

**The Influence of Social Capital and Language Proficiency on the Sense of Belonging for  
International Students in Dutch Society and Their Feelings of Loneliness**

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### **Abstract**

Acculturating as an international student is a growing challenge for students choosing to study abroad, which requires further investigation of which factors influence an international student's sense of belonging to a new culture. Our study seeks to explore the influence of social capital (bonds and bridges) and language proficiency on the sense of belonging of international students to Dutch culture. It extends previous research by focusing on international students in the Netherlands, which introduces research on Dutch-speaking acculturation instead of only common English-speaking acculturation. We conducted a cross-sectional, online questionnaire measuring perceived quality and quantity of support of 134 international students by Dutch people (bridging), co-nationals (bonding), and other internationals (bonding). Furthermore, we measured the participants' Dutch language proficiency. Additionally, we measured their feelings of loneliness to investigate the relationship between sense of belonging and loneliness. In line with our hypothesis, the quality and quantity of support of Dutch people and Dutch language proficiency correlated with feelings of belonging. In contrast to our expectation, the quality and quantity of support of co-nationals and other internationals did not correlate with feelings of belonging. Feelings of loneliness also correlate with sense of belonging and loneliness furthermore can be significantly predicted by sense of belonging. Only support from Dutch people turns out to be a significant predictor of sense of belonging. More research is needed to further understand the underlying mechanisms of belonging of international students.

*Keywords:* belonging, social capital, language proficiency, loneliness, international students

## **The Influence of Social Capital and Language Proficiency on the Sense of Belonging for International Students in Dutch Society and Their Feelings of Loneliness**

Every year, many foreigners migrate to a new country. Their reasons for migration may vary, ranging from being forced to flee one's home country as a refugee, to seeking a better life as a migrant, to studying abroad as an international student. Each migration reason is accompanied by specific, individual challenges, and it is therefore important to establish multiple ways of alleviating the migration process. Research shows that factors like language proficiency and social ties play an essential role in the process of migrating and additionally contribute to a migrant's sense of belonging to the new culture (Nawyn et al., 2012). As past research has largely focused on the integration process of refugees and migrants, it is relevant to find out more about the process for international students. As a research paradigm, we focused on the migration progress of international students in the Netherlands. We want to gain insight into the influences of language proficiency and social capital on the sense of belonging for international students in Dutch society. Additionally, we furthermore want to study the relationship between feelings of loneliness and the sense of belonging of international students in the Netherlands.

### **Acculturation and Belonging**

As an international student, integrating into a foreign country and feeling socially connected to its culture can be difficult. The variety of adjustments international students are confronted with when assimilating to their new environment entails cultural differences, challenges with language, different academic procedures, isolation from family and friends, insufficient social integration, and difficulties succeeding in everyday-duties (Akhtar & Kröner-Herwig, 2015). This process of integrating and adapting to a new culture is also known as acculturation (Ezeofor, 2016). During this process, the various factors mentioned before influence how well an international student is able to acculturate or whether the factors

cause acculturative stress, which can adversely affect how an international student integrates into the new society (Franco et al., 2019). Acculturative stress is based on the stress and coping theory, which looks at how migrants, or in our case, international students, adapt to difficult life situations and engage in various coping techniques. Thus, acculturation can be beneficial (e.g., by providing opportunities for students to work or get an education) or disadvantageous (e.g., by exposing students to stressful events), which can lead to acculturative stress and be a sign that adaptive abilities are insufficient to support one's adjustment to a new culture (Singh et al., 2015).

One important aspect of acculturation is its relationship with feelings of belonging, as it is key to the acculturation process (Baumeister & Leary, 1995). Belonging can be defined as feeling connected to others (Cena et al., 2021). It is a person's sense of acceptance, worth, inclusion, and encouragement by others, as well as having a sense of self-importance in the other's life and their activities (Goodenow, 1993). A sense of belonging is characterized as a feeling of comfort, security, connectedness, and respect that emerges in daily life on both a personal level and, furthermore, connecting an individual to society (Ahn & Davis, 2020). Research shows that having a sense of belonging can help international students relieve stress as well as experience more positive circumstances (Gopalan, 2022). Additionally, a lack of belonging negatively influences a person's mental processes, which in turn may hinder integration both socially and academically.

