The importance of being gifted: Stages of gifted identity development, their correlates and predictors

Tanja Gabriele Baudson & Johanna Fee Ziemes

To cite this article: Tanja Gabriele Baudson & Johanna Fee Ziemes (2016) The importance of being gifted: Stages of gifted identity development, their correlates and predictors, Gifted and Talented International, 31:1, 19-32, DOI: 10.1080/15332276.2016.1194675

To link to this article: https://doi.org/10.1080/15332276.2016.1194675

Published online: 15 Sep 2016.

Submit your article to this journal

Article views: 2249

View related articles

View Crossmark data

Citing articles: 2 View citing articles
The importance of being gifted: Stages of gifted identity development, their correlates and predictors
Tanja Gabriele Baudson a and Johanna Fee Ziemes b

a Faculty of Educational Sciences, Institute of Psychology, Educational and Psychological Assessment, University of Duisburg-Essen, Essen, Germany; b Faculty of Educational Sciences, Institute of Pedagogy, Educational Research and Schooling, University of Duisburg-Essen, Essen, Germany

ABSTRACT
Identity formation is particularly challenging for stigmatized minorities. The minority stress model (MSM) posits that both negative stereotypes and their internalization represent stressors. There is evidence that this applies to the gifted, too. However, their status is ambiguous, given that both negative and positive stereotypes exist. Furthermore, individual wellbeing also hinges on one’s identity stage, as outlined in the Cass identity model (CIM).

The CIM was applied to gifted identity development in a survey of 742 high-IQ society members (16–79 years). Identity stages could be reliably and validly assessed with a new measure and were related to adjustment and coping as expected. Latent class analysis revealed four groups, which resembled the CIM, but with a few notable exceptions. Ordinal-logistic regression showed that years since first suspicion and since diagnosis of giftedness predicted group membership. In sum, identity development in the gifted examined here shows similarities with the CIM stages (which are differentially related to wellbeing and feelings toward one’s own giftedness) but has its own specific characteristics, too.

KEYWORDS
Cass identity model; gifted identity; high-IQ societies; identity development; Mensa; minority stress

The importance of being gifted
Minorities face particular challenges in their identity formation when the majority identity is considered the normative model and anything else deviant. Both prejudices and discriminations targeted at a person’s minority status and the internalization of these negative stereotypes can cause psychosocial stress (Meyer, 2003). Individual vulnerability and available coping mechanisms influence the extent of minority individuals’ stress experience. However, the extent of adverse psychosocial outcomes also hinges on the progress of one’s minority identity development. People struggling to accept their minority status and everything related to it more likely suffer psychosocial stress than those who have accepted both themselves and others. Cass (1979, 1984) was the first to describe this developmental process for gay men. Similar mechanisms of social identity construction have since been observed in other minorities and marginalized groups, too (e.g., based on ethnicity, race, or gender; Frable, 1997), and meta-analytic evidence suggests that perceived discrimination significantly affects health (Pascoe & Smart Richman, 2009). However, to date, the Cass identity model (CIM) has never been applied to gifted people, who represent an invisible minority, too. This is surprising, given research findings suggesting that the gifted also may experience particular stressors due to their minority status (e.g., Neihart, 1999). The resulting stress experience may lead to feelings of stigmatization (“stigma of giftedness”; Coleman & Cross, 1988), eventually impairing harmonious development (e.g., Heller, 2005).

One important difference between the gifted and other minorities is that “gifted” is not only negatively connoted (unlike, e.g., homosexuality). In fact, there is evidence for positive and negative stereotyping of the gifted. Whereas research findings on actual differences between the two groups support a positive image of the gifted, people’s subjective theories intertwine high competence with socioemotional difficulties (e.g., Baudson, 2016; Baudson & Preckel, 2013, 2016; Preckel, Baudson, Krolak-Schwerdt, & Glock, 2015). This negative image may thus influence gifted people’s identity development, and the “stigma of giftedness”
mentioned above is possibly a result of such “mythconceptions.”

Theoretical foundations

In the following, the theoretical building blocks of our study will be outlined: first, the overarching minority stress model (MSM), comprising both the harmony/disharmony hypothesis as environmental gifted prejudices (“distal” stressor) and the stigma of giftedness/“giftedness negativity,” the internalization of these prejudices (“proximal” stressor). Gifted individuals who have learned to live up to their own selves in a majority-dominated world are likely less affected by these prejudices. The developmental trajectory leading there has been outlined in the CIM (Cass, 1979, 1984), which posits that minority individuals develop toward integration, resulting in harmonious self- and other-acceptance.

Minority stress model

The MSM is based on the well-founded assumption that stressors increase the probability of psychosocial maladjustment. Meyer (2003) distinguished (1) general stressors affecting everyone; (2) distal minority stressors (e.g., prejudice against minorities) representing a minority-specific “background”; (3) proximal minority stressors as “internalized” distal minority stressors (e.g., internalized homophobia). Coping buffers the effects of these stressors; for minorities, other minority members’ support is especially important (Cass, 1979).

Distal stressors: Harmony/disharmony hypothesis

Society’s attitudes, prejudices, and stereotypes of specific groups represent “objective” environmental conditions for both minority and majority members (Crocker, Major, & Steele, 1998). Gifted stereotypes comprise two dimensions of interpersonal perception, which focus on ability-related and socioemotional aspects of a person. This distinction has a long tradition and has been named, for example, the “duality of human existence” (Bakan, 1966), “agency and community” in personality research, or “warmth and competence” in social psychology (e.g., Cuddy, Fiske, & Glick, 2008; see Abele & Wojciszke, 2007; for further terms for this fundamental distinction). In the following, we will refer to “warmth vs. competence,” which is commonly used in the context of interpersonal perception.

