

**Social Contacts, Dutch Language Proficiency, and Belonging among
International Students in the Netherlands**

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Abstract

Due to the significant increase of international students at universities in Europe, the study of how they integrate into a new culture and, ultimately, their feelings of belonging to their host society is of utmost importance. To advance understanding of which factors influence belonging, we conducted a cross-sectional study to explore the impact of bridging/bonding social capital and Dutch language proficiency on the sense of belonging to the Dutch society of international students in the Netherlands. Additionally, we investigated the mediating role of Dutch language proficiency between linguistic distance and sense of belonging to the Dutch society. We recruited 134 participants who were international students at a Dutch university. They were surveyed through an online questionnaire measuring several constructs including Dutch language proficiency and frequency/quality of contact with Dutch individuals, international, and co-national students. Although the independent variables Dutch language proficiency, frequency of talking to Dutch individuals, and perceived support from Dutch individuals were significantly correlated with sense of belonging, multiple regression analyses showed that only perceived support from Dutch individuals significantly predicted feelings of belonging. Moreover, we found that the total and indirect effects of the mediation model were statistically significant while the direct effect was not. Our results enable us to conclude that it is crucial to make an effort to build meaningful relationships with members of the host community to integrate and feel like one belongs.

Keywords: Sense of belonging, Dutch language proficiency, bridging social capital, bonding social capital, linguistic distance

Social Contacts, Dutch Language Proficiency, and Belonging among International Students in the Netherlands

Starting university is a significant and challenging event in the life of many young individuals. The transition into this stage of life may be even more challenging when students decide to move to and study in another country than they were born and raised (Brunsting et al., 2021). Despite the additional challenges which come with studying abroad including managing new cultural values and norms, possible difficulties with differing languages, and lack of support from family and friends (Slaten et al., 2016), the number of international students in Europe has been increasing in the past years (Eurostat, 2022). Whether an international student will eventually feel like they belong to the host community and even call the host country their home, depends on various aspects of which several will be discussed in the following paragraphs.

In the past decades, an abundance of research investigated the process of the psychological, social and cultural changes which individuals or groups experience when they are exposed to foreign cultures, better known as acculturation (Ward, 2001). A crucial aspect when exploring acculturation is how individuals change in their attitudes, values, identity, and feelings towards their host country and if they eventually develop a sense of belonging towards it (Slaten et al., 2016). Sense of belonging was described by Strayhorn (2018) as the perception of being valued, accepted, and cared for by members of the host society. Moreover, feelings of belonging are essential for a successful integration into the society and are associated with higher levels of well-being and less mental health issues over time (Slaten et al., 2016; Wessendorf & Phillimore, 2019). Consequently, the study of the sense of belonging and its associated variables is of central importance when studying the process of acculturation and integration. A variety of variables and their influence on the sense of

belonging have been examined in the past years. However, at the current moment still little is known about which aspects of interpersonal relations are crucial in promoting a sense of belonging (Renzaho et al., 2017). Nevertheless, two variables which have been found to be influential in fostering a sense of belonging are social capital and language proficiency (Ward, 2001). Due to the reason that traditionally the study of sense of belonging was dominated by research regarding immigrants and refugees but neglected international students, in this paper we will investigate how different forms of social capital and Dutch language proficiency relate to the sense of belonging to the Dutch society of international students in the Netherlands. Additionally, we will analyze the mediating role of Dutch language proficiency between linguistic distance and sense of belonging.

