



Social Exclusion, Subjective Academic Success, Well-Being, and the Meaning of Trust

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Abstract: This article uses a person-environment fit perspective to investigate whether and how educational background and general trust are related to fit (or not) with university life as well as to criteria of subjective academic success and well-being. To analyze how students perceive fit with their university, we measured their perception of exclusion and their affective commitment. The sample includes $N = 424$ students from two German universities, about half of whom have at least one parent with tertiary education. The results show that especially general trust is related to the subjective criteria of academic success, and that this relationship is mediated by the perception of exclusion, on the one hand, and by the affective commitment, on the other hand. A comparison of the two mediators shows that the perception of exclusion is particularly potent in terms of predicting satisfaction with coping with study demands and general well-being. We discuss the results in terms of their significance to the future diversity management at universities for overcoming social inequality and increasing social inclusion.

Keywords: subjective academic success, well-being, perception of exclusion, affective commitment, general trust

Soziale Exklusion, subjektiver Studienerfolg, Wohlbefinden und die Bedeutung von Vertrauen

Zusammenfassung: Vor dem Hintergrund der P-E-Fit-Theorie wird der Einfluss des Bildungshintergrundes und des generellen Vertrauens auf die subjektive Passung (Fit) der Studierenden zu ihrer Universität sowie auf subjektive Studienerfolgskriterien und Wohlbefinden untersucht. Als Indikatoren des Fits (oder Missfits) der Studierenden mit ihrer Universität werden das Exklusionsempfinden und das affektive Commitment betrachtet. Die Stichprobe umfasst $N = 424$ Studierende von zwei Universitäten. Die Hälfte der Studierenden stammt aus Familien mit akademischem Hintergrund. Die Ergebnisse zeigen, dass vor allem das generelle Vertrauen mit den subjektiven Studienerfolgskriterien und dem Wohlbefinden zusammenhängt und dieser Zusammenhang durch das Exklusionsempfinden und das affektive Commitment mediiert wird. Ein Vergleich der beiden Mediatoren zeigt, dass das Exklusionsempfinden insbesondere die Zufriedenheit mit der Bewältigung von Studienbelastungen und das Wohlbefinden vorhersagt. Die Ergebnisse werden im Hinblick auf zukünftige Erfordernisse universitären Diversity Managements zur Reduktion sozialer Ungleichheit und erhöhter Inklusion diskutiert.

Schlüsselwörter: Subjektiver Studienerfolg, Wohlbefinden, Exklusionsempfinden, affektives Commitment, generelles Vertrauen

In recent decades, German education policy has succeeded in increasing the number of first-year university students. More than half of school graduates take up tertiary education, and among this cohort are more and more first-generation students (Middendorff et al., 2017). The success of enhancing the ratio of students from this target group has resulted in a growing diversity at universities. However, access is not the same as success. Whereas Bosse (2015) underlines that the success of first-year students at universities depends on how, among other things, students deal with personal and social challenges, international surveys stress social inequality concerning the access to and success in universities as pivotal to academic achievement. Particularly in Germa-

ny, social and educational background affects educational success, in the sense that students whose parents have lower educational qualifications are less likely to obtain a tertiary degree compared to those who have at least one tertiary-educated parent (OECD, 2018). Recently, Heublein et al. (2017) found that 47% of students who dropped out left the university during their first year; furthermore, these dropouts were significantly more likely to come from families with lower levels of educational attainment. These findings raise questions about how first-generation students, in contrast to traditional students, experience their transition to university life, how they feel (e.g., a sense of belonging or alienation from the university) – in summary, what degree of fit or misfit they

experience with their university after transition, and how this fit is interrelated with academic success and well-being.

Fitting in at the University – A Special Demand on First-Generation Students?

The transition from school to university is a highly challenging and critical stage in life (Brahm et al., 2014; Briggs et al., 2012; Kendall et al., 2018). Students acquire new knowledge, grow personally, and expand their cultural capital (Lehmann, 2014). These developments may be especially demanding on first-generation students (sometimes called “nontraditional students”), who can feel alienated or even excluded from their academic environment (Reay et al., 2010). As mentioned above, young adults with lower-educated parents are overall less likely to achieve a tertiary degree than those who have at least one tertiary-educated parent (OECD, 2018). If those with a lower educational background enter the university, they sometimes have severe problems adapting successfully. A substantial body of research shows, on the one hand, that the ability of young adults to integrate into the sociocultural environment of a university is decisive for their academic success (Gale & Parker, 2012; Jenert et al., 2015). On the other hand, scholars argue that universities are middle-class-oriented and show an “institutional habitus” with specific, partially informal rules for organizational and communicational demands (Reay et al., 2001; Thomas, 2002). However, many first-generation students are not as familiar with the specific expectations of universities concerning behavior, communication, and worldviews as their peers from families with higher educational backgrounds (Devlin, 2013). Indeed, success at the university seems to be related to the individual’s capability to interact with institutional requirements. While earlier research was based more on either individual or institutional factors to explain students’ transition to university life, more recently the interplay of personal and institutional factors during the transition to university is considered (Devlin, 2013). Related to this, Heublein (2014) discusses a lack of fit between individual and institutional demands as responsible for university dropout rates.