Because scientific and lay definitions agree that high intellectual competence is characteristic to giftedness (Sternberg & Davidson, 2005), the only possible variation lies in the socioemotional dimension, resulting in two stereotypes. In addition to high intellectual ability, the “harmony hypothesis” ascribes high (or at least equal) social and emotional abilities to the gifted, whereas the “disharmony” hypothesis ascribes lower social skills and greater emotional vulnerability (Mönks, 1963). Recent research has identified the latter negative stereotype in teachers, using both explicit and implicit methods, and the general population. When presented with vignettes about gifted versus average-ability students, teachers rate the gifted children as more open to experience, more intelligent, and more motivated, but also less agreeable, less emotionally stable, more introverted, less prosocial, and more maladjusted (Baudson & Preckel, 2013; Baudson & Preckel, 2016). The association between negative behavior and giftedness was also shown in a study using the Implicit Association Test, particularly for boys (Preckel et al., 2015). A recent latent-class analysis of a representative German adult sample (Baudson, 2016) revealed that two thirds of the respondents saw the gifted as more intelligent and achieving at high levels, but also as difficult in social interactions and more prone to emotional issues. However, this study also revealed that one third had a realistic image of the gifted, ascribing them higher intelligence and achievement, but similar social and emotional adjustment levels and no general superiority. Despite this encouraging latter result, research rather suggests a disharmonious image of the gifted, at least in Germany.

As identity formation is based on others’ feedback (e.g., Stryker, 2001), reactions and expectations deriving from the above-mentioned stereotypes can be assumed to affect development. Individuals must therefore decide which aspects of these stereotypes to adopt, which is particularly difficult with ambiguous stereotypes such as giftedness, because they
result in contradictory expectations. Research in social perception posits that whereas one’s ingroup is usually rated positively on both the warmth and competence dimension, outgroup members are conceded high values on one dimension at the maximum (e.g., Cuddy et al., 2008). This means that from the point of view of an average-ability person, high ability will usually be perceived as incompatible with high social abilities (which, in turn, is linked to friendships, which play a particularly important role in adolescence). In turn, if a gifted person is perceived as high in warmth, she or he runs the risk to be perceived as somewhat less competent also. Thus it is difficult for a gifted individual to “have it all,” at least in non-gifted persons’ perceptions.

Empirical findings, based mostly on children and adolescents, rather disconfirm the disharmony hypothesis. The gifted are superior on characteristics relating to their high intellectual ability (achievement, achievement motivation, academic self-concept, or adaptive perfectionism, etc.), while exhibiting similar (sometimes slightly higher) levels of psychosocial adjustment (see Preckel & Vock, 2013, for an overview).

Proximal stressors: Stigma of giftedness

According to the MSM, proximal stressors result from internalization of distal stressors. Negative prejudices against the gifted may thus result in an “internalized giftedness negativity,” in a similar vein as the construct of “internalized homonegativity” (Meyer, 2003). The stigma of giftedness exemplifies its adverse consequences. Coleman and Cross (1988) posited that like everyone, gifted individuals want interactions that conform to the majority norm. Yet once they notice they belong to the social category “gifted” with all its stereotypes (which, more often than not, are negative), they may behave differently, based on the others’ presumed expectations. This distorts previously ordinary interactions to fit the stereotype, preventing the “normality” they desire. While in the Coleman and Cross study (1988), few gifted students perceived themselves as different, most believed that others perceive them as different due to their giftedness. A related coping strategy is, for example, to camouflage one’s ability to conform to anti-intellectual norms by claiming that a test was difficult or asking stupid questions (see Cross, Coleman, & Terhaar-Yonkers, 2014, for strategies used by gifted adolescents). In contrast, Manor-Bullock, Look, and Dixon (1995) found that two thirds of their high school sample perceived themselves as socially different and thought others perceived them as intellectually different. Thus, evidence is yet mixed.

Developmental trajectories: The CIM

The CIM (Cass, 1979, 1984) posits that minorities (e.g., the homosexuals she examined) face specific challenges in their identity formation. Their developmental trajectory implies an identity change: Starting as presumed (“normal”) heterosexuals, homosexuals by and by become aware that they differ from the norm (= self-perception), ensuing behavioral changes increasingly in line with the person’s actual homosexual identity (= other-perception), ideally resulting in an “integrated” identity eventually.

The CIM starts off with self- and other-perceptions as a “normal” majority member, followed by six identity stages (Cass, 1979, 1984; Figure 1): (1) confusion, becoming aware one might be a minority member; (2) comparison, including feeling different and alienated; (3) tolerance, increasing acceptance of one’s minority status while maintaining a public majority identity, rarely disclosing one’s private minority identity to majority members; (4) acceptance, growing acceptance of one’s minority status, yet keeping up one’s majority appearances when deemed pertinent; (5) pride, where the minority is extremely valued, at the expense of the discredited majority, and (6) integration, characterized by a harmonious congruence of the individual’s feelings and behaviors and his or her minority identity. While earlier stages are characterized by uncertainty and incongruence, later stages (especially the last) entail psychosocial adjustment and adaptive coping. Although minority identity development may

---

1This discrepancy is specific to social aspects. Regarding intellect, gifted adolescents perceived themselves (correctly) as different and assumed others to do so, too (Cross, Coleman, & Stewart, 1993).
imply multiple identities and does not necessarily proceed in the linear way the model suggests, the CIM can still be considered a useful framework today (Kenneady & Oswalt, 2014).

