036	.023	.002, .094

Note. Results above display indirect effect sizes for mediational analyses modelling communal and agentic values as mediators of gender differences in family-orientation. Significant effects italicized.

Analyses Controlling for Non-Ethnicity matched explicit GID Measure

In our original analyses, we computed explicit gender identification as participants' responses to all four. In response to the request from an anonymous reviewer, we recoded gender identification to only include the responses to items that matched the child's ethnicity (or to the 4-item composite for mixed ethnicity for unknown ethnicity children). Below are the results with the original 4-item composite measure used for all children in the sample.

Table S4.

Correlations and Means (SD) by Gender with Original 4-Item Composite Measure of Explicit Gender Identification Measure

	1.	2.	3.	4.	5	6	7	M _{boy} (SD)	M _{girl} (SD)
1. Age		-.15*	-.06	-.12	-.37*	.08	.19*	9.98 ^a (2.29)	9.59 ^a (2.17)
2. Communal Values (1-5)	-.13 [#]		-.03	.15*	.19*	.03	.11	4.38 ^a (0.59)	4.52 ^b (0.48)
3. Agentic Values (1-5)	.08	-.27*		-.09	.07	-.01	.11	2.77 ^a (1.00)	2.48 ^b (0.99)
4. Family Orientation (1-5)	-.05	.18*	-.21*		.03	-.03	-.04	3.05 ^a (0.94)	3.38 ^b (0.87)
5. Gender expression (Z-Score)	.06	-.08	-.09	.12 [#]		.001	.08	-0.63 ^a (.33)	0.67 ^b (.38)
6. Implicit Female Identification	-.11	.08	.05	-.05	-.04		-.05	-.22 ^a (.39)	.27 ^b (.38)
7. 4-item Explicit Female Identification	-.17*	.04	-.12 [#]	.04	.21*	.03		2.08 ^a (0.66)	3.92 ^b (0.51)

Notes. Correlations for boys below the diagonal, correlations for girls above the diagonal.

Means that do not share the same subscript differ significantly, $p < .05$.

* $p < .05$, # = $< .10$

Results from linear regressions analyses testing gender, age and their interaction as predictors of the original explicit female identification measures showed a large gender difference in explicit female identification, with girls explicitly identifying more strongly with females than did boys, $\beta = .84$, $SE = .06$, $t(406) = 31.31$, $p < .001$. While we observed no main effect of age, $\beta = -.02$, $SE = .03$, $t(406) = -0.58$, $p = .566$, the main effect of gender was qualified by a significant gender by age interaction, $\beta = .13$, $SE = .06$, $t(405) = 3.62$, $p < .001$. Decomposing this interaction suggested that the tendency to explicitly identify with girls more than with boys increased with age among girls, $\beta = .09$, $SE = .04$, $t(405) = 2.29$, $p = .022$, and decreased with age among boys, $\beta = -.10$, $SE = .04$, $t(405) = 2.86$, $p = .004$.

Results of analyses controlling for children's implicit and original explicit gender identification (H2a) revealed neither explicit identification as female vs. male, $\beta = .02$, $SE = .09$,

$t(374) = 0.21, p = .833$, nor implicit identification as female vs. male, $\beta = .04, SE = .06, t(374) = 0.62, p = .539$, significantly predict children's family vs. career orientation (over and above dichotomous gender and values). Importantly, both communal, $\beta = .12, SE = .05, t(374) = 2.37, p = .018$, and agentic values, $\beta = -.11, SE = .05, t(374) = -2.22, p = .027$, remained significant predictors of family vs. career orientation when controlling for these two gender identification variables. Moreover, the indirect effects of child gender on family vs. career orientation through communal, $IE = .01, SE = .01, CI_{.95} (.002, .04)$, and agentic values, $IE = .02, SE = .01, CI_{.95} (.001, .05)$, also remained significant, though small.

Analyses Controlling for Age and Experimenter Gender.