### **Language Proficiency**

Acculturative stress is found to be negatively linked with language competence (Bai, 2016). This introduces the idea that language proficiency and the process of acculturating influence one another. Research shows that a lack of language proficiency may furthermore influence one's feelings of isolation from a community (Nawyn et al., 2012). For international students coming to the Netherlands, learning the Dutch language may be part of their

integration agenda. The question is whether international students prioritize learning Dutch when arriving in the Netherlands. Most international students study an English-speaking program and are therefore not required to learn the Dutch language for educational purposes. On the other hand, for social purposes, being able to speak Dutch may influence one's ability to form friendships and socialize with locals (Smith & Khawaja, 2011). Some people even report that they had to mentally go over sentences before verbalizing their intended statement, which leads them to withdraw certain emotions and feel intimidated early on in the assimilation process (Rivas et al., 2016). In studies for English-speaking competencies, it was found that the ability of international students to communicate in English enhances their self-esteem and is linked to better relationships with locals. Additionally, it is a predictor of their assimilation, like being capable of relating to locals (Smith & Khawaja, 2011).

### **Social Capital**

Forming bonds with local students, other international students, or students of the same cultural background can contribute to one's feelings of belonging to the new society (Glass & Gesing, 2018). One concept that can help explain this is social capital, which can be defined as sharing characteristics of social structures like networks, participation, and trust that help form collaboration for collective gain (Recker, 2013). Social capital can furthermore be divided into two types: bonds and bridges (Choi et al., 2011).

For our study, bonding social capital is composed of the similarity of members, such as sociodemographic features or shared norms and values (Nesa, 2017). For international students studying in the Netherlands, this includes contact with other international students of different cultural backgrounds or students of the same cultural background (co-nationals) and being supported by them (Hendrickson et al., 2011). We group them together because they share the similarity of all experiencing living and studying abroad in the Netherlands. Whilst studies show that bonding can help improve one's subjective well-being (Ng et al., 2013),

international students are more likely to report close friendships with co-nationals rather than with people from the host culture (Zhou, 2008). Overall, when assessing past research, it indicates that there are still some discrepancies regarding whether bonding with other internationals and co-nationals positively or negatively influences the acculturation process (McFaul, 2016). On the one hand, having these connections can provide the international student with a support system (Montgomery & McDowell, 2009). On the other hand, research reports that having these connections can also contribute to fewer feelings of belonging and less overall satisfaction (Hendrickson et al., 2011).

Bridging social capital for international students includes contact with local Dutch people and getting support from them (Hendrickson et al., 2011). Research shows that forming friendships is one of the key components of successful acculturation for international students (Hendrickson et al., 2011). Engaging in contact with students from the host country can be valuable to the sense of belonging of international students as it can help them adjust socially (McFaul, 2016). This includes both friendships with locals and other internationals. Furthermore, making friendships with local students can help international students adjust to their new home and learn about the new culture first-hand (Ng et al., 2013). Overall, interactions with students from the host country hold certain advantages. These include less academic challenges, less social problems, increased communication skills, and better overall adaptability to living abroad (Zhou, 2008).

### **Loneliness**

Feeling lonely has a higher likelihood of occurring when people are away from their homes for an extended period of time (Sawir et al., 2008). For students coming to study and live in another country, this phenomenon is therefore not unlikely to occur. Research shows that having friendships with locals can help reduce feelings of loneliness for international students (Smith & Khawaja, 2011). When the students' need to belong is not met, undesirable

feelings such as loneliness may arise (Sawir et al., 2008). Additionally, not belonging as a member of a group is associated with a higher likelihood of loneliness (Dingle et al., 2022). Therefore, in the context of studying in the Netherlands, not belonging to its culture may increase feelings of loneliness in international students. Furthermore, coming from different cultures and not being able to grasp one's differences can also create more feelings of loneliness (Rivas et al., 2019). The relationship between feelings of loneliness and belonging to Dutch culture may play an important role in the acculturation process of international students.