Social Capital and Sense of Belonging

Although social capital has been of interest in research in the last four decades, there has been a lack of agreement on its definition. Lin et al. (2001) have given a fundamental definition of social capital which is accepted by the majority of researchers in this field. They defined social capital as an “investment in social relations with expected returns” (Lin et al., 2001). Since we focus on social capital in the context of international students coming to the Netherlands, we will concentrate on two relevant aspects: social bonds and social bridges. In our study, we define social bonds as the social relations formed with other international and co-national students and social bridges as the social relations formed with members from the Dutch society. Both variables have been found to be important factors when evaluating belonging to the host society but also to the own minority group (Kende et al., 2021). There has been ample research regarding social relations and their significance for immigrants, refugees and international students (e.g. Brunsting et al., 2021; Slaten et al., 2016; Wessendorf & Phillimore, 2019). Although the effects of social bonds and social bridges are highly

debated, research has pointed out that both can be relevant in developing a sense of belonging, establishing social connections and thereby facilitating integration (Ager & Strang, 2008; Slaten et al., 2016).

According to the contact hypothesis, intergroup contact can reduce prejudice and discrimination between both groups (Ward, 2001). Therefore, it is plausible that social bridges are important for individuals to belong to/integrate into a different culture. Nevertheless, social contact with members of the host community may have positive, neutral or negative effects on individuals depending on the experience of the contact (Kende et al., 2021). In a study conducted by Kende et al. (2021), the researchers investigated how different experiences with intergroup contact influences their sense of belonging to the host society. They found that immigrant-origin students in Belgium who experienced more positive intergroup contact and less discrimination reported more sense of belonging to the host society. However, unequal treatment and discrimination by domestic students had opposite effects. When the immigrant-origin students experienced discrimination in intergroup contact, feelings of belonging decreased. Similarly, van Vemde et al. (2021) reported that in a study which investigated the association between intergroup contact in the classroom and sense of national belonging in the Netherlands, positive contact with domestic students was positively correlated with sense of belonging. In addition, several studies have pointed out that social support from domestic students is linked to higher levels of belonging in international students (e.g. Brunsting et al., 2021). In summary, the large majority of research found evidence for the positive association between bridging social capital and feelings of belonging. In line with those findings, we predict the following:

Hypothesis 1. Higher bridging social capital with Dutch individuals increases feelings of belonging to the Dutch society of international students.

The interpretation of the impact of social bonds on sense of belonging is not as straightforward as for social bridges. Generally, findings of past research regarding social bonds and its effects on sense of belonging have been mixed. On the one hand, research showed that social bonds can have a positive impact on various aspects of acculturation including developing a sense of belonging. Social bonds are important because they ensure maintenance of cultural practices and family connections. Moreover, they can be crucial in feeling settled and positively influence successful integration (Ager & Strang, 2008). In agreement with the positive impact of social bonds, Slaten et al. (2016) found in a qualitative study about Asian international students in the USA that contact with other international students was associated with higher levels of sense of university belonging. Likewise, Wessendorf and Phillimore (2019) reported that social bonds may help with emotional stability. On the other hand, social bonding capital is often regarded as lacking in influence or even hindering the integration process and developing a sense of belonging to the host country. Social bonds can strengthen one's own group identity which could come at the cost of developing ties with members from the host community (Putnam, 2000; van der Meer, 2016). In line with this reasoning, Hendrickson et al. (2011) claimed that social bonds can lead to homesickness and negatively affect language learning. Moreover, a study by Brunsting et al. (2021) found no effect for international students receiving support from other international and co-national students for developing a sense of belonging. Despite the lack of clarity of the influence of social bonds on sense of belonging, we predict the following:

Hypothesis 2. Higher bonding social capital with other international and co-national students decreases feelings of belonging to the Dutch society of international students.

Language Proficiency and Sense of Belonging

When moving to a foreign country, being able to communicate to members of the host country is an essential part of the acculturation process (Ager & Strang, 2008; Nawyn et al., 2012). Depending on the country and the cultural and social circumstances, it may be necessary to learn the language of the host country (e.g. Dutch) to be able to communicate properly with members of the host society. However, in some countries it may also be sufficient to be proficient in a more universal language (e.g. English) to make connections. Lack of adequate language skills may lead to issues with daily social encounters such as communicating with other students, healthcare providers or work colleagues (Nawyn et al., 2012; Ward, 2001). Furthermore, it may not only have a direct influence on the sense of belonging of international students but also through influencing the ease of establishing social bridges (Ager & Strang, 2008; Ward, 2001). Higher language proficiency is associated with several benefits for immigrants such as higher socioeconomic status or better employment prospects (Nawyn et al., 2012). Moreover, it enables individuals to interact with members of the host society and influences quality and quantity of social bridges (Nawyn et al., 2012; Ward, 2001). For instance, Barratt & Huba (1994) found a positive relationship between English proficiency of international students in the USA and forming social bridges with members of the host society. Therefore, higher linguistic capital can be seen as an essential requirement to have access to the host community and it facilitates social and academic adjustment (Crowther, 2020; Ward, 2001).

