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Gender role identity and gender intensification: Agency and communion in adolescents' spontaneous self-descriptions

Selma Korlat , Nora Maria Foerst , Marie-Therese Schultes ,
Barbara Schober , Christiane Spiel  and Marlene Kollmayer 

Department of Developmental and Educational Psychology, University of Vienna, Vienna, Austria

ABSTRACT

In line with gender stereotypes, girls are expected to take on communal roles and boys to take on agentic roles. Based on gender intensification theory, the present cross-sectional study investigated girls' and boys' gender role identity and corresponding age differences across adolescence using the spontaneous self-description method. In total, 3423 adolescents aged between 11 and 15 years were asked to describe themselves with three attributes later coded in terms of agency and communion. ANOVA results showed expected but small gender differences in agency and communion, and no evidence for gender intensification. Moreover, significant gender differences were found in only 17% of the named attributes. The results thus indicate greater gender similarities than gender differences in adolescents' self-descriptions.

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KEYWORDS Agency; communion; adolescents; gender role identity; stereotypes

Children learn about the social categories of gender from earliest infancy. Socializing agents (e.g., parents and teachers) convey which traits and behaviours are acceptable for girls and boys, shaping children's self-image and self-efficacy (Bussey & Bandura, 1999). In Western culture, boys are taught through everyday experiences to express independence, self-assertion and dominance, whereas girls learn to be caring, kind and focused on others (Helgeson, 1994; Kollmayer et al., 2018a). Whilst gender differences typically remain small in childhood, they seem to become more pronounced in adolescence (Retelsdorf et al., 2015). Adolescence is considered a crucial period for the adoption and intensification of gender-typical traits and behaviours due to increased socialization pressure to

CONTACT Selma Korlat  selma.korlat@univie.ac.at

 Supplemental data for this article can be accessed [here](#).

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conform to traditional gender roles (Hill & Lynch, 1983). The outcomes of this developmental process impact one's psychological adjustment and health (Helgeson, 1994; Helgeson & Fritz, 1999). It has been repeatedly shown that differences in the extent to which individuals adopt stereotypically masculine and feminine traits in their self-concept impact their psychological well-being (Abele, 2014; Fournier & Moskowitz, 2000; Helgeson, 1994; Saragovi et al., 2002; Sheldon & Cooper, 2008). Moreover, adolescence is a critical period for shaping educational and career choices, which are significantly influenced by gender self-stereotyping in this period of life (Gottfredson, 2002). Despite its importance for adolescents' present and future opportunities, adaptation and overall psychological functioning, studies examining gender self-stereotyping and its intensification in adolescence are scarce. Moreover, existing studies have been criticized for relying solely on predetermined attribute lists such as the Bem Sex Role Inventory (BSRI; Bem, 1974) to assess the extent to which individuals describe themselves in stereotypically gendered ways – an approach that may not capture the most salient aspects of a person's self-concept. Therefore, the aim of this study is to test the gender intensification hypothesis by investigating adolescents' spontaneous self-descriptions.

Agency and communion

Bakan (1966) identified two primary motives in human existence: On the one hand, striving for individuality by differentiating oneself from others; on the other hand, seeking social integration and a sense of belonging. These two fundamental motives are conceptualized as agency and communion – two dimensions of social cognition upon which individuals evaluate and describe themselves, sometimes referred to as the "Big Two" (Abele et al., 2016). These basic dimensions also capture the distinction between instrumental and expressive attributes originally noted in the domain of gender roles (Bem, 1974; Spence et al., 1975). Communion-oriented individuals describe themselves in expressive terms by referring to their relationships with others and their sense of belonging, while agency-oriented individuals describe themselves instrumentally in view of their individual accomplishments and capabilities (Abele et al., 2016; Bakan, 1966; Diehl et al., 2004). Recent research has demonstrated that agency and communion further subdivide into different facets, with agency composed of assertiveness and competence and communion

composed of warmth and morality (Abele & Hauke, 2019). However, agency and communion are more than just dimensions of people's self-descriptions – they also have implications for social functioning, health, and well-being (Helgeson, 1994). For example, agency is positively correlated with self-esteem (Abele et al., 2008a; Gebauer et al., 2013; Wojciszke et al., 2011), mastery- and achievement-related goals (Pöhlmann, 2001), life satisfaction (Saragovi et al., 2002), and psychological well-being (Helgeson, 1994). Communion is positively associated with secure attachment styles (Bartz & Lydon, 2004), affiliation, intimacy-related goals (Pöhlmann, 2001) and relationship well-being (Le et al., 2018). In general, communal individuals tend to experience personal and relational benefits, while agentic individuals experience autonomy and achievement-related benefits (Abele et al., 2016).