**Applying MSM and CIM to the gifted**

In scientific and lay theories, the gifted are a minority (Sternberg & Zhang, 1995). Yet whether they represent a stigmatized minority like other marginalized groups (e.g., Frable, 1997) is a separate question. Unlike lesbian, gay, bisexual, and transgender (LGBT) individuals bearing the consequences of minority stress (Meyer, 2003), the gifted are not more but comparably prone to mental disorders as average-ability persons (Martin, Burns, & Schonlau, 2010). More recent LGBT research suggests further differentiation, as this group may not be uniformly at risk for psychosocial maladjustment (e.g., Mayock, Bryan, Carr, & Kitching, 2010). This is likely true for the gifted as well, especially in the light of the ambiguous gifted stereotype. Whether the majority norm is “harmonious” or “disharmonious” is therefore unclear (though empirical findings suggest a greater prevalence of the disharmonious gifted stereotype; Baudson, 2016). A gifted achiever should experience less stress due to less friction with the norms of an achievement-oriented society, whereas differing subgroup-specific norms may increase her stress. Being in line with “harmonious” expectations may therefore counterbalance high achiever’s stress deriving from the “disharmonious” stereotype, depending on which norm they accept for themselves, and vice versa. Clearly, giftedness overall is much less stigmatized than, for instance, homosexuality, which was still legally prosecuted not long ago; also, stigmatization of giftedness may depend on an individual’s age and context, whereas homosexual individuals are more likely to be discriminated against throughout their lives. Nevertheless, one must consider that two in three persons likely ascribe social

---

2This is also conceivable for “disharmonious” gifted individuals in line with societal expectations like the socioemotionally maladjusted geek (Baudson, 2016).

3The authors thank an anonymous reviewer (Reviewer 2) for pointing this out.
and emotional issues (i.e., mental illness) to gifted individuals, which is a clearly negative stereotype. We therefore think that there are enough similarities justifying an application of the CIM to gifted minority identity development.

Identity research in the gifted has focused mostly on adolescents, likely because identity development is their crucial developmental task. Assumptions that gifted individuals feel particularly “different” must therefore be put into perspective, as this is likely the case for most adolescents regardless of ability. However, we know little about how gifted identity development continues into adulthood and about the predictors of positive development toward integration of one’s minority status.

Research questions
Based on these theoretical approaches, three questions arise: (1) Are gifted individuals subject to minority stress?; (2) Do the gifted face similar issues in their identity development such that the CIM can be meaningfully applied to the gifted?; and (3) What are the predictors of positive identities? We first adapted existing identity measures for other minorities to giftedness. The resulting inventory was validated against measures of psychosocial wellbeing and coping. We then performed a latent class analysis to identify “types” corresponding to the different developmental stages. The third and final step was to sequence the resulting classes in line with the CIM and to predict class membership by (1) years since diagnosis as gifted and (2) years since others had first suspected the person’s giftedness, using ordinal logistic regression. We chose time-related variables to counterbalance the problem of cross-sectional data, thus hoping to obtain some first insights into development.

Method
Sample
Our online survey, which focused mainly on older adolescents and gifted adults, was conducted in collaboration with the high-IQ society Mensa in Germany e. V., whose members score at least two standard deviations above the mean in a standardized IQ test. Of the 1,543 persons clicking the link, about one half inspected the welcome page only. After excluding nonrespondents, four individuals under 16, who were not part of the main target group (the youngest being 12 years old), and participants with an IQ under 130, 742 participants remained (51.2% male, 96.9% German/Austrian, IQ 130–189, M [SD] = 138.02 [6.57], age 16–79, M [SD] = 40.46 [11.31], age at diagnosis 4–70, M [SD] = 29.24 [12.53], age at first suspicion of giftedness 0–60, M [SD] = 18.18 [11.73], Mensa members since 0–46 years, M [SD] = 7.83 [6.57]).

Measures
After the newly developed inventory, measures of psychosocial wellbeing and coping are described (descriptive statistics in Table 1). Unless noted otherwise, all scales used 6-point Likert scales (1 = strongly disagree to 6 = strongly agree).

Gifted identity stage inventory (GISI)
Identity stages were assessed using an adaption of the Gay Identity Questionnaire (Brady & Busse, 1994), a 42-item abbreviation of Cass’s (1984) 200+ item inventory. Items were independently translated and adapted to giftedness by the authors (e.g., confusion: “The topic ‘giftedness’ does not relate to me personally”; comparison: “I may be gifted and I’m upset at the thought of it”; tolerance: “I’m probably gifted, even though I maintain a regular image in both my personal and public life”; acceptance: “My giftedness is a valid private identity that I do not want made public”; pride: “I frequently confront people about their prejudices and bias against gifted people”; integration: “I am proud and open with everyone about my giftedness, but it isn’t the major focus of my life”). Discrepancies were solved consensually.