### **The Present Research**

In our study, we want to support the previous findings on the influences of international students and their sense of belonging to Dutch society. Firstly, we want to test whether language proficiency in the Dutch language influences the assimilation process of international students and, therefore, their sense of belonging. Furthermore, we want to test whether international students form more bonds with local students or with other international students and what the consequences are of their social capital on belonging to Dutch society. Lastly, we want to test how social capital influences feelings of belonging in international students. Therefore, we expect that: Higher Dutch language proficiency increases feelings of belonging (**H1**). Higher bridging social capital increases feelings of belonging (**H2**). Higher bonding social capital decreases feelings of belonging (**H3**). Higher feelings of belonging decrease feelings of loneliness (**H4**).

This paper will add to the existing literature in a number of ways. Firstly, we will look at different forms of social capital and their influence on belonging. Secondly, as most research is done in English-speaking countries, we will delve into the underlying mechanisms in the Netherlands. Thirdly, we will look one step further than just common language proficiency in English, but instead at another language of a non-English speaking country,



Dutch. Lastly, we will understand which factors may help alleviate the integration process for international students, specifically when studying in the Netherlands.

## Methods

### Participants

All of the subjects were international students studying at a university in the Netherlands. The participants were recruited either through convenience sampling or participated through a research participants practicum of the psychology curriculum of the University of Groningen. The latter participants received compensation for course credits. The voluntary participants did not receive any sort of compensation. Before the data obtained from the survey was analyzed, we examined if the responses from all participants met the necessary requirements. Of the 140 participants, six participants were excluded due to either being from the Netherlands or having lived less than six months in the Netherlands at the start of their participation in the study. As a result, the responses of 134 participants were included in the analysis. Of the 134 participants, 85 identified as female (59.7 %), 49 identified as male (36.6 %), three identified as other (2.2 %), and two preferred not to state their gender (1.5 %). The mean age of the participants was 21.7 years ( $SD = 2.26$ ). The age of the participants ranged from 18 to 30 years. The subjects were all international students have studied in the Netherlands. They were from countries all over the world, with most of them coming from Germany (57), Romania (6), Italy (6), Greece (5), Poland (4), and Lithuania (4)<sup>1</sup>.

### Materials and Procedure

The study was a cross-sectional, online questionnaire using Qualtrics. We received ethical approval from the ethics committee of Psychology in Groningen. The participants were provided with information about the study and had to provide informed consent. This

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<sup>1</sup> Albania (1), Austria (1), Brazil (2), Bulgaria (1), Canada (2), Croatia (1), Cyprus (1), Finland (2), France (2), Hong Kong (1), Hungary (2), India (2), Indonesia (3), Ireland (2), Jordan (1), Latvia (1), Moldova (1), New Zealand (1), Norway (1), Palestine (1), Russia (1), Singapore (1), Slovakia (3), Slovenia (1), South Africa (1), South Korea (1), Suriname (1), Sweden (3), Syria (1), and United States (3).

questionnaire was created for the purpose of this study. The constructs<sup>2</sup> measured are as follows:

### ***Control variables***

To control for the opportunity to actually proficiently learn the Dutch language, we included the control variable length of stay. To also take into account that during the Covid-19 pandemic, many international students traveled back to their home countries and did not end up spending time in the Netherlands itself, we included the control variable proportion of time spent in the Netherlands to measure the actual amount of time spent living in the Netherlands.

### ***Dutch language proficiency***

We assessed Dutch language proficiency using a Likert scale with five answer options asking the participant to judge how well they speak Dutch (e.g., not at all, a little bit, moderately well, very well, or extremely well).

### ***Social capital***

To assess social capital, we divided the variable into quantitative and qualitative parts in the questionnaire. The quantitative part consisted of three items and measured the frequency of contact a participant had individually with Dutch people, co-nationals, and other internationals, using a Likert scale with five answer options (e.g., never, sometimes, about half the time, most of the time, or always). The qualitative part consisted of nine items and measured the social support the participant experienced individually from Dutch people ( $\alpha = .88$ ), co-nationals ( $\alpha = .95$ ), and other internationals ( $\alpha = .93$ ) (Haslam et al., 2005). This time using a Likert scale with seven answer options asking the participant to share to what extent they agree or disagree with experiencing emotional support, help, and resources from the

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<sup>2</sup> This was part of a bachelor thesis project, and other variables were assessed, but this was beyond the scope of this paper.

three social groups (e.g., strongly disagree, disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, or strongly agree).