While there is overlap between women and men in these traits (Ruble et al., 2006), studies have shown that, on average, men are more likely to describe themselves using agentic attributes, such as dominant and competitive, whereas women tend to describe themselves using communal terms, such as dependent and sociable (Helgeson & Palladino, 2012; Siegler et al., 1979). This difference in self-construals and self-descriptions is in line with societal gender stereotypes (Deaux & LaFrance, 1998; Eagly et al., 2000), with agency related to the masculine stereotype and communion related to the feminine one (Abele & Wojciszke, 2007; Bem, 1974; Eagly, 1987; Spence et al., 1975). While the equating of stereotypical masculinity and femininity with agency/instrumentality and communion/expressiveness has been questioned and criticized (e.g., Pedhazur & Totenbaum, 1979), new evidence confirms this notion. In a study by Abele and Wojciszke (2007), 300 attributes were evaluated according to the degree to which they expressed competence versus morality, individualism versus collectivism, agency versus communion, and masculinity versus femininity. The results of a principal component analysis yielded a clear two-factorial solution, with agency representing the common core of dimensions like individualism, competence, intellectual functioning, and masculinity, and communion representing the common core of dimensions like collectivism, morality, social functioning and femininity (Abele & Wojciszke, 2007). Therefore, the concepts of agency and communion can be equated with the concepts of psychological masculinity and femininity on an operational level.

A great deal of research conducted in Western nations indicates that women and men are socialized to act in accordance with stereotypical gender roles: Females are encouraged to be nurturing and socially

connected, whereas males are encouraged to be independent and autonomous (Helgeson, 1994; Klaczynski et al., 2020; Martinez et al., 2019). In a recent systematic review of gendered parenting in US, Canada, Australia and Western Europe, it has been shown that parents respond differently to daughters and sons (Morawska, 2020). For example, parents use more emotional expressions with daughters (Fivush et al., 2000), but more power assertion and physical control with sons (Endendijk et al., 2013; for a systematic review see Morawska, 2020). Similarly, parents in Western societies prefer gender-typed toys for their children, with stereotypically feminine toys related to nurturance and care and stereotypically masculine toys related to aggression and action (Blakemore & Centers, 2005; Kollmayer et al., 2018a). Thus, the gendered self-concepts and self-descriptions of women and men may reflect characteristics that have been built through socialization mirroring societal expectations for men and women (Athenstaedt, 2003; Eagly et al., 2000; Klaczynski et al., 2020; Martinez et al., 2019).

However, gender differences in agentic traits have decreased over time, leading to a narrower gender gap (Ebert et al., 2014; Wilde & Diekman, 2005). This shift seems to be unilateral: Whilst women have been shown to include more agentic attributes in their self-descriptions, there seems to be no increase in men's communion (Donnelly & Twenge, 2017; Kite et al., 2008; Twenge, 1997). This shift reflects changes in society: With women's increased participation in the labour force, women have been encouraged and even required to develop and adopt agentic traits and behaviours (Donnelly & Twenge, 2017; Eagly et al., 2000). On the other hand, numerous studies have found that parents and peers are likely to disapprove of gender role violations in boys (e.g., Kane, 2006; Sirin et al., 2004), indicating little acceptance for men taking on communal traits and behaviour (Priess et al., 2009). Thus, the lack of change in men's self-descriptions may be due to social repercussions for men who display communal traits, such as being viewed as weak, less likable and even less hireable (Moss-Racusin et al., 2010; Van Grootel et al., 2018).

Gender role identity in adolescence

Although it has been shown that children reach peak rigidity in their endorsement of gender-stereotypical beliefs and attitudes in early childhood (by age 5–6) (Blakemore, 2003; Halim & Ruble, 2010), self-concepts seem to become increasingly gendered in adolescence. Studies

repeatedly show that, on average, adolescent girls report a more communal self-concept and endorse more communal goals than adolescent boys, whereas boys report a relatively agentic self-concept and pursue more agentic goals than girls (Block et al., 2018; Klaczynski et al., 2020; Ojanen et al., 2005; Skinner et al., 2019). According to *gender intensification theory* (Hill & Lynch, 1983), girls and boys develop increasingly differentiated gender role identities and behaviours across early adolescence due to increased pressure to conform to stereotypical gender roles. Alongside physical changes in adolescence, these conformity pressures may lead adolescents to adopt a more gendered self-concept as part of their identity, while cognitive development and gender-related experiences weaken their stereotypical beliefs and attitudes towards others (Klaczynski et al., 2020). However, studies investigating the intensification of gender role identities in adolescence have yielded heterogeneous results. In a longitudinal study with 6th, 7th and 8th graders, Galambos et al. (1990) reported that 6th grade boys were more likely than girls to endorse agentic items and 6th grade girls more likely than boys to endorse communal items on the BSRI. While gender differences in agency increased across 7th and 8th graders, gender differences in communion did not, providing insufficient evidence for intensification regarding communion across early adolescence. Another cross-sectional study with children used the Children's Sex Role Inventory (CSRI) and found evidence for gender intensification regarding communion but not agency (Boldizar, 1991). Wichstrøm (1999) found boys to endorse agentic traits slightly more and girls to score higher in communion, with no evidence for an intensification of these gender differences. Priess et al. (2009) did not find gender differences in agency and also no support for an intensification of gender role identity with respect to either agency or communion. Similarly, Block et al. (2018) found evidence that gender differences in self-perceived agency and communion were stable between the ages of 6 and 14 years. On the other hand, a new study with adolescents in the US showed results generally consistent with the gender identification hypothesis. Twelve and 15-year-old boys adopted more masculine characteristics than 9-year-old boys, whereas 15-year-old but not 12-year-old girls adopted more feminine characteristics than 9-year-old girls (Klaczynski et al., 2020).