Psychosocial adjustment
Early identity stages should be related to more negative and fewer positive feelings. To obtain a comprehensive impression of individual adjustment and wellbeing, a broad range of measures was used. Internalized giftedness negativity was assessed with a new scale. The authors screened four common questionnaires on internalized homonegativity (Currie, 2004; Mayfield, 2001;
for giftedness-compatible items. The result comprised diverse aspects of giftedness negativity (e.g., negative attitudes toward other gifted individuals, “My feelings toward other gifted persons are often negative”; gifted positivity, “I am grateful for my giftedness”).

Depression, an important aspect of mental health, was assessed using the depression subscale of the clinical Symptoms Checklist-90 R (SCL-90 R; Franke, 1995; e.g., “feelings of worthlessness”).

Perceived stress, central to the MSM, was assessed by Satow’s (2012) reliable and valid German SCI scales (1 = does not apply, 4 = applies).

Loneliness as one concomitant of minority status and minority identity development was assessed by Döring and Bortz’s (1993) translation of the widely used UCLA Loneliness Scale (Weiss, 1975; e.g., “I don’t feel close to anyone”).

Self-esteem as the benchmark variable for positive development was assessed with the Rosenberg Self-Esteem Scale (Rosenberg, 1965; von Collani & Herzberg, 2003; e.g., “On the whole, I am satisfied with myself”).

Happiness was measured with a German translation of the nonclinical Short Depression–Happiness Scale (SDHS; Joseph, Linley, Harwood, Lewis, & McCollam, 2004; see Hessel, Schumacher, Geyer, & Brähler, 2001, for evidence on the scale quality) assessing experiences of depression and happiness during the last week (e.g., “I felt happy”).

Overall life satisfaction was assessed using Diener et al.’s (1985) Satisfaction With Life Scale (Schumacher, 2003; e.g., “The conditions of my life are excellent”).

Coping
Coping comprises “efforts to manage specific […] demands that are appraised as taxing” (Lazarus & Folkman, 1984, p. 141). We expected more adaptive and less maladaptive coping strategies over the course of identity development. We selected three adaptive (active coping, emotional support, positive reframing) and three maladaptive 2-item coping subscales (denial, withdrawal, self-accusations) from the Brief COPE (Carver, 1997; Knoll, Rieckmann, & Schwarzer, 2005), rated on a 4-point Likert scale (1 = not at all to 4 = very; e.g., “I’ve been criticizing myself”).

Procedure
The survey was conducted via Unipark (QuestBack, 2014). The Mensa board announced the link in their official newsletter, which also informed about voluntariness and anonymity of participation. After generating their personal code to allow for matching the survey with follow-up questionnaires, participants answered the 230-item survey (average duration: 45 minutes), which, besides the above-described

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Items</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity stages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confusion</td>
<td>7</td>
<td>1.00–4.71</td>
<td>1.81</td>
<td>0.70</td>
<td>.80</td>
</tr>
<tr>
<td>Comparison</td>
<td>7</td>
<td>1.00–5.29</td>
<td>2.13</td>
<td>0.79</td>
<td>.71</td>
</tr>
<tr>
<td>Tolerance</td>
<td>6</td>
<td>1.00–5.60</td>
<td>2.56</td>
<td>0.86</td>
<td>.65</td>
</tr>
<tr>
<td>Acceptance</td>
<td>7</td>
<td>1.00–6.00</td>
<td>3.67</td>
<td>0.95</td>
<td>.78</td>
</tr>
<tr>
<td>Pride</td>
<td>6</td>
<td>1.00–5.33</td>
<td>2.32</td>
<td>0.73</td>
<td>.71</td>
</tr>
<tr>
<td>Integration</td>
<td>6</td>
<td>1.00–5.83</td>
<td>3.45</td>
<td>0.89</td>
<td>.74</td>
</tr>
<tr>
<td>Adjusting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giftedness negativity</td>
<td>27</td>
<td>1.21–4.50</td>
<td>2.55</td>
<td>0.57</td>
<td>.82</td>
</tr>
<tr>
<td>Depression</td>
<td>13</td>
<td>1.00–4.85</td>
<td>1.80</td>
<td>0.72</td>
<td>.90</td>
</tr>
<tr>
<td>Stress</td>
<td>13</td>
<td>1.00–4.00</td>
<td>1.91</td>
<td>0.58</td>
<td>.85</td>
</tr>
<tr>
<td>Loneliness</td>
<td>20</td>
<td>1.00–5.72</td>
<td>2.80</td>
<td>0.82</td>
<td>.93</td>
</tr>
<tr>
<td>Happiness</td>
<td>6</td>
<td>1.00–4.00</td>
<td>3.10</td>
<td>0.70</td>
<td>.86</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>10</td>
<td>1.50–6.00</td>
<td>4.69</td>
<td>0.92</td>
<td>.91</td>
</tr>
<tr>
<td>Wellbeing</td>
<td>5</td>
<td>1.00–6.00</td>
<td>4.00</td>
<td>1.10</td>
<td>.89</td>
</tr>
<tr>
<td>Coping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active coping</td>
<td>2</td>
<td>1.00–4.00</td>
<td>2.91</td>
<td>0.79</td>
<td>.81</td>
</tr>
<tr>
<td>Emotional support</td>
<td>2</td>
<td>1.00–4.00</td>
<td>2.49</td>
<td>0.84</td>
<td>.79</td>
</tr>
<tr>
<td>Positive reframing</td>
<td>2</td>
<td>1.00–4.00</td>
<td>2.68</td>
<td>0.81</td>
<td>.76</td>
</tr>
<tr>
<td>Denial</td>
<td>2</td>
<td>1.00–4.00</td>
<td>1.46</td>
<td>0.64</td>
<td>.61</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>2</td>
<td>1.00–4.00</td>
<td>1.45</td>
<td>0.55</td>
<td>.49</td>
</tr>
<tr>
<td>Self-accusations</td>
<td>2</td>
<td>1.00–4.00</td>
<td>2.27</td>
<td>0.83</td>
<td>.76</td>
</tr>
</tbody>
</table>