### ***Belonging***

Belonging was measured by using a Likert scale with seven answer options asking the participant to share to what extent they agree or disagree with feeling close to the Dutch, feeling sense of belonging to Dutch society, feeling accepted by the Dutch, feeling like they fit into Dutch society, and feeling connected with Dutch society (e.g., ranging from 1 (strongly disagree) to 5 (strongly agree)) (Yoon et al., 2012). Cronbach's alpha for the five belonging items was .90.

### ***Loneliness***

Feelings of loneliness were measured using the Loneliness scale, a six-item version (Gierveld & van Tilburg, 2006). The participant was provided with a Likert scale with five answer options asking the participant to share to what extent they agree or disagree with the following statements: I experience a general sense of emptiness; there are plenty of people I can rely on when I have problems; there are many people I can trust completely; I miss having people around me; There are enough people I feel close to; I often feel rejected (e.g., strongly disagree, disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, or strongly agree) ( $\alpha = .81$ ).

The questionnaire was estimated to take about fifteen minutes to complete and concluded with a serious check. Finally, the participants had the possibility to leave their contact information if they wished to receive more information about the study results when the thesis was completed. Apart from a possible debriefing after the study was finished, the participants did not receive any additional debriefing.

As pre-processing steps for the analysis, four variables had to be computed, including the belonging scale, support from Dutch people, support from co-nationals, and support from

internationals. All variables were computed by calculating the mean of the related items of the variable.

## Results

All statistical tests were performed in JASP (Version 0.13.1; JASP Team, 2020) and analyzed using IBM SPSS Statistics (Version 27) predictive analysis software. We tested the assumptions at the beginning of our analyses. The collinearity statistics show that all Variance Inflation Factors are below ten, and the tolerance scores are above .10, so the multicollinearity assumption is not violated. Furthermore, the residual vs. predicted graph shows that there is a balanced distribution of the residuals around the baseline, and the assumption of homoscedasticity is not violated. Additionally, the Q-Q plot shows that the standardized residuals fit along the diagonal line, and the assumptions for normality and linearity are not violated. All the assumptions were met (see Appendix).

### Correlational Analysis

A correlational analysis was carried out to analyze the data. Tables 1 and 2 show the descriptive statistics and correlations of each of the variables, respectively. In table 2, we can see that the significant correlations between the study variables are as follows. There is a positive correlation between sense of belonging and support from Dutch people,  $r(134) = .50$ ,  $p < .001$ . Furthermore, sense of belonging and quantity of contact with Dutch people are positively correlated,  $r(134) = .42$ ,  $p < .001$ . Additionally, sense of belonging and Dutch language proficiency are also positively correlated,  $r(134) = .31$ ,  $p < .001$ . As for the correlation between sense of belonging and feelings of loneliness, those variables are negatively correlated,  $r(130) = -.35$ ,  $p < .001$ . Finally, as for our controls, sense of belonging and proportion of time spent in the Netherlands correlated positively,  $r(134) = .37$ ,  $p < .001$ .

### Table 1

*Descriptive statistics for main variables*

| Variable                               | Mean  | Standard Deviation | Sample Size |
|--|-------|--------------------|-------------|
| Belonging in NL                        | 3.921 | 1.333              | 134         |
| Support from Dutch (quality)           | 4.164 | 1.426              | 134         |
| Support from Co-Nationals (quality)    | 5.062 | 1.535              | 134         |
| Support from Internationals (quality)  | 5.597 | 1.083              | 134         |
| Contact with Dutch (quantity)          | 2.26  | .996               | 134         |
| Contact with Co-Nationals (quantity)   | 3.10  | 1.408              | 134         |
| Contact with Internationals (quantity) | 3.97  | .925               | 134         |
| Dutch Language Proficiency             | 1.87  | .945               | 134         |
| Loneliness                             | 2.531 | 1.966              | 130         |
| Proportion of Time spent in NL         | 4.04  | .745               | 134         |

**Table 2**

*Pearson's correlations displayed pairwise*

|                 |  | Pearson's r | p      |
|-----------------|--|-------------|--------|
| Belonging in NL | - Support from Dutch (quality)           | .496        | < .001 |
| Belonging in NL | - Support from Co-Nationals (quality)    | .014        | .871   |
| Belonging in NL | - Support from Internationals (quality)  | .041        | .642   |
| Belonging in NL | - Contact with Dutch (quantity)          | .424        | < .001 |
| Belonging in NL | - Contact with Co-Nationals (quantity)   | -.029       | .742   |
| Belonging in NL | - Contact with Internationals (quantity) | .054        | .534   |
| Belonging in NL | - Dutch Language Proficiency             | .308        | < .001 |
| Belonging in NL | - Loneliness                             | -.350       | < .001 |
| Belonging in NL | - Proportion of Time spent in NL         | .370        | < .001 |