Affective Commitment and Social Exclusion under the Perspective of Person-Environment Fit

The interplay of individual and institutional features is relevant to research on academic success which refers to the approach of person-environment fit (Edwards et al., 1998). The interactionist theory of person-environment fit assumes that the correspondence between personal factors (e.g., skills or needs) and situational factors (e.g., organization-specific requirements) decisively affects outcome variables such as performance and commitment as well as satisfaction and well-being (Edwards et al., 2006; Edwards & Shipp, 2007). The effects of person-environment fit have been studied in various fields of research, such as job satisfaction (Hagmaier-Göttle & Abele-Brehm, 2015; Hardin & Donaldson, 2014), flow (Albrecht & Thielgen, 2019), job identification (Weiß et al., 2014), affective organizational commitment (Greguras & Dieffendorff, 2009), well-being (Stiglbauer & Kovacs, 2018; Suhlmann et al., 2018; van den Bosch et al., 2019), and study satisfaction (Bohndick et al., 2018), which in turn is taken to be a key criterion of study success.

The decisive factor here is less the objective but rather the subjective fit (Bohndick et al., 2018; Cable & DeRue, 2002), since both the personal variables and the organization-specific requirements affect intraindividual information processing. Following this line of research, it turns out that both subjective discrepancies between students’ abilities and study requirements as well as subjective discrepancies between students’ needs and study offers are associated with a diminished level of overall study satisfaction (Heise et al., 1997; Spies et al., 1996; Westermann et al., 1998). Furthermore, Heise and Thies (2015) follow a diversity-oriented perspective and show that, for first-year students, the diversity management of university teachers regarding their students’ cognitive and motivational skills is a significant predictor of student satisfaction. In general, affective commitment and the experience of social exclusion have increasingly become a focus of research interest. As mentioned above, the affective commitment of students to their university is often discussed as a precondition for study satisfaction and thus also for objective academic success. In this sense, Breitsohl et al. (2009) found that affective commitment is negatively correlated with turnover tendencies.

The construct of social exclusion is now also finding its way into psychological research. Especially for impaired groups (e.g., people with mental disorders both inside and outside of educational institutions), mechanisms of inclusion and exclusion are being discussed, partly related to

cognitive (Syrjämäki & Hietanen, 2019) or neural (Morese et al., 2019; Stephens et al., 2012) processes. To clarify whether, how, and to what extent exclusion mechanisms (institutional, interactional, and psychological) are inter-related, Bude and Lantermann (2006) developed the so-called precariousness resource model of the perception of exclusion, which is dedicated to the relationship between objective and subjective exclusion and, thus, between precarious living conditions and the perception of exclusion. This approach provides a framework for analyzing social exclusion; it allows a conceptual distinction between structural or objective exclusion and the perception of exclusion as well as a theoretically derived and tested instrument for measuring the perception of exclusion. The authors assume that the interaction of internal and external resources with the situation in which individuals find themselves – or their interpretation of that situation – results in a higher or lower perception of exclusion. Although the model primarily addresses the social situation of individuals, it is transferable to the experience of belonging to or being excluded from an institution. Furthermore, there is a strong analogy to the importance of subjective fit in the person-environment fit approaches. Accordingly, Umlauft et al. (2013) reported unstable connections between objective exclusion characteristics and the perception of exclusion for the school context. Overall, empirical testing of the model shows that objective features of precarious life situations are not sufficient to explain the perception of exclusion.

For students, there are hardly any studies that deal directly or indirectly with perceived exclusion based on their social background. According to the few studies available, students with a migrant background seem to have a lower academic achievement rate in Germany (Burkhart et al., 2011). Further, they achieve poorer exam results, take longer to complete their studies, and drop out more often (Morris-Lange, 2017). Altogether, the above-mentioned findings reveal that affective commitment and the perception of social exclusion are relevant indicators of fit or misfit with university life. The interplay between, or distinctiveness of, perception of exclusion and affective commitment as predictors of academic success and well-being has not yet been systematically investigated. The following section outlines personal factors related to these indicators of fit.

Educational Background and General Trust as Predictors of Subjective Fit

Reay et al. (2010) showed that commitment is a particular challenge for first-generation students. Similarly, studies underlined (for the USA) that social background affects the extent to which students believe they belong to (or “fit in”; Aries & Seider, 2005, 2007) their university. Berger and Milem (1999) also stated that differences in social background have an impact on academic socialization and, ultimately, on the commitment to the university. Similarly, Walton and Cohen (2007, 2011) showed that nontraditional students often feel alienated from or uncommitted to their university. Janke et al. (2017) examined differences between first-generation and continuing-generation students, arguing that the experience of a first-generation student’s misfit can be explained primarily by social identification and, thus, ultimately by the underlying assumptions of the theory of social identity (Tajfel & Turner, 1986). Membership in an underprivileged and comparatively small group (many academics still have higher educational backgrounds; see also Hauschildt et al., 2015) can lead to feelings of distance or alienation. Referring to their longitudinal study, Janke et al. reported that the social background is reflected in the social identity (the “social self”); this effect does not level off throughout the study. The authors further argued that the educational background is identity-forming and has a stronger influence than the economic background (Ethier & Deaux, 1994; Thomas & Azmitia, 2014). They referred to findings that show that the educational background of the parental home has more to do with lifestyle, behavior, and psychological functioning than the economic background (Snibbe & Markus, 2005; Stephens et al., 2007).