Note. α: Cronbach’s α.
scales, included several open- and closed-ended questions on participants’ background and leisure activities (not reported here). Skipping items was prevented technically; however, the option “Can’t/don’t want to answer” was always provided.

**Data analysis**

Descriptives and correlations were obtained using SPSS 20 (IBM Corp., 2011). Both the confirmatory factor analysis (CFA) to assess model fit of the GSI and the latent class analysis (LCA) to extract identity types were conducted in Mplus 7 (Muthén & Muthén, 2010).

**Results**

**Quality of the measure**

Fit of the 6-stage identity model was assessed using CFA. Modification indices revealed three ambiguous items, which we deleted (stage 3: 1, stage 5: 2), and suggested reassignment of one stage 6 item to stage 5. Furthermore, residuals of six item pairs with similar wordings were allowed to correlate, resulting in acceptable model fit on most indices ($\chi^2(681) = 2210.33; p < .0001; CFI = .84; RMSEA (90% C.I.) = .055 [.053; .058]; SRMR = .08, all items loading significantly on their factors) and sufficient internal consistency (Table 1).

GSI scales were correlated with adjustment and coping measures (Table 2). As predicted by the CIM, positive identity development was accompanied by a more positive view of one’s giftedness; less depression, stress, or loneliness; more happiness, self-esteem, and life satisfaction; and more adaptive coping (e.g., more emotional support, fewer self-accusations). For adjustment and adaptive coping, the “turning point” where the sign of the correlations reverts seems to lie between stages 5 and 6. Only early stages (“confusion” to “tolerance”) are characterized by maladaptive coping (e.g., denial, withdrawal, self-accusations), and decreasingly so. Of note, duration of membership in the high-IQ society had little to no effect on the GSI scores ($r_s = .02$–$.11$, $ps = .01$–.67) or on psychosocial adjustment ($rs = .01$–.13, $ps = .001$–.76), and no effect on coping ($rs = .01$–.06, $ps = .12$–.70).

**Latent class analysis (LCA)**

LCA identifies groups of participants with similar answering patterns by maximizing between-group heterogeneity and within-group homogeneity. As there is no “one best rule” to determine the optimal number of latent classes, a combination of statistical, theoretical, and content-based criteria is commonly used (Nylund, Asparouhov, & Muthén, 2007). We computed latent class models (comprising 1–7 classes) across GSI scores. Distinctness of plots, average latent class probabilities, VLMR and LMR tests comparing neighboring solutions, and, in part, the BIC favored a four-class solution (Table 3). The “Beginning” group scores were comparatively high at the early stages, thus representing individuals who combine behaviors from confusion to acceptance but who are neither proud to be gifted nor have developed an integrated identity including their own giftedness.

---

**Table 2. Zero-order correlations between GSI scores, adjustment, and coping.**

<table>
<thead>
<tr>
<th></th>
<th>Confusion</th>
<th>Comparison</th>
<th>Tolerance</th>
<th>Acceptance</th>
<th>Pride</th>
<th>Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adjustment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gifted negativity</td>
<td>.52***</td>
<td>.46***</td>
<td>.37***</td>
<td>.38***</td>
<td>.00</td>
<td>−.35***</td>
</tr>
<tr>
<td>Depression</td>
<td>.24***</td>
<td>.29***</td>
<td>.31***</td>
<td>.12**</td>
<td>.18***</td>
<td>−.23***</td>
</tr>
<tr>
<td>Stress</td>
<td>.23***</td>
<td>.23***</td>
<td>.31***</td>
<td>.16***</td>
<td>.20***</td>
<td>−.25***</td>
</tr>
<tr>
<td>Loneliness</td>
<td>.21***</td>
<td>.25***</td>
<td>.29***</td>
<td>.19***</td>
<td>.34***</td>
<td>−.38***</td>
</tr>
<tr>
<td>Happiness</td>
<td>−.23***</td>
<td>−.25***</td>
<td>−.29***</td>
<td>−.14***</td>
<td>−.19***</td>
<td>.25***</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>−.42***</td>
<td>−.39***</td>
<td>−.41***</td>
<td>−.17***</td>
<td>−.13***</td>
<td>.26***</td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>−.19***</td>
<td>−.21***</td>
<td>−.29***</td>
<td>−.11**</td>
<td>−.19***</td>
<td>.24***</td>
</tr>
<tr>
<td><strong>Coping</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active coping</td>
<td>−.31***</td>
<td>−.24***</td>
<td>−.25***</td>
<td>−.08*</td>
<td>−.01</td>
<td>.07</td>
</tr>
<tr>
<td>Emot. support</td>
<td>−.14***</td>
<td>−.11**</td>
<td>−.09*</td>
<td>−.08*</td>
<td>−.10**</td>
<td>.18**</td>
</tr>
<tr>
<td>Pos. reframing</td>
<td>−.18***</td>
<td>−.09*</td>
<td>−.11**</td>
<td>−.08*</td>
<td>.02</td>
<td>.16**</td>
</tr>
<tr>
<td>Denial</td>
<td>.18***</td>
<td>.18***</td>
<td>.15***</td>
<td>.06</td>
<td>.07</td>
<td>.01</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>.23***</td>
<td>.23***</td>
<td>.25***</td>
<td>.06</td>
<td>.06</td>
<td>.00</td>
</tr>
<tr>
<td>Self-accusations</td>
<td>.15***</td>
<td>.16***</td>
<td>.15***</td>
<td>.07</td>
<td>.05</td>
<td>−.12**</td>
</tr>
</tbody>
</table>