All of the aforementioned studies rely on a quantitative measurement approach, using the BSRI (Bem, 1974) or similar sex role inventories (e.g., the CSRI; Boldizar, 1991). Scholars have raised the important issue of

whether self-ratings on sex role inventories reflect salient dimensions of the self (see Myers & Gonda, 1982). One main critique is that gender-typed self-descriptions are highly dependent on the format used to elicit self-ratings. Predetermined attributes could function as cues for participants' memory search and thus influence their answers, making certain attributes more salient – including attributes participants would not normally perceive as relevant for their self-description (Brinthaupt & Erwin, 1992; Cowan & Stewart, 1977; McGuire & McGuire, 1988). Scholars have argued that gender role identity 'must be defined in terms of the individual rather than [be bound to] an experimenter-imposed construction' (Blanchard-Fields et al., 1994, p. 452). Scholars also argue that using classic sex role inventories represents a limitation of studies investigating gender intensification, since other measures might be useful for examining how individuals differ in their gender role identity (Priess et al., 2009).

An alternative approach to measuring self-stereotyping regarding agency and communion is the spontaneous self-description method (McGuire & Padawer-Singer, 1976). The primary idea underlying this method is that instead of presenting participants with predetermined dimensions, they are allowed to openly name attributes that are salient and significant to them, unfiltered by researchers' pre-selection of attributes. Hence, participants describe themselves in their own words, and indices of agency and communion are derived afterwards. Existing findings on gender self-stereotyping using the spontaneous self-description method are heterogeneous. Some studies have confirmed the stereotypical gender gaps in agency and communion (Diehl et al., 2004), whereas others have found that women and men did not describe themselves in a stereotypical manner when an open-ended answering format was applied (Cowan & Stewart, 1977; Jackson, 1985; Uchronski, 2008; Wise & Joy, 1982). In one of the rare studies using an open-ended format with adolescents, McGuire and McGuire (1982) found that girls' self-conceptions were more communal than boys'. However, these authors did not examine the intensification of gender differences.

Present study

The purpose of the present research is to examine gender intensification in adolescents' gender role identities by applying the spontaneous self-description method. The present study investigates gender differences and gender intensification in adolescents at two levels.

First, at the individual level, we examine whether adolescents self-stereotype themselves with respect to agency and communion and whether older adolescents have more stereotypical gender role identities than younger adolescents. In accordance with studies indicating a narrower gender gap for agency than communion (Priess et al., 2009; Wichstrøm, 1999), we expect girls to name more communal attributes in their self-descriptions than boys and boys to name more agentic attributes in their self-descriptions than girls, but gender differences should be smaller for agency than for communion. Moreover, we expect the difference between agency and communion to be larger in boys' than in girls' self-descriptions. Regarding the intensification of gender role identity in adolescence, we do not have a directed hypothesis, since prior studies have yielded inconsistent results.

Second, at the attribute level, we investigate gender differences in the individual attributes adolescents use in their spontaneous self-descriptions. One strength of the spontaneous self-description method is the possibility to examine gender differences in the specific attributes that spontaneously come to girls' and boys' minds when describing themselves. We expect the attributes named more frequently by girls to be communal ones and the attributes named more frequently by boys to be agentic ones.

Methods

Participants

The study sample consisted of 3423 adolescents (1706 girls, $M_{\text{age}} = 12.41$, $SD_{\text{age}} = 0.99$; 1717 boys, $M_{\text{age}} = 12.52$, $SD_{\text{age}} = 1.02$, age-range 11–15) from Austrian lower secondary schools predominantly attended by children from middle SES families. The students were 6th ($n = 969$, $M_{\text{age}} = 11.37$, $SD_{\text{age}} = .580$), 7th ($n = 1180$, $M_{\text{age}} = 12.36$, $SD_{\text{age}} = .580$) and 8th ($n = 1274$, $M_{\text{age}} = 13.40$, $SD_{\text{age}} = .603$) graders. Among participants, 68.3% do not have a migration background, while 6.8% are first-generation immigrants, 15.2% are second-generation immigrants and 9.7% have a partial migration background, with one parent born in a foreign country. Precisely, among participants, 91.6% were born in Austria, 0.9% in Turkey, 0.7% in Germany, 0.6% in Serbia or Montenegro, 0.4% in Bosnia and Herzegovina, 0.2% in Poland, 0.2% in North Macedonia, 0.1% in Croatia, 0.1% in Slovakia and 5.1% in other countries (the remaining 1% of participants chose the option 'I do not know' concerning their place of birth). In general, the

participants are ethnically representative of Austrian students (Statistics Austria, 2015). Due to the heterogeneous ethnicity of the sample, adolescents' migration background was included as a control variable in the analysis testing the gender intensification hypothesis.