On the contrary, lack of language proficiency of the host language can have negative implications and can lead to isolation and feelings of loneliness. Individuals who are not as fluent in the host language may be seen as inferior to individuals who have high language skills (Nawyn et al., 2012). Moreover, low levels of language proficiency and speaking with a

foreign accent is associated with linguistic racism and exclusion. Consequently, low language proficiency is linked with risk of discrimination and developing of a sense of non-belonging to the host society (Dovchin, 2020). Other researchers have argued that language proficiency is not necessarily correlated with a sense of belonging to the host society but rather enables an individual to explore the host culture more freely (Li, 2015). In agreement with the majority of the research findings, we predict the following:

Hypothesis 3. Higher Dutch language proficiency increases feelings of belonging to the Dutch society of international students.

Language Proficiency as a Mediator between Linguistic Distance and Sense of Belonging

As the evidence for the impact of language proficiency on integration is substantial, the question arises which factors influence language proficiency and its acquisition. One of the major influential variables which has been shown to be relevant in determining the ease or difficulty of learning a foreign language is linguistic distance (Chiswick & Miller, 2005; Van der Slik, 2010). Linguistic distance can be defined as to what degree two distinct languages differ (Paradis, 2011). Generally, past research found that smaller dissimilarity between the native language and the second language is associated with faster language acquisition of the second language (Paradis, 2011; Schepens et al., 2016; Van der Slik, 2010). Therefore, as delayed language acquisition may hinder the building of social bridges with members of the host community, the linguistic distance of one's native language and the language of the host country may be an important determinant of one's sense of belonging (Paradis, 2011).

Nevertheless, research regarding the direct link between linguistic distance and sense of belonging is relatively limited. One of the few studies which investigated this relationship was conducted by Borgonovi and Ferrara (2020) and the results of the study did not show an influence for the sense of belonging of non-native-speaking immigrant students. Therefore,

we can conclude that the association between linguistic distance and sense of belonging currently is poorly understood and needs further examination.

Although linguistic distance has been of little interest in the context of sense of belonging, we believe that this association should not be neglected. Moreover, as there is evidence for the association of linguistic distance and language proficiency, the latter variable should not be disregarded when examining the association between linguistic distance and sense of belonging. Although the role of language proficiency as a mediator between linguistic distance and sense of belonging yet has not been investigated, we suspect that besides the direct effect between linguistic distance and sense of belonging, there is a significant indirect effect of language proficiency on the relationship between linguistic distance and sense of belonging. Therefore, we predict the following:

Hypothesis 4. Dutch language proficiency mediates the association of linguistic distance and sense of belonging to the Dutch society of international students.

The Current Study

With the current study we aim to expand the current state of knowledge and examine the influence of several variables on the sense of belonging. Previous research has already investigated the impact of social capital and language proficiency on the sense of belonging but has focused mainly on immigrants and refugees. Consequently, this study brings more awareness to international students in the Netherlands who may differ significantly from the other two groups. Besides, we decided to investigate both bridging and bonding social capital since research regarding belonging rarely distinguishes between different forms of social capital. Additionally, we investigate the mediating role of language proficiency on the relationship between linguistic distance and sense of belonging which has not been investigated earlier. Furthermore, research in this area was mostly conducted in English

speaking countries. As a result, we believe it is important to expand research to other countries where English is not the primary language and different cultural and social backgrounds exist. Finally, investigation of sense of belonging has mainly been conducted qualitatively. Although we acknowledge the value of qualitative studies in this field of research, we also see a lack of quantitative studies.