*Note. *p < .05; **p < .01; ***p < .001.*
The “Developing” group’s profile is similar, but somewhat lower at stages 1–3, showing that individuals belonging to this group feel a little less bad about their gifted identity but are still far from the integration stage. The “Accepting” and the “Integrated” groups show clear peaks at stages 4 and 6, respectively (Table 4; Figure 2). The prior thus disclose their gifted identity when deemed appropriate (although they are still not completely happy with it), whereas the latter have accepted their giftedness as one aspect of their identity while accepting others who are not gifted as equally valuable. A “Proud” profile (overidentification with and pride of the minority characteristic) was not identified.

**Ordinal logistic regression (OLR)**

To introduce a quasi-temporal aspect into the cross-sectional design, identity class membership was subjected to an OLR. Sequencing of the classes was aligned to the CIM: (1) Beginning, (2) Developing, (3) Accepting, and (4) Integrated. The time since first suspicion and since diagnosis of giftedness were introduced as predictors of identity class membership (Table 5).

<table>
<thead>
<tr>
<th>k</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Latent Class Probabilities (100)</td>
<td>90.80</td>
<td>86.30</td>
<td>86.80</td>
<td>85.26</td>
<td>83.00</td>
<td>81.11</td>
<td></td>
</tr>
<tr>
<td>Entropy</td>
<td>.73</td>
<td>.77</td>
<td>.75</td>
<td>.77</td>
<td>.75</td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td>AIC</td>
<td>9703.92</td>
<td>9005.85</td>
<td>8718.40</td>
<td>8545.60</td>
<td>8500.47</td>
<td>8454.52</td>
<td>8422.93</td>
</tr>
<tr>
<td>BIC</td>
<td>9759.17</td>
<td>9093.33</td>
<td>8838.10</td>
<td>8697.53</td>
<td>8684.63</td>
<td>8670.90</td>
<td>8671.55</td>
</tr>
<tr>
<td>BIC_{adj}</td>
<td>9721.06</td>
<td>9032.00</td>
<td>8755.54</td>
<td>8592.74</td>
<td>8557.61</td>
<td>8521.66</td>
<td>8500.08</td>
</tr>
<tr>
<td>VLMR (p)</td>
<td>&lt; .0001</td>
<td>&lt; .0001</td>
<td>.002</td>
<td>.001</td>
<td>.13</td>
<td>.20</td>
<td>.29</td>
</tr>
<tr>
<td>LMR (p)</td>
<td>&lt; .0001</td>
<td>&lt; .0001</td>
<td>.002</td>
<td>.001</td>
<td>.14</td>
<td>.19</td>
<td>.30</td>
</tr>
<tr>
<td>BLRT (p)</td>
<td>&lt; .0001</td>
<td>&lt; .0001</td>
<td>&lt; .0001</td>
<td>&lt; .0001</td>
<td>&lt; .0001</td>
<td>&lt; .0001</td>
<td>&lt; .0001</td>
</tr>
</tbody>
</table>

Note. k = number of classes. Information criteria: AIC = Akaike, BIC = Bayesian, BIC_{adj} = adjusted Bayesian. VLMR (Vuong-Lo-Mendell-Rubin likelihood ratio test), LMR (Lo-Mendell-Rubin likelihood ratio test), and BLRT (bootstrap likelihood ratio test) indicate whether a k classes model fits the data better than a k-1 classes model.
The test of parallel lines was not significant (\( p = .87 \)), indicating comparable slope estimates across classes, which is a prerequisite for OLR. Odds ratios indicated that for each year since first suspicion of giftedness, the likelihood to be in one of the “later” identity classes increases by 1.4%, for each year since diagnosis, by 2.5%. Actual diagnosis thus seems to precipitate development. Though the effects are rather small, one should keep in mind that they might accumulate over a lifetime.

**Discussion**

**Summary and integration of the findings**

This study is the first to successfully integrate the MSM and the CIM and to apply them to giftedness. Based on these strong theoretical frameworks, we show (1) that minority stress is an issue for the gifted, too, and that adjustment and coping vary as a function of identity stage; (2) that the GSI is useful to assess gifted identity stages; (3) that the CIM can be meaningfully applied to giftedness, yet with some limitations—notably, the lack of an explicit “pride” stage; and (4) that, despite our cross-sectional data, there are some hints that our latent classes relate to development, as evidenced by predictive power of time since first suspicion and since diagnosis of giftedness.