Procedure

The data was collected in 2011 in Vienna, Austria, as part of the REFLECT programme, a secondary school teacher training program funded by five Austrian federal ministries (see Kollmayer et al., 2019, 2020; Schultes et al., 2015). Teachers were recruited via phone and email and voluntarily participated in the data collection with their classes. The participating students answered an online questionnaire via Unipark (Questback GmbH, 2016) during one school lesson. Written informed consent for students' participation was obtained from their parents in advance, and students could decide for themselves whether they wanted to participate in the data collection. Anonymity and confidentiality of their data were guaranteed.

Measures

At the beginning of the online survey, participants were asked to describe themselves as follows: 'How would you describe yourself to someone who you do not know yet? Please write down three attributes that describe you best. Please do not describe how you look but describe your personality (an example attribute: honest).' Participants described themselves in an open-ended format by writing down three attributes. The remaining questionnaire included items on demographics and various other topics such as motivation, class climate, and attitudes towards particular occupations. The present study is based solely on the spontaneous self-description item.

Data preparation

First, all misspelled attributes were corrected. We deleted non-existing words (e.g., 'ihjh', <1%) and negations (e.g., 'not bad') as well as attributes with certain adverbs of degree (e.g., 'somewhat' or 'slightly' in front of an adjective; 2.5% of statements), as their meaning was made ambiguous and therefore uncodable. Similarly, the attribute 'geil' was deleted as this

word has several meanings in adolescent slang in Austria (0.07%). When adverbs of degree did not change the meaning of the attribute, only the adverbs were deleted (e.g., 'very bad', 'quite bad' were corrected to 'bad'; 1% of statements). We included only the first three named attributes in further analyses. When participants wrote down phrases or short sentences to describe themselves (<1% of statements), two researchers synthesized them into one corresponding adjective or category (e.g., 'love to help' and 'for me it is important to help' were replaced with 'helpful'). All descriptions of one's outer appearance (e.g., 'I have brown hair', 'I wear glasses', etc.) were deleted from the dataset, as participants were specifically instructed to describe their personality and not their physical appearance (1.8% of statements). Participants who reported statements related to their interest in video games or TV (e.g., 'I like to watch TV', 'Fan of Need for Speed', etc.) were categorized into 'TV and games', and those who reported phrases related to computers (e.g., 'Computer freak' or 'I like computers', etc.) were grouped into the category 'computers'. Similarly, the category 'food' comprised self-descriptions related to food (e.g., 'I like pizza', 'I eat fast food'). Attributes reflecting negative attitudes towards school or poor school performance were categorized as 'not good in school' (e.g., 'I am not so good in school', 'I hate homework'). In contrast, the category 'good in school' comprised statements related to good performance in school or in a specific school subject. Statements related to soccer (e.g., 'I like to play soccer', 'I am a good soccer player', etc.) formed the category 'soccer', while those related to other sports (e.g., 'I play tennis', 'I like climbing', etc.) were merged into the category 'other sports'. A complete list of all categories including example statements can be found in the supplementary information (Supplementary file 1, Table 1). In a final step, the first, second, third and last author merged attributes and attribute categories when they were actually synonyms (e.g., 'talkative' was merged with 'communicative').

Coding of agency and communion

Once data preparation was completed, the second and last author independently coded all 247 attributes in terms of agency and communion. To rate the attributes as either agentic or communal, the coders relied on a definition and list of agentic and communal words used in a previous study on spontaneous self-representation in adults (see Appendices A and B in Diehl et al., 2004). Attributes that could not be coded as either

agentic or communal were coded as neutral. The coders were blind to participants' gender. The raters achieved substantial inter-coder agreement ($\kappa = 0.65$; Landis & Koch, 1977). In a final step, the coders discussed all equivocal attributes and agreed on the final coding for each attribute.

Results

Descriptive analysis

Participants in both groups named a total of 9840 attributes in their self-descriptions. Of these, 50.4% of statements were made by girls (4963 attributes) and 49.6% were made by boys (4877 attributes). On average, students named 2.88 attributes. Following data preparation, 247 different attributes were included in the analyses. The complete list of attributes can be found in the supplementary information (Supplementary file 1, Table 2). Out of the 247 attributes listed, 30.8% (76) were coded as agentic, 29.1% (72) were coded as communal, and 40.1% (99) were coded as neutral. The most frequently named attributes by girls and boys (>1%) and their respective codes are presented in Table 1.