Apart from the substantial body of research considering the role of social and educational background variables for academic success, another line of reasoning reflects on trust as an element of social capital influencing social identity development (Davis, 2014; Petermann, 2013). Scholars discussed trust as a personality trait that is relatively stable (in the sense of Rotter, 1967), or as being a rather malleable attitude that is socially learned and varies according to age, sphere of life, and related experiences (Abdelzadeh & Lundberg, 2017; Flanagan & Stout, 2010; Freitag & Bauer, 2016; Glanville & Paxton, 2007). Consensually, generalized (or basic) and specific trust are distinguished, with stronger generalized trust making the emergence of specific trust more likely (Schweer & Thies, 2008). Following Rotter’s assumptions, the short scale for measuring interpersonal trust (Beierlein et al., 2012) was established to measure

generalized interpersonal trust. It uses three items to measure how firm the conviction is that one can trust other people on principle. In the validation studies, the scale is linked to personality traits (such as agreeableness), various aspects of satisfaction, mental and physical health, and educational level. Further, international surveys also suggested that individuals display stronger interpersonal trust, the more they are educated in terms of years of schooling (Borgonovi, 2012; Borgonovi & Burns, 2015; Charron & Rothstein, 2016). Under this perspective, trust (or the capability to trust) is unequally distributed.

Regarding students, scholars also supported the assumption of trust being a prerequisite for the use of social capital that may help students to develop educational aspirations (Fuller, 2014), or that trust enables successful interaction and inclusion in new environments (White, 2014). Accordingly, trust can be seen as part of an individual's capital or as a resource. From this angle, Bormann and Thies (2019a) argued that general trust (in the sense of Rotter, 1967, and Beierlein et al., 2012) helps students enter the university and supports them in using formal and informal support structures that might enable their fit with university life. In this line of argumentation, the developing "habitual trust" (as a specific form of trust in academic socialization) leads to current or prospective advantages resulting from affiliation to (and interaction with) certain groups and networks providing resources such as support, access, and information (Bormann & Thies, 2019a). Because especially first-year students find themselves in an unfamiliar environment, dealing with the complexity resulting from such unfamiliarity may be facilitated by their general trust. In general, trust helps to deal with complexity and uncertainty; it is considered a powerful resource for coping with demanding interpersonal interactions as well as with institutions (Bachmann & Inkpen, 2007; Frederiksen, 2014; Luhmann, 2000). Greater general trust may be helpful to join others and feel included and, in this sense, fosters the fit with university life.

Subjective Fit as a Predictor of Academic Success and Well-Being

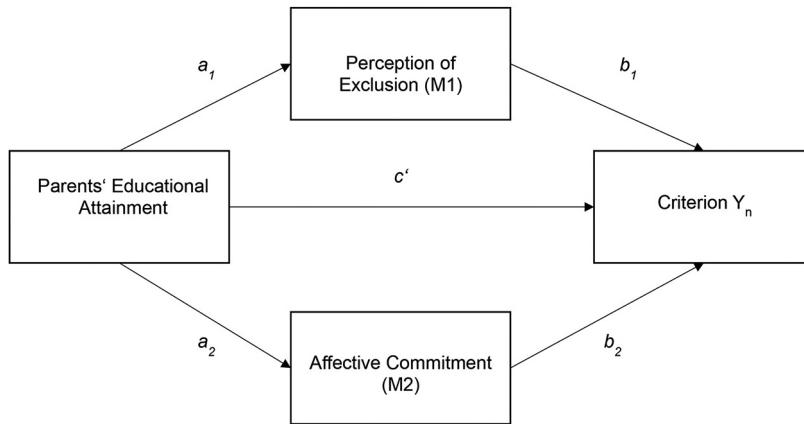
Academic success is often measured by objective factors such as dropout rates and adherence to standard study periods and, in some cases, final grades (these are, however, viewed particularly critically because of the differences in topic groups and university locations, Wissenschaftsrat, 2012). In contrast, there are more and

more studies that understand academic success multidimensionally and distinguish objective and subjective criteria of academic success (Heinze, 2018). Mainly study satisfaction and sometimes drop-out tendencies are considered as subjective criteria of academic success (Biermann et al., 2017; Kessler et al., 2016). Study satisfaction can be defined as an attitude, analogous to job satisfaction (Felfe & Six, 2006; Westermann & Heise, 2018). According to Westermann et al. (1996), study satisfaction can be divided into satisfaction with content, with conditions, and with coping with study demands. Low study satisfaction is related to the intention to drop out of the study program (Werner, 2008). Blüthmann (2012) showed that variables directly related to the learning process (quality of teaching, study climate, own motivation to learn, acquired expertise) show significant correlations with study satisfaction. The assumed relationship between well-being and study satisfaction depends on the constructs and operationalizations used. While some researchers have treated satisfaction as an element of well-being (Antaramian, 2017), others distinguished these constructs (Janke et al., 2017).

Related to well-being and life satisfaction, the (mental) health of students has also increasingly come into the focus of scientific and public attention. The reported numbers of (mentally) impaired students fluctuate. A representative survey of German students showed that 3% of students suffer from mental illness and study difficulties (Middendorff, 2013), while a health insurance company states that 21% of their insured students have a mental disorder (Techniker Krankenkasse, 2015). Barthel and Rawohl (2008) found that students are not more often mentally ill than the general population (but also not healthier; for a more detailed overview, see Hofmann et al., 2017). The WHO World Mental Health Surveys International College Student Project (Auerbach et al., 2018) reported about one-third of the students screening positively for a mental disorder. Furthermore, empirical results suggested that the experience of ostracism as a special form of being socially excluded negatively influences well-being (Pollatos et al., 2015). In this sense, well-being can be regarded as interrelated with the felt fit with university.