**Minority stress in the gifted**

Considering growing evidence of a disharmonious gifted stereotype in Germany, where this study was conducted (e.g., Baudson, 2016; Baudson & Preckel, 2013, 2016; Preckel et al., 2015), it would be surprising if this had no effects whatsoever. Early developmental stages relate to maladjustment and maladaptive coping, which could be shown here for the gifted. In line with findings on internalized homonegativity (Currie, 2004; Mayfield, 2001; Mohr & Kendra, 2011; Szymanski & Chung, 2001), we identified “internalized giftedness negativity.” This construct may help us better understand the “stigma of giftedness” (e.g., Coleman & Cross, 1988), as it precisely represents the MSM process how distal stressors become proximal stressors. Thus the construct may be valuable for both gifted identity research and counseling.

**Assessing gifted identity stages**

The GSI is a promising tool for assessing gifted identity stages. Though we modeled existing questionnaires on LGBT identity development as closely as possible, post hoc adaptations were necessary (yet always in line with the substance of the stages), resulting in not perfect but sufficient model fit. Reliability and validity indicators support the quality of GSI. Future research including not yet identified participants will likely help us understand early developmental stages better, which were underrepresented in our sample (see “Limitations and Strengths”). Latent class analyses seem a viable approach to the identification of the posited stages; we are optimistic that future studies with less selective samples will offer an even clearer picture of gifted identity development.

**Applicability of the CIM to giftedness**

Overall, we provide evidence that despite many differences between homosexuality and giftedness, the CIM can be meaningfully applied to giftedness. Though our “ideal” of six latent classes, each peaking at a different stage of the model, was not confirmed, the four resulting groups could be sequenced in line with the model assumptions, and time-related predictors increased the probability of being a member of a “later” group, as shown by ordinal logistic regression.

Early identity stages were underrepresented, as our sample comprised identified gifted adults only. Of note, though all participants had their objective test results in black and white, still many of them were struggling with uncertainty. Even unambiguous objective evidence may thus not suffice to compensate for dissenting lifelong subjective beliefs.

The “Pride” stage could not be identified. Though we cannot draw any firm conclusions, several reasons are conceivable. First, stages may blend into each other and thus may not be easy to

<table>
<thead>
<tr>
<th>Est. (SE)</th>
<th>OR</th>
<th>Wald</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspicion</td>
<td>.014 (.006)</td>
<td>1.014</td>
<td>5.545</td>
<td>1</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>.025 (.008)</td>
<td>1.025</td>
<td>10.708</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. Est. = Estimate. OR = odds ratio. Nagelkerke’s pseudo-\( R^2 = .042 \).
distinguish. For example, Cass (1984) found Stage 5 and 6 difficult to distinguish (though her discriminant analysis clearly favored a six-stage model). Degges-White, Rice, and Myers (2000), who examined the CIM in the context of lesbian identity development, mentioned the possibility that the Pride stage may be an artifact due to the historical context the model was developed in. Given that giftedness is an ambiguous and less clearly negative construct than, for example, homosexuality, gifted individuals may deem such self-enhancement at the expense of others less necessary, considering the positive aspects of giftedness. However, anecdotal evidence (e.g., “Brainiac” T-shirts in Mensa’s online shop) would contradict the notion that “gifted pride” is completely irrelevant. Possibly, their group is extremely small or the stage very short, decreasing the likelihood to identify people in this stage. Our method of analysis might also represent a limitation, as criteria to decide on the number of latent classes (e.g., Nylund et al., 2007) advise against too small classes. Larger samples and/or longitudinal measurements at brief intervals may shed light on the existence (or nonexistence) of the “Pride” stage in gifted development.

Predictors of developmental progress: Time heals all wounds?

Although statements about actual development require longitudinal data that were not available in the present study, time since first suspicion and time since diagnosis as gifted were small but significant predictors of identity class. People identified long ago were more likely members of “later” identity classes. The psychological processes occurring in the background for which time is a mere proxy should receive close attention in future studies. Developing coping mechanisms, changing evaluations of giftedness in general and one’s own giftedness in particular, or the experience of general and giftedness-specific stressors in the sense of the MSM are likely interesting candidate variables.

The extreme delay between first suspicion and actual diagnosis of giftedness, averaging 26.74 years (SD = 12.88; range 0–69 years), was striking. Internalized giftedness negativity may have prevented individuals from getting tested earlier. Given the importance of accurate diagnosis for suitable interventions to support talent development, one may get a glimpse of the potential wasted due to inadequate identification.

Limitations and strengths

Sample

Generalizability is likely the biggest limitation. Such an exclusive focus on the minority or marginalized group in question is face valid and has a long tradition in other domains (e.g., sexual orientation), but it certainly resulted in an underrepresentation of individuals in earlier identity stages and in difficulties distinguishing these stages.

Although, by definition, representative samples would include many who would not identify as gifted, representative norms (which have never been attempted for any minority or marginalized group) could drive theory development by elucidating whether self-perceived giftedness is continuous or categorical in nature. Identity has often been conceived of as continuous (e.g., sexual orientation, Savin-Williams & Vrangalova, 2013; gender, Bem, 1981; see also Frable, 1997). Whether this applies to giftedness is unclear. Scientific conceptions, often including superior intelligence to define giftedness, would suggest a continuum, whereas lay conceptions favor categorical distinctions (see discussion in Baudson, 2016).