Individual level: Self-stereotyping and gender intensification

To explore gender differences and gender intensification in self-stereotyping regarding agency and communion, we conducted three separate analyses of variance (ANOVA) with gender, age and migration background as between-

Table 1. Absolute and relative frequencies of attributes named by girls and boys (> 1%).

Attribute	Girls		Attribute	Boys	
	Frequency	Relative frequency		Frequency	Relative frequency
Nice (c)	702	14.1%	Nice (c)	681	14.0%
Helpful (c)	684	13.8%	Funny (n)	643	13.2%
Funny (n)	611	12.3%	Honest (c)	493	10.1%
Honest (c)	565	11.4%	Helpful (c)	446	9.1%
Friendly (c)	344	6.9%	Sporty (a)	317	6.5%
Cheerful (c)	130	2.6%	Friendly (c)	258	5.3%
Sporty (a)	125	2.5%	Intelligent (a)	171	3.5%
Crazy (n)	106	2.1%	Cool (n)	133	2.7%
Polite (c)	101	2.0%	Polite (c)	91	1.9%
Intelligent (a)	77	1.6%	Cheerful (c)	70	1.4%
Animal-loving (c)	70	1.4%			
Shy (c)	66	1.3%			
Creative (a)	56	1.1%			
Kind (c)	52	1.0%			

Code abbreviations: (a) – agency, (c) – communion, (n) – neutral. Relative frequency is the percentage of participants in the respective sub-sample who named each attribute.

subject factors. Number of agentic and communal words named served as the dependent variables. In addition, the difference between the number of agentic and communal words named by boys and girls in their self-descriptions was calculated. Positive scores in this calculation (ranging from 1 to 3) indicate a predominance of agentic attributes over communal attributes in one's self-description. Negative scores (range -1 to -3) indicate a predominance of communal attributes over agentic attributes, while scores of zero represent a balanced use of agentic and communal attributes in one's self-description.

Agency

Table 2 presents the means and standard deviations of named agentic attributes by gender and age. The results showed a significant main effect of gender, $F(1, 3383) = 5.60, p < .05, \eta^2_p = .002, d = .23, CI [.02, .21]$, with boys ($M = 0.51, SD = 0.68$) naming more agentic words than girls ($M = 0.36, SD = 0.60$). There were no significant main effects of age, $F(4, 3383) < 1, p > .05$, or migration background, $F(3, 3383) = 2.22, p > .05$. All interaction effects were also non-significant, all $ps > .05$.

Communion

The means and standard deviations for communion by gender and age are also presented in Table 2. The univariate ANOVA showed a significant main effect of gender, $F(1, 3383) = 32.19, p < .001$,

Table 2. Means and standard deviations for agency, communion and difference between agentic and communal attributes named by gender and age.

Age	Boys			Girls		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
Agency						
11	316	.484	.639	354	.316	.539
12	517	.489	.687	556	.362	.610
13	593	.528	.690	568	.389	.622
14	254	.532	.698	201	.363	.642
15	37	.351	.484	27	.333	.679
Communion						
11	316	1.399	.956	354	1.836	.904
12	517	1.486	.918	556	1.820	.888
13	593	1.504	.919	568	1.933	.874
14	254	1.532	.914	201	2.065	.895
15	37	1.541	.960	27	2.185	.962
Difference						
11	316	-.915	1.383	354	-1.520	1.278
12	517	-.996	1.370	556	-1.459	1.308
13	593	-.976	1.396	568	-1.544	1.338
14	254	-1.000	1.383	201	-1.702	1.386
15	37	-1.189	1.244	27	-1.852	1.512

$\eta^2_p = .009$, $d = .46$, CI [.25, .51], with girls ($M = 1.90$, $SD = 0.89$) naming more communal words than boys ($M = 1.48$, $SD = 0.93$). There was also a significant main effect of age, $F(4, 33383) = 4.71$, $p < .001$, $\eta^2_p = .006$, indicating an increase in communion in older adolescents. Post hoc tests showed that adolescents aged 14 ($M = 1.77$, $SD = .94$) describe themselves as more communal than adolescents aged 11 ($M = 1.63$, $SD = .95$), $d = .15$, CI [.01, .46], and 12 ($M = 1.66$, $SD = .92$), $d = .12$, CI [.03, .40]. The mean differences between other age groups were not significant. The results showed a significant effect of migration background, $F(3, 3383) = 3.93$, $p < .03$, $\eta^2_p = .003$. Post-hoc tests showed significant differences between second-generation immigrants and students with no migration background, with second-generation immigrants ($M = 1.77$, $SD = .93$) describing themselves as more communal than adolescents without a migration background ($M = 1.67$, $SD = .92$), $d = .11$, CI [.03, .46]. Neither two-way nor three-way interactions between factors were significant, all $ps > .05$.