Research Questions and Hypotheses

Relying on the theory of person-environment fit, we assume that perception of exclusion and affective commitment as indicators of fit or misfit with the university



Note. The model is visualized with perception of exclusion and affective commitment as mediators for the effect of parents' educational attainment on academic success criteria and well-being. This model serves as well for parallel multiple regression analyses with perception of exclusion and affective commitment as mediators for the effect of general trust on academic success criteria and well-being.

Figure 1. Statistical model of the parallel multiple mediation analyses.

mediate the effect of the personal variables parents' educational attainment and general trust on academic success criteria (study satisfaction and intention to drop out) as well as on well-being. This assumption is visualized in Figure 1.

Hypotheses

Hypothesis 1 (H1): Perception of exclusion and affective commitment mediate the effect of parents' educational attainment on study satisfaction.

Hypothesis 2 (H2): Perception of exclusion and affective commitment mediate the effect of parents' educational attainment on intention to drop out.

Hypothesis 3 (H3): Perception of exclusion and affective commitment mediate the effect of parents' educational attainment on well-being.

Hypothesis 4 (H4): Perception of exclusion and affective commitment mediate the effect of general trust on study satisfaction.

Hypothesis 5 (H5): Perception of exclusion and affective commitment mediate the effect of general trust on intention to drop out.

Hypothesis 6 (H6): Perception of exclusion and affective commitment mediate the effect of general trust on well-being.

Method

Sample

The sample consisted of $N = 424$ students from two German universities, 277 studying in a bachelor's program (256 of whom were in their first year, 133 in their first semester), 143 studying in a master's program (with two students in other programs; two students did not provide any information on their study program). 242 were students of the humanities and cultural sciences, 47 of economics and social sciences, and 54 of science and engineering. 53 students could not address one of the above-mentioned categories, and 28 did not respond to this item. 108 males, 306 females, and 10 with a diverse sex were included. Their age ranged from younger than 20 ($N = 118$) to between 21 and 25 years ($N = 194$), between 26 and 30 years ($N = 71$), and older than 30 ($N = 41$). We made no hypotheses concerning sociodemographics, so that no further data are reported here (except for educational background, reported below). The online survey was conducted in autumn 2019. Students were recruited via course distribution lists. They participated voluntarily and were not paid.

Measures

To measure the "educational background", we used an 8-point scale varying from *no educational attainment* to *possessing a Ph.D.* (see Table 1), asking for the highest educational level of at least one parent (those who ticked the values 1 to 5 are considered first-generation students). For further analyses, this variable was dichotomized (0 for first-generation students).

For "general trust" we used the general trust scale "KUSIV3" (Beierlein et al., 2012; e.g., "In general, you can

Table 1. Parents' highest educational attainment

	N	%
First-generation students	221	52.1
No educational attainment	5	1.2
Secondary school certificate (Hauptschulabschluss)	18	4.2
Intermediate maturity level (Mittlere Reife)	102	24.1
Vocational baccalaureate (Fachabitur)	32	7.5
A-Levels (Abitur)	64	15.1
Traditional students	195	46.9
Bachelor	30	7.1
Master	143	33.7
Ph.D.	22	5.2
Missing	8	1.9

Note. German original names in parentheses.

trust people”). To assess the “perception of exclusion”, we adapted the scale of Bude and Lantermann (2006) for university concerns (e.g., “I feel like I don’t really belong to the university”). Organizational commitment was measured as “affective commitment” with the scale by Kil et al. (2000; e.g., “I’m glad I’m studying at this university”). Both the perception of exclusion and affective commitment are considered as indicators of the perceived fit with the university. To date, the perception of exclusion at universities has been studied only rarely. Since we were not aware of any established scales, and because the items of both (exclusion and commitment) scales have semantic similarities, we first examined the distinguishability of the constructs by principal component analysis. To keep the factors as independent as possible, we ran a Varimax rotation. According to the eigenvalue criterion, two factors (Factor 1: Affective commitment, eigenvalue 4.64, Factor 2: Perception of exclusion, eigenvalue 2.56) resulted and correspond to the original scales. Hence, they were used for analyses.

Subjective academic success is conceptualized in terms of “study satisfaction” and “intention to drop out.” Study satisfaction was measured in the tradition of Westermann et al. (1996) with three subscales, namely, satisfaction with the contents, e.g., “I really enjoy what I study”; satisfaction with the study conditions, e.g., “I wish that the study conditions at the university were better”; and satisfaction with the coping with study demands, e.g., “I often feel tired and exhausted by my studies”. Intention to drop out was measured with two items from Deuer and Wild (2018), e.g., “I have already thought about giving up my studies”. “Well-being” was measured using the scale of the WHO, a well-established screening method (Brähler et al., 2008; e.g., “For the last two weeks, I felt calm and relaxed”). All items could be answered on scales from 0 (*does not apply at all*) to 10 (*applies completely*), except

for the well-being items, which were measured with a scale from 0 (*never*) to 5 (*always*). Means, standard deviations, and Cronbach’s alphas are reported in Table 2.