Even when one accepts researching gifted identity in the gifted population only, our participants may differ from the “average” gifted person. The fact that participation required (1) passing the Mensa entrance test, (2) becoming a member, (3) Internet access, and (4) answering the full survey hints at possible threats to generalizability. Also, our sample excluded young adolescents and children, for whom identity development may be different, especially when identified at a very young age, considering that our respondents were identified relatively late on average. It is conceivable that because social comparison plays a minor role at this developmental stage, these children might be proud to be gifted. This has interesting implications for the missing “pride” stage in our sample and also encourages future research of younger samples.4

4The authors thank an anonymous reviewer (Reviewer 1) for this idea.
However, correlational analyses revealed that membership duration was, at best, weakly related to identity stage, adjustment, or coping. Identity development in gifted adults who associate with like-minded others may thus be no more problematic at the beginning of their membership than later on. Possibly, activities with other gifted people are more relevant than membership per se, considering the beneficial influence of other minority members (Meyer, 2003). If this is so, then seeking social support would be but one reason for becoming a member, besides other possible benefits (e.g., intellectual stimulation). Qualitative data to elucidate these questions are currently being examined.

Furthermore, data are limited to Germany, where the negative gifted stereotype seems to be particularly strong (e.g., Baudson, 2016). Although the mechanisms of identity development are likely generalizable, the result may be different in countries where the image of the gifted is more positive. Further research, both on the prevalence of gifted stereotyping and on its effects on identity formation in the gifted, is therefore required.

**Assessment of IQ**

The sample is based on self-reported IQs of 130 and above; we therefore depend on participants’ honesty. Though the survey invitation was directed at Mensans only, who have passed the criterion at one point, there is no way to ensure that the link was not shared outside Mensa (participants with IQs under 130 suggest that this did happen). In addition, the test was not the same for all. The “Mensa test” many participants indicated when prompted for specifics has changed over time; currently, two different tests are in use. There was no way for us to trace back on which test the results were based. Yet the great diversity of tests may enhance the ecological validity of our findings. Currently, we are planning a follow-up study with first-time test participants, where this information will be gathered in more detail.

**General criticism against stage models**

One limitation concerns stage models in general, which suggest a normative identity development in terms of both sequence and goal, thereby neglecting both the fact that identity may change throughout life and the possibility of multiple pathways (Cox & Gallois, 1996). A differentiated analysis of possible developmental trajectories may also elucidate the unclear “Pride” stage, which may occur in some individuals (one might speculate whether this would rather be the case for those experiencing the greatest adversities and thus a greater need to compensate for this “misfit” once their gifted status is ascertained) but not in others.

**Cross-sectional data**

Although the predictive power of time since first suspicion and since diagnosis of giftedness supports the notion of a temporal sequence of the stages, development can be assessed only longitudinally. Our results should therefore be understood as first indicators that the CIM represents a potentially fruitful theoretical framework for research on gifted identity formation, especially in the context of the overarching MSM. From a methodological point of view, longitudinal research will also allow assessing measurement invariance of the GISI over time.

**Conclusions and outlook**

Are the gifted a stigmatized minority? The answer is a clear “yes and no.” Although distal stressors in the form of negative stereotypes are strong in society, their impact on wellbeing as proximal stressors depends on one’s identity stage, which, in turn, is related to characteristic patterns of adjustment and coping. Our findings thus also show the relevance of the harmony/disharmony hypothesis for development toward an integrated gifted identity.

For research, longitudinal analyses of representative samples (including pre-diagnosis participants) are desirable to corroborate and generalize our findings. For practice, our findings indicate a clear need for better and earlier identification. Although the consequences of identification are by no means universally positive, long delays may mean years of unnecessary insecurity, doubt, and psychosocial maladjustment for gifted individuals. For education, the MSM suggests that contact with other gifted individuals may moderate the relationship between stressors and psychosocial adjustment and thus support positive identity development. This suggests that gifted grouping makes sense not only from an achievement-related
point of view but also from a social–emotional perspective. Therefore, inclusive school settings in particular should provide for opportunities where gifted students can meet and interact with each other. Thus supporting positive development of both achievement and wellbeing in the gifted might eventually even shatter the foundations of the inaccurate and harmful disharmonious gifted stereotype entirely—which, in turn, will contribute to that very positive development of the gifted.

Acknowledgments

The authors wish to thank all members of Mensa in Germany who participated in the present research as well as the Mensa board members who generously helped us distribute the information about our study.

ORCID

Tanja Gabriele Baudson © http://orcid.org/0000-0002-4425-6513

References


Einsamkeitsforschung: Deutsche Neukonstruktion der UCLA loneliness Scale [Psychometric loneliness research: German reconstruction of the UCLA Loneliness Scale], *Diagnostica, 39*, 224–239.


**Author bios**

**Tanja Gabriele Baudson**, PhD, holds an interim professorship in Educational and Psychological assessment at the University of Duisburg-Essen. Her research interests include intelligence, gifted stereotypes and their impact on identity development, and creativity. Her work spans about 100 scientific contributions, including two intelligence tests and peer-reviewed journal publications in *Frontiers in Psychology*, the *American Educational Research Journal*, and the *European Journal of Psychological Assessment*, among others. In 2015, one of her articles received the Mensa Foundation’s Award for Excellence in Research.

**Johanna Fee Ziemes** is a trained psychologist, family counselor, and feminist. Her research focuses on questions of identity formation in the context of discrimination and citizenship education. Further interests include philosophy, constructivism, and intersectionality. Currently, she is working toward her PhD about the formation of a political identity in the International Civic and Citizenship Education Study (ICCS).