Difference between agentic and communal attributes

The means and standard deviations for the difference between agency and communion by gender and age can be found in [Table 2](#). The univariate ANOVA showed a significant effect of gender, $F(1, 3383) = 24.30$, $p < .001$, $\eta^2_p = .007$, $d = .41$, CI [.30, .69]. The results indicated a predominance of communal over agentic words in both genders, with girls ($M = -1.53$, $SD = 1.33$) naming even more communal than agentic words in their self-descriptions compared to boys ($M = -0.98$, $SD = 1.38$). The results also showed a significant effect of age, $F(4, 3383) = 2.57$, $p < .05$, $\eta^2_p = .003$. Post-hoc tests showed a stronger predominance of communal over agentic attributes among older adolescents (aged 13 ($M = -1.25$, $SD = 1.40$), $d = .01$, CI [.01, .36], 14 ($M = -1.31$, $SD = 1.43$), $d = .05$, CI [.03, .43], and 15 ($M = -1.47$, $SD = 1.39$), $d = .17$, CI [.01, .84]) compared to adolescents aged 12 ($M = -1.24$, $SD = 1.36$). Mean differences between other age groups were not significant. The main effect of migration background was also significant, $F(3, 3383) = 3.94$, $p < .01$, $\eta^2_p = .003$. Post-hoc tests revealed a stronger predominance of communal over agentic words in self-descriptions of adolescents who are first-generation ($M = -1.46$, $SD = 1.33$), $d = .18$, CI [.10, .56] and second-generation ($M = -1.39$, $SD = 1.36$), $d = .12$, CI [.09, .57] immigrants compared to adolescents without a migration background ($M = -1.22$, $SD = 1.39$). All interaction effects between factors were insignificant, all $ps > .05$.

Attribute level: Gender differences in named attributes

Configural frequency analysis (CFA; cf. Lienert, 1969; Von Eye, 1990) was used to analyse gender differences at the attribute level. This multivariate approach allows for analysing cross-classified, categorical data used in person-oriented developmental research (Von Eye et al., 2008). We applied a two-sample CFA to identify gender differences in single attributes named in adolescents' spontaneous self-descriptions. This type of CFA allows researchers to compare two independent groups of individuals and identify discrimination types, that is, attributes with higher frequencies in one group than would be expected from the base model (and thus fewer cases than expected in the other group), referred to as types and antitypes. Thus, the CFA is an exploratory analysis whose goal is to identify stand-out cells rather than confirm an existing model (Von Eye et al., 2008). The analysis was carried out using the CFA program developed by Von Eye (2000). Only attributes that were named more than 10 times were included in the analysis. For 86 attributes that met this criteria significance of the overall model (sampling distribution) was assessed with a χ^2 -test, followed by the identification of potential types and antitypes with Bonferroni-adjusted alpha significance tests.

As can be seen in Table 3, significant gender differences were found in 15 out of 86 attributes, and thus in only 17.4% of the attributes named more than 10 times. The results of the CFA showed that significantly more girls than boys spontaneously described themselves as 'helpful', 'cheerful', 'crazy', 'animal-loving', 'sensitive' and 'communicative'. Five of these attributes were communal, while one was neutral. Conversely, significantly more boys than girls included the following attributes in their self-descriptions: 'sporty', 'intelligent', 'cool', 'strong', 'computers' and 'not good in school'. In addition, more boys than girls described themselves using terms related to 'soccer', 'TV and games' and 'food'. Of these attributes, three were agentic and six were neutral.

Discussion

Gender intensification theory posits that, due to social pressure, adolescents develop increasingly differentiated gender role identities (Hill & Lynch, 1983). The central goal of the present study was to examine gender role identity and gender intensification in adolescents by applying the spontaneous self-description method. Our first research question addressed whether boys and girls self-stereotype themselves, and

Table 3. Frequencies of boys and girls naming attributes for which significant differences were found.

Attribute	Attributes named more frequently by boys			
	Boys (f)	Girls (f)	χ^2 *	w
Sporty (a)	317	125	93.623	.46
Cool (n)	133	24	79.377	.71
Intelligent (a)	171	77	39.168	.40
Soccer (n)	37	2	30.951	.89
Computers (n)	22	1	18.130	.89
Food (n)	22	1	18.130	.89
TV and games (n)	24	2	17.740	.83
Strong (a)	32	6	17.387	.68
Not good in school (n)	19	1	15.073	.87
Attributes named more frequently by girls				
Attribute	Boys (f)	Girls (f)	χ^2 *	w
Helpful (c)	446	684	47.710	.21
Crazy (n)	30	106	39.423	.54
Animal-loving (c)	13	70	36.227	.66
Sensitive (c)	7	38	19.086	.65
Cheerful (c)	70	130	15.791	.28
Communicative (c)	1	17	12.020	.82