Statistical Approach

Our main research interest lies in the mediating effect of the fit-variables perception of exclusion and affective commitment on the relationship between personal variables as predictors and subjective academic success and well-being as criteria. Educational background as a socio-demographic variable and general trust as a medium-term stable variable (i.e., formed before entering the university) can be assumed to have a causal effect on the outcome variables, insofar as they temporally precede them. These assumptions are theoretically derivable despite the cross-sectional data collection. This also applies to the assumed mediators affective commitment and perception of exclusion, since they are theoretically conceived as fit variables that predict the outcome variables.

According to Figure 1, direct (c') and indirect (a_1b_1 ; a_2b_2) effects are tested. Parallel multiple mediation analyses are calculated according to Preacher and Hayes (2008) and Hayes (2013) using IBM SPSS Statistics 26 and the SPSS add-on module PROCESS 3.4.1. The estimation of indirect effects in a parallel multiple-mediator model with perception of exclusion and affective commitment as potential mediators allows the simultaneous testing of both psychological processes, taking into account the relationship between them. Thus, each of the analyses includes parents’ educational attainment or general trust as a predictor, perception of exclusion and affective commitment as parallel mediators, and, depending on the hypothesis, study satisfaction, intention to drop out, or

Table 2. Summary of intercorrelations, means, standard deviations, and reliability scores (Cronbach's alpha)

Scale	1	2	3	4	5	6	7	8	M	SD	α
1. Level of parents' educational attainment									.66	.49	-
2. General trust	.166**								6.88	1.97	.807
3. Affective commitment	-.097*	.111*							6.19	2.02	.851
4. Perceived exclusion	-.005	-.205**	-.287**						2.02	1.92	.844
5. Study satisfaction (content)	-.028	.183**	.471**	-.342**					6.94	2.19	.911
6. Study satisfaction (conditions)	.037	.117*	.439**	-.280**	.354**				4.99	2.54	.842
7. Study satisfaction (coping with demands)	.015	.196**	.260**	-.467**	.354	.508**			5.92	2.69	.869
8. Intention to drop out	.043	-.091	-.291**	.415**	-.501**	-.254**	-.408**		2.25	2.58	.665
9. Well-being	.003	.299**	.204**	-.348**	.336**	.287**	.530**	-.255**	2.47	.95	.839

Note. * $p < .05$, ** $p < .01$. Level of parents' educational attainment was recorded by means of a single item and dichotomized, so that Cronbach's alpha cannot be calculated here.

well-being as a criterion. Covariates were introduced to control the effects of gender, bachelor vs. master study program, and first-semester status. Significance testing of the indirect effects was conducted using 95% bias-corrected confidence intervals (BC 95% CI) from 10,000 bootstrap samples.

Results

Table 2 shows the intercorrelations and scales' reliabilities. Except for intention to drop out ($\alpha = .665$), the reliabilities of the scales are good (α from .807 to .911). The level of parents' educational attainment does not correlate significantly with the criteria, but negatively with the mediator affective commitment ($r = -.097$, $p < .05$) and with general trust ($r = .166$, $p < .01$). Overall, a variety of significant intercorrelations emerges for general trust with the criteria and the mediators: General trust correlates significantly with study satisfaction with content ($r = .183$, $p < .01$), with conditions ($r = .117$, $p < .05$), with coping with study demands ($r = .196$, $p < .01$), and with well-being ($r = .299$, $p < .01$), but not with intention to drop out ($r = -.091$, *ns*). A further correlation occurs with the second mediator affective commitment ($r = .111$, $p < .05$).

The following sections report the results of parallel multiple mediation analyses. We conducted mediation analyses for parents' educational attainment and for general trust as predictors of subjective academic success criteria and well-being. Mediation analyses were repeated with control for gender, bachelor vs. master study program, and first-semester status, because significant correlations of these variables with criteria, mediators, and independent variables were found. Gender correlates with satisfaction with contents ($r = .100$, $p < .05$), intention to drop out ($r = -.144$, $p < .01$) as well as with perception of exclusion ($r = -.131$, $p < .01$) and affective commitment ($r = .120$, $p < .05$). Additionally, there is a correlation with parents' educational attainment ($r = -.109$, $p < .05$). In sum, female students seem to be more satisfied with the content and more strongly committed to the university as well as less affected by drop-out intentions and perception of exclusion. Remarkably, female students in this study stem from families with lower parents' educational attainment.

Studying in a bachelor vs. a master program is interrelated with satisfaction with content ($r = -.217$, $p < .01$), satisfaction with conditions ($r = -.251$, $p < .01$) as well as with the mediators (perception of exclusion: $r = -.118$, $p < .05$, affective commitment: $r = -.159$, $p < .01$). First-semester status is also associated with satisfaction with content ($r = -.147$, $p < .01$), satisfaction with conditions ($r =$

-.152, $p < .01$), intention to drop out ($r = .113$, $p < .05$), and affective commitment ($r = -.172$, $p < .01$). Master students are less satisfied with content and conditions and feel less excluded as well as less committed. Analogously, first-semester students are more satisfied with content and conditions, feel more committed to their university and are less affected by drop out intentions.