We wanted to ensure that our key findings (gender differences in communion and agency that relate to gender differences in family-orientation) were not confounded with children's age or the gender of the research assistant that led them through the study. To test this, we conducted mediational analyses with the PROCESS macro (Hayes, 2013), entering participant gender as a predictor, and communal and agentic values as simultaneous mediators, predicting children's self-reported family- (vs. careers) orientation (all standardized) as before. In addition, we now added experimenter gender (0=male/1=female) and age (z-scored) as control variables for both the a and b-paths into this model. Results were unchanged by including these covariates (main model results included in parentheses for easier comparison): boys' in our data tended to endorse communal values less, $\beta = .11, SE = .05, t(393) = 2.23, p = .026$ (previous: $\beta = .12, SE = .05, t(406) = 2.43, p = .015$), and agentic values more, $\beta = -.15, SE = .05, t(393) = -2.94, p = .003$ (previous: $\beta = -.14, SE = .10, t(406) = -2.93, p = .004$), than did girls. Also as in previous analyses, anticipating a family- rather than a career-oriented future was predicted by both higher communal values, $\beta = .14, SE = .05, t(391) = 2.55, p = .011$ (previous" $\beta = .14, SE = .05, t(395)$

= 2.81, $p = .005$), and lower agentic values, $\beta = -.13$, $SE = .05$, $t(391) = -2.64$, $p = .009$ (previous: $-.13$, $SE = .05$, $t(395) = -2.56$, $p = .011$). In addition, significant indirect effects consistent with both boys' lower communal, $IE = .01$, $CI_{.95} (.002, .004)$, $p < .05$, and higher agentic values, $IE = .02$, $CI_{.95} (.003, .05)$, $p < .05$, accounting for their relatively low family-orientation remained significant with these controls. Age itself predicted less endorsement of communal values on average, $\beta = -.15$, $SE = .05$, $t(393) = -3.20$, $p = .002$, but not agentic values or family-orientation, $\beta s < .05$, $ts < 0.95$, $ps > .34$. Experimenter gender predicted none of these outcomes significantly, $\beta s < .12$, $ts < 0.93$, $ps > .35$. Additional analyses also tested whether RA gender moderated any of the mediational paths, using moderated mediational analyses with the PROCESS macro (Hayes, 2013; Model 58). Results from these analyses also suggested that researcher gender did *not* moderate the relationship between gender and communal values, the relationships between gender and agentic values, or the relationships between each type of value and family vs. career orientation, $\beta s < .08$, $ts < 1.63$, $ps > .104$. Together, these analyses suggest that our main effects are robust when controlling for child age and gender of the experimenter, although we caution that there was only a single male RA who ran only 62 children (15 % of sample).

Section 3: Understanding Children's Open-ended Career Aspirations

Part 3 of our supplementary materials focuses on analyses of an additional measure of aspirations – children's open-ended reports of what they want to be when they grow up. In addition to values predicting future family vs. career orientation, we initially thought it was possible that boys' and girls' values would also predict what kinds of specific careers they aspire to. We thus asked children to report what they “want to be when they grow up” and coded their responses for their gender stereotypicality (feminine vs. masculine career) and the extent to

which they afforded communal goals, as well as the extent to which they afforded agentic goals. We predicted that boys' (as compared to girls') would nominate careers that would be rated as less feminine, less communal, but possibly more agentic by our blind coders. In addition, we expected that children's own communal values (and possibly their agentic values) would predict more feminine, more communal, and possibly less agentic career nominations. Because the large amount of missing data on this variable precludes direct comparison to our other outcome measures, and does not relate to any other variables in our dataset, we decided to move these analyses into the supplementary section.

Method

Open-ended Measure. To assess children's aspired careers, we asked children "what do you want to be when you grow up?". Open ended responses were typed by the research assistant and coded for 3 characteristics by four coders blind to the gender of participants; two coders assessed: 1) *female vs. male stereotypicality* (using coding scheme from Croft et al., 2014; $ICC = .87$), and two separate coders assessed the degree to which each career would afford: 2) *communal goals* such as helping others ($ICC = .79$), and 3) *agentic goals* such as achieving personal success ($ICC = .73$). Each characteristic was scored on a scale of 1 to 3 (see word-for-word coding instructions for coders below). Missing data was observed for 85 children who gave made uncodable responses (e.g., "Crown", "retired") or gave no response, resulting in a substantially lower sample size for analyses including this variable.

Coding Schemes for Open Ended Responses

Coding scheme 1 – Femininity vs. Masculinity.

"Your task will be to read through each participant's answers and assign each answer a code. Note that both adults and kids are in this dataset, but that should not matter. The code will indicate the extent to which each of the following variables are more stereotypically male or stereotypically female in nature. Each of you will do so in their own excel document.

- Place the code in the column NEXT to the participants answer, with will be labeled like the variable + CODED. So, for example, there will be a column for “Fav_Thing” in which participants reported what their favorite activity is. Next to it, there will be a column called “Fav_ThingCODED” in which you will enter the numerical code.