Code abbreviations: (a) – agency, (c) – communion, (n) – neutral, * all $ps < 0.01$, Cohen's w – index of effect size for the goodness of fit test.

whether they become more stereotypical in their gender role identities with respect to agency and communion over the course of adolescence. Our results show that girls used more communal words in their self-descriptions than boys, while boys used more agentic terms in their self-descriptions than girls. These findings are consistent with previous studies showing stereotypical gender differences in agency and communion (Block et al., 2018; Klaczynski et al., 2020; Ojanen et al., 2005; Priess et al., 2009; Skinner et al., 2019; Wichstrøm, 1999). Thus, one could argue that adolescents still describe themselves in stereotypically gendered ways when they are allowed to choose the dimensions that are salient and significant to them. However, the effect sizes for gender differences in both agency and communion are moderate to small, and even smaller for agency than for communion. These findings are in line with Hyde's (2005) gender similarities hypothesis, which states that, in terms of effect sizes, most psychological gender differences are small or close to zero. Moreover, smaller effect sizes for agency than for communion might to some extent indicate a narrowing of the gender gap in agency, as shown in previous studies (Priess et al., 2009; Wichstrøm, 1999). Similarly, our results confirm our expectation that the difference between agentic and communal words will be larger in boys' than in girls' self-descriptions. However, even boys, on average, included more communal than agentic attributes in their self-descriptions. Moreover, their average

difference score was closer to zero than to a positive number, indicating a balanced use of agentic and communal attributes in boys' self-descriptions rather than a clear predominance of agentic attributes over communal attributes. This might indicate a narrowing of the gender gap for communion as well. Younger generations of boys may feel more free to adopt communal attributes in their self-descriptions, despite stronger disapproval of gender role violations in boys (e.g., Kane, 2006; Sirin et al., 2004), as well as higher gender conformity pressure among boys than girls reported in previous studies (Egan & Perry, 2001; Nielson et al., 2020).

Although previous studies suggested that the importance of agency might increase across adolescence (e.g., Chen et al., 2018), our results did not support this notion, instead showing equal endorsement of agentic attributes in self-descriptions by adolescents of all ages. One explanation for this finding could be that instrumental traits and behaviours are uniformly fostered from early to middle adolescence. In contrast, communal attributes were named more often in students' self-descriptions at age 14 than at the onset of adolescence (age 11 and 12). Supporting these findings, the predominance of communal over agentic attributes in self-descriptions was stronger among older (13-, 14- and 15-year-old) compared to younger (12-year-old) adolescents. This is not surprising given the social focus of adolescents' lives. Individuals with communal traits are more likely to form friendships or relationships with others and are more liked by peers (Chen et al., 2018) and teachers (Heyder & Kessels, 2013). Moreover, communion has been shown to predict positive school functioning and self-esteem for both boys and girls (Skinner et al., 2019), as well as positive school outcomes (Hoffman et al., 2004). Thus, greater endorsement of communal traits as adolescence proceeds is in line with the increasing importance of peers and social relationships during this period of life (Brown & Larson, 2009; Ryan, 2001), as well as with the school context, which is a major life domain in adolescence (Eccles & Roeser, 2011; Tian et al., 2014). The general prevalence of communion over agency in participants' answers is in line with other studies of adolescents (McCabe & Dinh, 2016; Ojanen et al., 2005), and indicates a higher importance of communion during this period than later in life (Chen et al., 2018; Gebauer et al., 2013).

Our findings failed to confirm the gender intensification hypothesis, as there was no significant interaction effect of gender and age; rather, agency and communion seem to increase in parallel fashion in both boys and girls from age 11 to 15 (cf. Block et al., 2018; Priess et al., 2009;

Wichstrøm, 1999). One possible explanation for this result is that adolescents have become more comfortable defining and describing themselves with both agentic and communal attributes (Priess et al., 2009). That is not surprising given the aforementioned benefits of communion in school and social life, but also the importance of agentic traits for success in society in general (Abele et al., 2016). Gender roles may be changing, and younger generations of adolescents may not experience the same socialization pressures to conform to stereotypical gender roles, at least up until age 15. On the other hand, it is possible that social pressures to conform with stereotypical gender roles still exist, but newer generations of men and women are more aware of gender stereotypes and more reluctant to engage in gender roles, traits and behaviours (Helgeson, 2015), consequently deliberately disassociating themselves from characteristics linked to traditional conceptions of masculinity and femininity (Donnelly & Twenge, 2017). The interaction effects of migration background, gender and age were insignificant for both agency and communion as well as the difference between them, indicating the invariability of the results depending on adolescents' migration background. However, results showed a higher use of communal over agentic words in self-descriptions of adolescents who are first- and second-generation immigrants compared to adolescents without any migration background. This could potentially be explained by cultural influences, as adolescents with migration background mainly come from cultures that are more collectivistic, where communal traits are more valued and emphasized.