Influence of Parents' Educational Attainment on Subjective Study Success and Well-Being

Despite the few significant correlations between parents' educational attainment and the fit variables (mediators) as well as the criteria, we used mediation analyses to examine indirect effects, to get a deeper insight into the role of parents' educational attainment and to test hypotheses 1, 2 and 3 (Table 3).

We found no direct effects (c') of parents' educational attainment on the criteria. Furthermore, parents' educational attainment does not predict the mediator perception of exclusion ($a_1 = -.01$, $p = .915$), but only affective commitment ($a_2 = -.19$, $p = .048$). The mediators significantly predict the criteria: They predict study satisfaction with content ($b_1 = -.22$, $p = .000$, $b_2 = .40$, $p = .000$), with conditions ($b_1 = -.16$, $p = .000$, $b_2 = .39$, $p = .000$), and with coping with study demands ($b_1 = -.43$, $p = .000$, $b_2 = .13$, $p = .003$). The mediators also predict the intention to drop out ($b_1 = .35$, $p = .000$, $b_2 = -.18$, $p = .000$) and well-being ($b_1 = -.31$, $p = .000$, $b_2 = .10$, $p = .024$).

In the subsequent parallel multiple mediation analyses, we found two indirect effects for educational attainment and affective commitment (a_2b_2), namely, in predicting study satisfaction with conditions (partially standardized effect: $-.07$, 95%-CI $[-.15, -.001]$) as well as in predicting intention to drop out ($.03$, 95%-CI $[-.0002, .08]$). We found no further indirect effects. In sum, Hypotheses 1, 2, and 3 must be rejected.

When we introduced gender, bachelor vs. master study program, and first-semester status as covariates, only slight changes occurred. An additional indirect effect for affective commitment occurs when predicting study satisfaction with content while controlling for bachelor vs. master program ($-.07$, 95%-CI $[-.14, -.001]$). When predicting intention to drop out, the indirect effect of affective commitment is no longer significant if gender or first-semester status is controlled for.

Influence of General Trust on Subjective Study Success and Well-Being

We found direct effects (c') of general trust on the criterion variables: General trust significantly predicts satisfaction with content ($c' = .18$, $p = .000$), satisfaction with conditions ($c' = .12$, $p = .011$), satisfaction with coping with study demands ($c' = .19$, $p = .000$) as well as well-being ($c' = .30$, $p = .000$). Intention to drop out is not predicted by general trust ($c' = -.08$, $p = .071$), which predicts the mediators perception of exclusion ($a_1 = -.20$, $p = .000$) and affective commitment ($a_2 = .11$, $p = .023$). The mediators predict satisfaction with content ($b_1 = -.20$, $p = .000$, $b_2 = .40$, $p = .000$), satisfaction with conditions ($b_1 = -.15$, $p = .000$, $b_2 = .38$, $p = .000$), and satisfaction with coping with study demands ($b_1 = -.40$, $p = .000$, $b_2 = .13$, $p = .003$) as well as intention to drop out ($b_1 = .36$, $p = .000$, $b_2 = -.18$, $p = .000$) and well-being ($b_1 = -.27$, $p = .000$, $b_2 = .10$, $p = .030$).

The results of the mediation analyses indicate that both perception of exclusion and affective commitment mediate the effect of general trust on the subjective academic success criteria and well-being (Table 4): The relationship between general trust and the three components of study satisfaction is mediated by perception of exclusion (a_1b_1) and affective commitment (a_2b_2) (Hypothesis 4). The effect of general trust on study satisfaction with content (total effect: $.20$, 95%-CI $[-.10, .31]$, $p = .000$, direct effect after entering the mediators: $.10$, 95%-CI $[-.01, .20]$, $p = .021$) is partially mediated by perception of exclusion (indirect effect: $.04$, 95%-CI $[-.01, .07]$) and affective commitment (indirect effect: $.04$, 95%-CI $[-.002, .08]$). The effect of general trust on study satisfaction with conditions (total effect: $.15$, 95%-CI $[-.03, .28]$, $p = .011$; direct effect of general trust after entering the mediators not significant: $.06$, 95%-CI $[-.05, .17]$, $p = .279$) is fully mediated by perception of exclusion (indirect effect: $.03$, 95%-CI $[-.01, .05]$) and affective commitment (indirect effect: $.04$, 95%-CI $[-.001, .08]$). Finally, the effect of general trust on satisfaction with coping with study demands (total effect: $.27$, 95%-CI $[-.14, .40]$, $p = .000$; direct effect of general trust after entering the mediators: $.13$, 95%-CI $[-.02, .25]$, $p = .020$) is partially mediated by perception of exclusion (indirect effect: $.08$, 95%-CI $[-.04, .12]$) and affective commitment (indirect effect: $.01$, 95%-CI $[-.0003, .03]$), too.