- **If** a participant has *left an answer blank*, please leave the corresponding space in the “coded” column blank as well.

- **If** you come across an answer that is essentially “*uncodable*” for one reason or another, please put an X in the corresponding space in the “coded” column. Then, in a separate document, please keep a log/record of all the participant numbers and variable names you deemed “uncodable”.

Variable Descriptions:

1) Label: fav todo

Question: What is your favorite thing to do?

rating:

In our society, some **activities** are seen as stereotypical of girls (e.g. playing with dolls, playing dress-up) while others are seen as stereotypical of boys (e.g. playing with trucks, playing hockey). In addition, some activities are seen as more or less gender neutral. On the following scale, please rate whether the activity indicated by the child is more typically connected to males, to females or reflects a gender-neutral activity.

1 = Activity is more stereotypical of **males**

2 = Activity is gender neutral

3 = Activity is more stereotypical of **females**

Coding Scheme 2 – Communion vs. Agency.

“For each of the career aspirations our child participants listed, we would like you to think about how communal and how agentic the job is. For each job, ask yourself:

To what extent does this job allow people to fulfill communal goals, and to what extent does this job allow people to fulfill agentic goals.

Communal Goals:

Goals surrounding serving other’s needs, helping other people, caring for others, making social connections

Agentic Goals:

Goals surrounding self-promotion, success, achievement, status, competence

So, for each answer a child provided you will give a score under two variables. Give scores as follows:

Communal_Jobs*1 = Not at all Communal/Somewhat un-communal**2 = Neutral/Somewhere in between**3 = Definitely Communal***Agentic_Jobs***1 = Not at all Agentic/Somewhat un-agentic**2 = Neutral/Somewhere in between**3 = Definitely Agentic***IMPORTANT NOTES:**

- *When the kid did not provide an answer, leave the variables blank*
- *If you feel the answer might not be codable (like sometimes kids will say “I want to be unicorn), please mark the column red and put “NA”*
- *Make sure you give the same value to the same job always. (e.g. Nurse always a 3 on communal, and Banker always a 3 on Agentic). Sorting the columns like I did should help with that.*
- *Make sure you don’t resort the columns separately to avoid that subject numbers and answers don’t match anymore.”*

Results

Age and Gender Differences. To first examine gender and age effects on children’s aspired careers, we entered children’s gender (male = 0, female = 1) and age (standardized) as predictors on step 1, and their interaction on step 2 of hierarchical linear regression models predicting coder-rated 1) femininity (vs. masculinity), 2) communality, and 3) agency of children’s nominated careers. As expected, aspired careers nominated by boys were rated as less female-stereotypic, $\beta = .61$, $SE = .07$, $t(323) = 14.01$, $p < .001$, less communal, $\beta = .22$, $SE = .09$, $t(323) = 4.13$, $p < .001$, and more agentic, $\beta = -.19$, $SE = .07$, $t(323) = -3.54$, $p < .001$, than careers nominated by girls. After accounting for gender, older children’s nominated careers were more agentic on average, $\beta = .19$, $SE = .04$, $t(323) = 3.50$, $p = .001$, and age and gender interacted in predicting the femininity of aspired careers, $\beta = -.12$, $SE = .07$, $t(322) = -2.04$, $p = .037$. Decomposing this interaction revealed that older girls reported less female-stereotypic aspired careers than did younger girls, $\beta = -.21$, $SE = .05$, $t(322) = -3.23$, $p = .001$. For boys, age

did not predict the femininity of their aspired occupations or, $\beta = -.03$, $t(322) = -0.47$, $p = .637$. Age and age by gender interactions did not predict other characteristics of aspired careers.

Values and Characteristics of Aspired Careers? To test whether gender differences in value endorsement could also help explain gender differences in 1) femininity (vs. masculinity), 2) communal, or 3) agentic goal-affordance of the aspired careers a child nominated, we conducted mediational analyses with the PROCESS macro (Hayes, 2013), entering gender as a predictor, and communal and agentic values as simultaneous mediators, predicting each of these codings of children's aspired careers as outcomes. Note that our sample size for these analyses are much smaller because a number of children gave either no aspired career or gave answers that could not be coded as masculine or feminine.