### Regression Analysis

Our hypotheses were whether higher Dutch language proficiency and higher bridging social capital increase feelings of belonging to the Dutch culture and higher bonding social

capital decreases feelings of belonging to the Dutch culture. Multiple linear regression was used to test if Dutch language proficiency, support from Dutch people, and frequency of contact with Dutch people significantly predict a sense of belonging of international students to Dutch culture, whilst first controlling for the proportion of time spent in the Netherlands. Since bonding social capital was not linearly correlated with belonging, we chose to exclude those variables from our regression model.

The fitted regression model was significant when controlling for the proportion of time spent in the Netherlands,  $R^2 = .137$ ,  $F(1, 132)$ ,  $p < .001$ . The overall regression including the proportion of time spent in the Netherlands, support from Dutch, contact with Dutch, and Dutch language proficiency, was statistically significant in predicting sense of belonging,  $R^2 = .372$ ,  $F(4, 129)$ ,  $p < .001$ . Table 3 shows the coefficients of the variables included in the regression model. It can be seen that only support by Dutch added significantly to the prediction of sense of belonging,  $p < .001$ . Both frequency of contact with Dutch people and Dutch language proficiency did not significantly add to the prediction of sense of belonging.

**Table 3**

*Coefficients of regression model*

| <b>Variable</b>                | <b>B</b> | <b>Standard Error</b> | <b>t-value</b> | <b>p</b> |
|--------------------------------|----------|-----------------------|----------------|----------|
| Proportion of Time spent in NL | .441     | .136                  | 3.253          | .001     |
| Support from Dutch (quality)   | .351     | .073                  | 4.822          | < .001   |
| Contact with Dutch (quantity)  | .172     | .113                  | 1.518          | .131     |
| Dutch Language Proficiency     | .182     | .105                  | 1.737          | .085     |

My individual hypothesis was that higher feelings of belonging decrease feelings of loneliness. A simple linear regression was used to test if belonging significantly predicts feelings of loneliness. Sense of belonging explained a significant amount of the variance in sense of loneliness,  $R^2 = .123$ ,  $F(1, 128)$ ,  $p < .001$ . The regression coefficient ( $\beta = -.523$ ,  $p <$

.001) indicated that an increase in one sense of belonging point corresponds, on average, to a decrease in sense of loneliness score of .523 points. The direction of the effect of belonging on loneliness is negative.

### **Discussion**

We researched with our study whether social capital and Dutch language proficiency influence the sense of belonging for international students in the Netherlands. Our results suggest significant positive correlations between the variables belonging and Dutch social support, belonging and frequency of Dutch contact, and belonging and Dutch language proficiency. Furthermore, our results suggest a significant regression model. Whilst controlling for the variable proportion of time spent in the Netherlands, only the independent variable Dutch social support showed a significant addition to our dependent variable belonging. With these findings, we strive to shed light on some of the important aspects that can help international students acculturate better to their new living environment.

Our first hypothesis was that higher Dutch language proficiency increases feelings of belonging. As expected, Dutch language proficiency is significant in positively correlating with belonging. However, Dutch language proficiency is not a significant predictor of the sense of belonging of international students when jointly considered with the other independent variables. This assumption was based on previous findings, which suggested that a lack of language proficiency encourages one's feelings of isolation from a community (Nawyn et al., 2012). We expected that being able to communicate in Dutch may enhance one's confidence in conversing with locals and therefore let the student engage more closely with the Dutch community and culture (Smith & Khawaja, 2011). Because of this, we hypothesized that international students with higher Dutch language proficiency more actively participate in Dutch culture and therefore enhance their sense of belonging to it. Unfortunately, this only seems to be partly true. Whilst there seems to be a positive

relationship between Dutch language proficiency and belonging, it is not strong enough to say that we can predict higher belonging from higher Dutch proficiency. One possible explanation for this outcome could be our focus on Dutch language proficiency instead of English language proficiency. Previous research has mainly focused on international students' abilities to proficiently speak English as a measure of acculturation, whereas our study researched the language proficiency of a non-English speaking host culture. This may have introduced another aspect of the acculturation process of an international student's sense of belonging. This non-significant result may have emerged because previous studies focused only on English-speaking proficiency and can therefore not be transferred to Dutch-speaking proficiency. The results of our study suggest that whilst there is a relationship between Dutch language proficiency and belonging, it does not predict higher belonging to Dutch culture when having higher levels of Dutch proficiency.