As mentioned above, when predicting students' intention to drop out (Hypothesis 5), we found no direct effects (total effect: $-.11$, 95%-CI $[-.24, .009]$, $p = .071$, direct effect after entering the mediators: $.00$, 95%-CI $[-.10, .12]$, $p = .865$). However, we found indirect effects for perception of exclusion [$-.07$, 95%-CI $[-.11, -.03]$] and affective commitment ($-.02$, 95%-CI $[-.04, -.005]$). Con-

Table 3. Parallel multiple mediation analyses with perception of exclusion (a_1b_1) and affective commitment (a_2b_2) as parallel mediators ($M_{1,2}$) of the effect of parents' educational attainment on academic success criteria (Y_n) and well-being

Criterion (Y_n)	N	Parallel mediators ($M_{1,2}$)	Indirect effect (BC 95% CI)	Indirect effect controlled for gender (BC 95% CI)	Indirect effect controlled for bachelor/master status (BC 95% CI)	Indirect effect controlled for first-semester status (BC 95% CI)
Study satisfaction (content)	415	Perceived exclusion	.00 (-.04, .04)	.01 (-.33, .06)	.004 (-.04, .05)	.005 (-.03, .05)
		Affective commitment	-.07 (-.16, .0004)	-.04 (-.13, .03)	-.07* (-.14, -.001)	-.06 (-.14, .01)
Study satisfaction (conditions)	415	Perceived exclusion	.001 (-.03, .03)	.00 (-.02, .04)	.00 (-.03, .04)	.00 (-.03, .03)
		Affective commitment	-.07* (-.15, -.001)	-.04 (-.12, .02)	-.06* (-.14, .0004)	-.06 (-.13, .008)
Study satisfaction (coping with demands)	414	Perceived exclusion	.004 (-.08, .09)	.02 (-.06, .11)	.00 (-.07, .09)	.01 (-.07, .09)
		Affective commitment	-.02 (-.06, .0003)	-.01 (-.05, .009)	-.02 (-.06, .0008)	-.02 (-.05, .003)
Intention to drop out	414	Perceived exclusion	-.008 (-.07, .05)	-.02 (-.09, .04)	-.01 (-.08, .05)	-.01 (-.08, .05)
		Affective commitment	.03* (.0002, .08)	.02 (-.01, .07)	.03* (.0009, .08)	.02 (-.002, .07)
Well-being	415	Perceived exclusion	.00 (-.05, .06)	.01 (-.05, .08)	.005 (-.05, .06)	.007 (-.05, .06)
		Affective commitment	-.02 (-.05, .001)	-.01 (-.04, .009)	-.01 (-.05, .002)	-.02 (-.05, .002)

Note. Partially standardized indirect effects are reported according to 95% bias-corrected confidence intervals from 10,000 Bootstrap samples (BC 95% CI); indirect effects are considered significant if the BC 95% CI does not contain 0. Sample size is partly reduced because of missing values.

Table 4. Parallel multiple mediation analyses with perception of exclusion (a_1b_1) and affective commitment (a_2b_2) as parallel mediators ($M_{1,2}$) of the effect of general trust on academic success criteria and well-being (Y_n)

Criterion (Y_n)	N	Parallel mediators ($M_{1,2}$)	Indirect effect (BC 95% CI)	Indirect effect controlled for gender (BC 95% CI)	Indirect effect controlled for bachelor/master status (BC 95% CI)	Indirect effect controlled for first-semester status (BC 95% CI)
Study satisfaction (content)	423	Perceived exclusion	.04* (.01, .07)	.04* (.02, .07)	.05* (.02, .08)	.04* (.019, .07)
		Affective commitment	.04* (.002, .08)	.04* (.005, .09)	.04* (.003, .08)	.04* (.006, .08)
Study satisfaction (conditions)	423	Perceived exclusion	.03* (.01, .05)	.03* (.01, .06)	.04* (.01, .07)	.03* (.01, .06)
		Affective commitment	.04* (.001, .08)	.04* (.005, .08)	.03* (.004, .07)	.04* (.005, .08)
Study satisfaction (coping w. demands)	423	Perceived exclusion	.08* (.04, .12)	.08* (.04, .13)	.08* (.04, .13)	.08* (.04, .13)
		Affective commitment	.01* (.0003, .03)	.01* (.0007, .03)	.01* (.0004, .03)	.01* (.001, .03)
Intention to drop out	422	Perceived exclusion	-.07* (-.11, -.03)	-.07* (-.11, -.03)	-.07* (-.11, -.03)	-.07* (-.12, -.03)
		Affective commitment	-.02* (-.04, -.005)	-.02* (-.04, -.002)	-.02* (-.05, -.001)	-.01* (-.04, -.001)
Well-being	423	Perceived exclusion	.05* (.02, .09)	.06* (.02, .09)	.05* (.02, .09)	.05* (.02, .08)
		Affective commitment	.01 (-.0008, .03)	.01 (-.0002, .03)	.009 (-.001, .02)	.01* (.0002, .03)

Note. Completely standardized indirect effects are reported according to 95% bias-corrected confidence intervals from 10,000 Bootstrap samples (BC 95% CI); indirect effects are considered significant if the BC 95% CI does not contain zero. Sample size is once reduced because of a missing value.

sidering general trust as a predictor of well-being (hypothesis 6), we found a different picture: Only one of the mediators, namely, perception of exclusion, mediated the effect of general trust on the criterion. The relationship between general trust and well-being (total effect: .14, 95%-CI[.10, .19], $p = .000$, direct effect after entering the mediators: .11, 95%-CI[.07, .15], $p = .000$) is partially mediated by perception of exclusion (indirect effect .05, 95%-CI[.02, .09]).

When introducing gender, bachelor vs. master study program, and first-semester status as covariates, we found only slight differences. When the first-semester status is controlled for, we found a significant indirect effect of general trust on well-being through affective commitment (indirect effect: .01, 95%-CI[.0002, .03]).