Since a-path analyses (gender differences in values) are essentially the same as those reported in the main manuscript, we here concentrate on the novel test of the relationship between children's core values and characteristics of their aspired career. Results revealed communal values did not significantly predict femininity, $\beta = -.01$, $SE = .05$, $t(328) = -.17$, $p = .866$, communality, $\beta = .09$, $SE = .06$, $t(322) = 1.47$, $p = .142$, or agency-ratings of children's aspired careers, $\beta = -.10$, $SE = .06$, $t(322) = 1.65$, $p = .101$. Similarly, agentic values did not significantly predict femininity, $\beta = -.01$, $SE = .04$, $t(328) = -0.12$, $p = .904$, communality, $\beta = .03$, $SE = .06$, $t(322) = 0.56$, $p = .573$, or agency-ratings of children's aspired careers, $\beta = -.005$, $SE = .06$, $t(322) = -0.09$, $p = .930$. These results provide little evidence that gender differences in endorsement of communal and agentic values can account for gender differences in what kind of specific careers children aspire to in the age range our sample.

As we did with family vs. career-orientation as an outcome in the main manuscript, we also repeated analyses controlling for 1) implicit gender identification, 2) explicit gender

identification and 3) parent-rated femininity in the relationship between children's values and the characteristics of their aspired careers (separate models for each control to preserve degrees of freedom). We might have expected, for example, that these gender-specific variables could be more predictive of gender-typical career aspirations than core values. However, results revealed that parent-reported femininity did not significantly predict more femininity ratings, $\beta = .09$, $SE = .10$, $t(302) = 0.96$, $p = .339$, communality ratings, $\beta = -.07$, $SE = .12$, $t(297) = -0.57$, $p = .566$, or agency ratings of children's aspired careers, $\beta = -.21$, $SE = .12$, $t(297) = -1.81$, $p = .072$. In addition, implicit female identification did also not significantly predict more feminine aspired careers, $\beta = .05$, $SE = .05$, $t(313) = 0.87$, $p = .383$, more communal aspired careers, $\beta = .02$, $SE = .06$, $t(309) = 0.24$, $p = .808$, or more agentic aspired careers, $\beta = .05$, $SE = .07$, $t(309) = 0.76$, $p = .447$. Similarly, explicit female identification did not significantly predict more feminine aspired careers, $\beta = -.03$, $SE = .08$, $t(327) = -0.34$, $p = .736$, more communal aspired careers, $\beta = .004$, $SE = .10$, $t(321) = 0.04$, $p = .971$, or more agentic aspired careers, $\beta = -.04$, $SE = .10$, $t(321) = -0.43$, $p = .669$. Importantly, regardless of whether we controlled for implicit gender identification, explicit gender identification, or parent-rated gender expression, communal values, $\beta s < .11$, $ps > .076$, and agentic values, $\beta s < .05$, $ps > .800$, remained non-significant predictors of the three characteristics of children's aspired careers.

Discussion

We expected that to the extent that boys and girls differ in their endorsement of communal and agentic values, they would nominate different types of aspired careers. Our data suggested that careers chosen by boys vs. girls differed both in their femininity and their value affordance; as expected, boys' nominated careers that were less feminine and communal, but more agentic, than did girls. This pattern is similar to patterns of career preferences seen in past

research (Weisgram et al., 2010). However, while these results suggest gender-stereotypical preferences in aspired careers similar to research with adults (e.g., Evans & Diekmann, 2009), we found no evidence for a relationship between children's core values and specific career orientation. In fact, these career preferences were unrelated to any of our measured variables from parents or children.

Perhaps the most likely explanation for these null findings is that our measure of career orientation was not reliable and/or sensitive enough to detect effects. In the adult literature, career interest is measured with ratings to a large set of careers, leading to a more reliable scale (Evans & Diekmann, 2009). In comparison, children in our sample self-reported a single career.

A somewhat different possibility is that any kind of a career measure might be insensitive if children's concrete knowledge of careers is actually impoverished. Children's responses were rated by coders on a 3-point scale to assess goal affordance or stereotypicality. If children do not yet have to realistically think about what careers are actually viable options for them (as illustrated by answers like "unicorn"), then it is unlikely that children consider whether a career will match their goals in the same way adults might. Thus, children's beliefs about these careers might be relatively disconnected to how coders have rated them. If children's understanding of which goals certain careers afford has not fully developed by this age, we would not expect a significant relationship between children's more basic values and their stated career preferences.

Finally, data loss is still a real concern for detecting hypothesized relationships. Sensitivity analyses suggest that at the sample size of 325, the minimal effect size to be detected with 85% power is $r = .16$. The sample is not sufficiently powered to detect effects smaller than this, even if such effects were to exist. Hence, future studies are needed to address whether boys'

and girls' core values predict how they evaluate very specific careers using an adequately sized sample size.