Our second hypothesis was that higher bridging social capital increases feelings of belonging. We furthermore divided bridging social capital into social support from Dutch people (quality) and frequency of contact with Dutch people (quantity). As expected, both Dutch social support and Dutch contact have a significant positive correlation with belonging. However, only Dutch social support was a significant predictor of the sense of belonging of international students when jointly considered with the other independent variables, not Dutch contact. We made this assumption because previous findings suggested that being in frequent contact with people of the host culture may add to one's sense of belonging and, furthermore help international students to adjust better (McFaul, 2016). We expected that forming friendships with Dutch people could provide support for international students to adapt to living in the Netherlands and learn about Dutch culture directly (Ng et al., 2013). Because of this, we hypothesized that international students with higher bridging social capital more actively participate in Dutch culture and therefore have an enhanced sensation of belonging to



it. Whilst there seems to be a positive relationship between both Dutch social support and Dutch contact with belonging, only Dutch social support can predict higher belonging. This might be due to the possibility that mere exposure and interaction with Dutch people is enough to create a positive relationship with belonging, but it is not enough to predict it. Additionally, it is supported by previous studies that genuine social support, where an international student feels that they can connect with and count on their Dutch friends, creates an even stronger sense of belonging than only mere contact and can even predict the degree of belonging (Ng et al., 2013). A possible other explanation for the significance of perceived social support by Dutch people is that actively surrounding yourself with Dutch people opens up the possibility to learn about Dutch culture firsthand and increase one's sense of understanding it and belonging to it. Overall, our results suggest that they are in line with previous findings that forming friendships with people from the host country can hold certain advantages (Zhou, 2008). Specifically, Dutch social support can be used as a predictor of the sense of belonging of international students to Dutch culture.

Our third hypothesis was that higher bonding social capital decreases feelings of belonging. We categorized both co-nationals and other international students under bonding social capital and furthermore divided them into perceived social support (quality) and frequency of contact (quantity). Unfortunately, this finding was not supported by our results, and it can be said that bonding social capital does not decrease feelings of belonging amongst international students. Similar to past research, findings there have been both supportive and not supportive. On the one hand, research shows that bonding social capital can help create a support system, but we also did not find a positive effect for social support of co-nationals or other international students, so this finding was not supported either (Montgomery & McDowell, 2009). On the other hand, findings suggested that higher bonding social capital contributed to fewer feelings of belonging to the new culture, but this finding was also not

supported, as there was no negative relationship to be found (Hendrickson et al., 2011). As the past findings already seem to be inconsistent on the relationship between bonding social capital and belonging, it does not come by surprise that our findings turn out to be not significant as there have been similar findings to be not significant before. A possible explanation for this effect is that it has differing effects in different circumstances, meaning that it can have a positive effect in some circumstances and a negative effect in other circumstances. This would then lead us to not find a general effect overall. Our results suggest that there is no relationship between bonding social capital and the belonging of international students to Dutch culture. Lastly, there were no significant results showing that higher bonding social capital decreases the sense of belonging.

Additionally, I hypothesized that higher feelings of belonging decrease feelings of loneliness. As seen in the results, a sense of belonging and feelings of loneliness have a significant negative correlation. Furthermore, a sense of belonging is a significant predictor of the sense of loneliness of international students. This finding can be supported by the aspect that belonging is the sensation of connectedness, whilst loneliness is the absence of connectedness (Ahn & Davis, 2020). Because of this, when a higher sensation of connectedness is present, a lower sensation of connectedness should be difficult to present at the same time. A possible explanation for this effect is that when an international student feels like they belong to the new culture, they also experience support from the culture itself and students from that culture, which can then help decrease feelings of loneliness (Smith & Khawaja, 2011). Furthermore, this finding highlights the importance of integration and connecting with the host society as beneficial for mental health (Gopalan, 2022).