When examining gender differences in single attributes relevant for girls' and boys' self-descriptions, we found significant gender differences in only 15 out of 86 attributes named more than 10 times, indicating that 82.6% of attributes are named equally often by boys and girls. None of the attributes named more often by girls were agentic, and boys did not outnumber girls in the frequency of any communal attribute named. However, a small degree of gender differences supports the assumption that the similarities between genders in adolescents' self-descriptions are greater than the differences, which again supports Hyde's (2005) gender similarities hypothesis. Even though girls' self-descriptions included attributes referring to their relationships with other people (e.g., helpful, sensitive, communicative) or other living beings (e.g., animals), and boys described themselves more individualistically (e.g., cool, intelligent) or in relation to objects and interests more frequently than girls did, one cannot ignore the fact that gender differences emerged in only 17.4%

of the named attributes. Moreover, more than one-third of the attributes named by adolescents in our study were neutral, indicating that adolescent boys and girls not only describe themselves similarly (Wise & Joy, 1982), but also in a not particularly stereotypical way when an open-ended format is used (Cowan & Stewart, 1977; Jackson, 1985). This pattern is in line with a recent meta-analysis showing declines in the use of expressive and instrumental traits in students' self-descriptions (Donnelly & Twenge, 2017). The authors argue that these trends could indicate a movement towards a post-gender culture (Donnelly & Twenge, 2017; Gerson, 2010; McDowell, 2012).

Some of the interests mentioned more often by boys were coded as neutral rather than agentic, even though they may be seen as stereotypically masculine. In Europe, soccer is a typical boys' sport (Chalabaev et al., 2013), and computers and gaming are seen as typical boys' interests (Terlecki et al., 2011). This indicates that stereotypical masculinity is defined not only in terms of agentic traits but also in terms of specific interests and behaviours. This finding is in line with Priess et al. (2009), who called into question what exactly is being measured by sex role inventories and suggested considering whether agency remains synonymous with masculinity. It further demonstrates the potential of using spontaneous self-descriptions to gain new insights into gender stereotypes in adolescents. This approach can reveal the most relevant aspects of one's self-concept, unfiltered by researchers' pre-selection. Especially in adolescent samples, this bottom-up approach to assessing self-stereotyping might be useful to ensure that the attributes examined are salient to adolescents in terms of language and significance.

Limitations and future directions

The first limitation of the present study concerns the cross-sectional nature of the reported data, which limits our ability to draw developmental conclusions. In order to detect changes in gender role identity at both the group and individual level, the spontaneous self-description method should be employed in a longitudinal design. The second limitation relates to the self-description instructions participants received. In light of their age and lack of experience with psychological testing, the participants were provided with a concrete example of a personal trait ('honest') in the pre-assessment instructions. Although this example was not the most frequently named attribute, it was named in the self-

descriptions. However, while this instruction indisputably could have led participants to use the attribute 'honest' more often, it is not probable that this example led them to name more communal than agentic words in general. The attribute 'honest' falls within the morality facet of communion, whereas other frequently named communal words in our study were related to warmth, e.g., 'nice', 'helpful', 'friendly', 'polite' and 'animal-loving' (Abele & Hauke, 2019; Abele et al., 2016). Third, the students were asked to describe themselves using a maximum of three attributes, which might restrict the scope of our data. However, this approach forced the students to name the attributes that were most salient for their self-concepts, leading to more relevant results. Future research should combine both quantitative and qualitative measures to examine the effect of the method used on gender intensification. Fourth, data analysed in this study was already collected in 2011. However, our results are in line with results of recent studies on gender intensification (e.g., Block et al., 2018) and gender stereotypes in men's and women's self-descriptions (Donnelly & Twenge, 2017). Finally, this study focuses only on self-descriptions in terms of agency and communion, not taking into account other facets of gender identity. Future studies might investigate gender intensification by assessing gender identity using other measures, such as overall felt gender typicality (see Egan & Perry, 2001).

Conclusion

The results of the present study contribute to the body of research on gender role identity and gender intensification in adolescents using cross-sectional data collected with the spontaneous self-description method. The results provide evidence for small gender differences in self-attributed agency and communion, but not for gender intensification in early and middle adolescence. Although it may be premature to conclude that recent adolescent cohorts represent a new generation moving towards a post-gender culture, the lack of support for gender intensification across adolescence, the small percentage of attributes for which gender differences were found, and the large number of neutral attributes used by both boys and girls to describe themselves indicate that some changes may be afoot.

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ORCID

Selma Korlat  <http://orcid.org/0000-0001-5719-5222>
Nora Maria Foerst  <http://orcid.org/0000-0001-8289-6549>
Marie-Therese Schultes  <http://orcid.org/0000-0002-1593-3247>
Barbara Schober  <http://orcid.org/0000-0002-5754-8865>
Christiane Spiel  <http://orcid.org/0000-0002-7082-4879>
Marlene Kollmayer  <http://orcid.org/0000-0001-8239-5330>

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