Summary and Discussion

The present study investigated the mediating role of academic fit (perceived exclusion and affective commitment) within the relationship between two personal variables, namely, parents' educational attainment and general trust, and university students' subjective academic success and well-being. In accordance with prior findings (e.g., Bormann & Thies, 2019b; Fuller, 2014; White, 2014), lower general trust is linked with a stronger perception of exclusion (as an indicator of misfit). Furthermore, general trust significantly predicts study satisfaction and well-being.

Contrary to previous expectations, parents' educational attainment hardly corresponds with the students' subjective academic success and is connected only with one of the two fit variables (affective commitment). Higher educational attainment of parents is unexpectedly associated with *lower* affective commitment to the university (as an indicator of fit). An explanation for this finding could be that students from higher-educated families tend to struggle less with university life, while students from less-educated families intensify their affective commitment to cope with their perceived misfit with university life. Focusing on adjusting to the given institutional habitus of the university may prevent them from entertaining the perception of being a "fish out of water," as Reay et al. (2010) label it.

As hypothesized, perceived exclusion and affective commitment mediate the effect of students' general trust on academic success criteria. The comparison of the two mediators shows that the perception of exclusion is particularly potent in predicting satisfaction with coping with study demands and general well-being. Students who feel excluded are likely to have difficulties in actively

accessing students' networks – they could, however, benefit in terms of mutual support in study progress and sense of belonging (see also Frederiksen, 2012). Further, the mentioned relation between social exclusion, satisfaction and well-being is in line with research on exclusion in other spheres of life (e.g., for patients with psychiatric disorders, see Seidel et al., 2020; or people with intellectual disabilities, see Merrells et al., 2019). As a side effect, we found that general trust is slightly interlinked with educational background. Students from less-educated families seem to enter the university with a lower level of general trust. Previous studies pointed out that lower levels of trust make the transition to and successful integration into university life more difficult (Fuller, 2014; Bormann & Thies, 2019a). As a result, a misfit with university becomes more likely.

In summary, the findings suggest that students' perception of being excluded from what they think is relevant in the university is particularly critical for their subjective academic success. Appropriate interventions should focus on making a fit with the university more likely by supporting students in increasing and stabilizing their affective commitment to their university to reduce their perception of being excluded. This could be crucial for their well-being and, in the end, their academic success and should be monitored by longitudinal evaluations. Corresponding interventions for students are already available (Marksteiner et al., 2019; Walton & Cohen, 2011) which focus mainly on awareness of features fostering inclusion and overcoming a feeling of exclusion. The extension and further development of such programs could help students to meet both academic requirements and social challenges in their new environment. However, it should be evaluated in the future whether supply-oriented interventions, such as mentoring programs, or demand-driven interventions, such as individual study counseling, best reach the targeted groups.

Universities as institutions should not focus exclusively on student adaptation but should also change themselves and proactively take into account the growing heterogeneity of their students (Meulemann et al., 2014). This demand is in line with diversity management approaches that value heterogeneity and counteract exclusion phenomena (Linde & Auferkorte-Michaelis, 2014). Concerning the success of programs to raise the number of first-generation students, it is increasingly likely that the university faculty and staff themselves will be more heterogeneous, which in turn will probably slowly lead to universities becoming – in terms of their institutional habituses (e.g., including the manner of speaking and interacting) – even more welcoming and inclusive to first-generation students. Another suggestion for intensifying diversity management in universities is to clarify the

expectation structures of potential students, concerning both course content and university life (Hasenberg & Schmidt-Atzert, 2013).

Limitations and Future Directions

This study shows the special role of perception of exclusion and affective commitment for subjective academic success and well-being. However, some limitations deserve attention. First of all, limitations arise because of the nonrepresentative sample. In addition to associated generalization problems, a selection effect may have been present, so that students with a strong perception of exclusion may not have participated in the study, at all. The relatively low mean value on the exclusion scale could be interpreted accordingly. Thus, the systematic analysis of further sociodemographic variables (such as those used as covariates in the present study) would be useful to identify subgroups within the student population based on feature configurations.

The data presented were collected in a cross-sectional study, which is crucial in two respects: First, mediation analyses require causal assumptions. Parents' educational background and general trust are temporally upstream of the mediators and outcome variables, so that causal assumptions in this regard seem to be justified. Concerning the relationships between the mediators and the outcome variables, we must address that, although we followed substantial research directions, different conceptions are at least imaginable. Second, as assumptions about students' transitions and how they experience life at the university have a biographical implication, future research should also use longitudinal data to provide more evidence on how students develop a sense of fit or belonging. In addition to the subjective criteria of academic success, the connection between students' general trust, their perception of exclusion, and their affective commitment with objective academic performance should also be examined.

Last but not least, we have to address the less and unexpected impact of students' educational background (in contrast to large-scale assessments such as those by the OECD mentioned above). Typical measures of educational attainment (like those used here) are probably too broad to understand how students' background influences their biographies. To overcome this, one could go beyond including the parental education status and instead address further spheres of life, which are decisive for life satisfaction and an individual's social integration. For example, students' engagement in social networks as well as lifestyle variables (such as participation in cultural life) could be considered for inclusion. Doing so could provide

more specific information about how students are socially embedded and what resources they can benefit from when managing the transition to a new environment.

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