### **Limitations**

Even though this study helped shed light on the acculturation process and its underlying mechanisms, the study had some limitations that need to be addressed. Firstly, it

needs to be taken into account that part of the analyzed data covered time frames when the Covid-19 pandemic was still very active. This will have had an impact on the extent to which international students were physically incapable of engaging in both bridging and bonding activities. As normal activities where you form relationships were restricted by the government. Secondly, it needs to be addressed how much motivation both international students have to get close to either Dutch people or co-nationals and other internationals, as well as the motivation of Dutch people, to have contact with international students. Motivation might be a mediating variable that determines the amount of contact each party seeks and, therefore should be taken into account (Próspero & Vohra-Gupta, 2007). Thirdly, our sample was made up of almost half of German students, and furthermore, a majority of the participants were psychology students. This may not have been very well representative of all international students and it would be important to conduct another study with a more balanced sample of international students origins with a balanced study program selection. This way, the results will be better at using them to generalize to the population. Lastly, a possible explanation for why we did not find more effects might be due to the study being underpowered. As our sample consisted of 134 participants, it might help to collect a bigger sample in order to potentially increase the power of our study.

The limitations of our study tell us that the results need to be validated by further investigations and that more variables should get researched as well.

### **Suggestions for future research**

An interesting possible future study suggestion would be to explore the relationship between social capital and personality traits. Existing research suggests that there is a relationship between certain personality traits and a person's likelihood to engage in social contact (Tulin et al., 2018). This finding may indicate that personality traits could be a possible mediating variable for the relationship between social capital and sense of belonging.

Another possible future research suggestion would be to furthermore explore what factors limit or enhance Dutch people to engage with international students and how they can be more helpful in creating an easier acculturation process for international students. As mentioned already in the limitations of our study, one possible mediating factor for this could be motivation ((Próspero & Vohra-Gupta, 2007). As many international students only come to study in the Netherlands temporarily, Dutch people may lack motivation to put in effort in helping the international students acculturate as they know that they will leave again eventually. This may play a mediating role in the extent to which there is a possibility of social capital between Dutch people and international students.

### **Conclusion**

To conclude, our study adds to the existing literature that researches the influencing factors contributing to the acculturation process of international students. Our study found that Dutch language proficiency, contact with Dutch people, and perceived social support of Dutch people significantly correlated with feelings of belonging of international students. Furthermore, feelings of belonging can predict feelings of loneliness in international students. In general, only social support from Dutch people can be a significant predictor of the sense of belonging of international students. In the future, our findings should be replicated and furthermore mediating variables should be researched.

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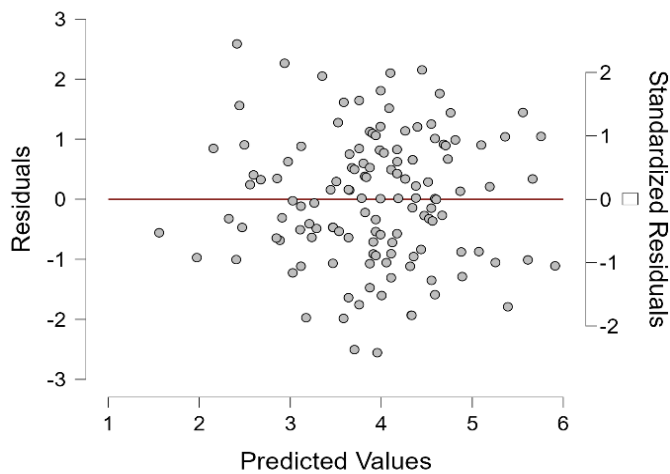
**Appendix**

**Assumption Checks**

*Collinearity Statistics - Multicollinearity*

|                                | <b>Tolerance</b> | <b>VIF</b> |
|--------------------------------|------------------|------------|
| Proportion of Time spent in NL | .849             | 1.178      |
| Support by Dutch (quality)     | .802             | 1.248      |
| Contact with Dutch (quantity)  | .683             | 1.464      |
| Dutch Language Proficiency     | .880             | 1.137      |

*Residual vs Predicted Graph - Homoscedasticity*



*Q-Q Standardized Residuals Plot - Normality and Linearity*