Methods

Participants

All of the subjects were international students studying at a university in the Netherlands. The participants were recruited either through the researchers' private social networks or as part of a research practicum at the University of Groningen. The latter part of the participants were compensated with 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. From 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 time of their participation in the study. As a result, the responses of 134 participants were included in the analysis. Of the 134 participants, 80 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 with $SD = 2.261$ and a range from 18 to 30. Regarding the origin of the subjects, 57 participants indicated they come from Germany (42.5 %), seven from Romania (5.2 %), seven from Italy (5.2 %), five from Greece (3.7 %), four from England (3.0 %), four from Poland (3.0%), and four from Lithuania (3.0 %). The rest of the participants indicated

that they are from one of 29 other countries.¹ Similarly, 57 of the participants regarded their native language as German (42.5 %), 23 as English (17.2 %), six as Romanian (4.5 %), six as Italian (4.5 %), six as Greek (4.5 %), four as Polish (3.0%), and four as Lithuanian (3.0 %). Moreover, 18 other languages were represented in the sample.²

Materials & Procedure

This cross-sectional study was conducted through the use of an online questionnaire which was created by using Qualtrics. The questionnaire was developed through the collaboration of two separate bachelor research projects from the psychology department of the University of Groningen. Due to the collaborative design of the questionnaire, not all the constructs measured in the questionnaire were used for both projects. The study was examined by the ethics committee of psychology in Groningen and received ethical approval. Besides, the questionnaire was designed to be completed within ten to fifteen minutes. Prior to their participation, the participants received a recruitment text with basic information about what the research will entail and a link to access the online questionnaire. Once they began the survey, they were provided with more information including the motive for conducting the study, their rights and consequences of participating in the study, and how their data will be treated. Moreover, they received contact information in case they had questions or concerns during and/or after the research. In the following step, they were asked for their informed consent regarding their participation and processing of the data. Afterwards, the participants were able to complete the rest of the questionnaire. Finally, they had to answer a seriousness

¹ Remaining countries: Albania, Austria, Brazil, Bulgaria, Canada, Croatia, Cyprus, Finland, France, Hong Kong, Hungary, India, Indonesia, Ireland, Jordan, Latvia, Moldova, New Zealand, Norway, Palestine, Russia, Singapore, Slovakia, South Africa, South Korea, Suriname, Sweden, Syria, USA

² Remaining languages: Albania, Arabic, Cantonese, Croatian, Dutch, Finnish, French, Hindi, Hungarian, Indonesian, Korean, Latvian, Norwegian, Portuguese, Russian, Slovak, Slovenian, Swedish

check and had the possibility to leave their contact information if they wished to receive more information about the study results when the research project is completed. Apart from a possible debriefing after the study was finished, the participants did not receive any additional debriefing.

Demographic variables

The demographic variables included *gender*, *age*, *location*, *university*, *nationality*, and *native language*. *Gender* was assessed by indicating one of four options: male, female, other, and prefer not to say. *Nationality* was assessed by indicating one of the most represented nationalities at the University of Groningen: Germany, England, Romania, Italy, and China. If the participants' nationality differed from those options, they had the option to specify their nationality. Similarly, native language was assessed by indicating one of the corresponding languages spoken in those countries. The remaining variables were assessed by open questions.

Control variables

The control variables included *length of stay in the Netherlands*, *proportional time spent in the Netherlands*, and *intention to stay in the Netherlands*. First, *length of stay in the Netherlands* was included to control for differing durations the participants had to learn the Dutch language, develop social contacts with Dutch individuals and international and co-national students, and develop a sense of belonging. The variable was assessed by indicating the year of arrival in the Netherlands. On average the participants arrived in the Netherlands 2.130 years ago ($SD = 1.297$). Second, *proportional time spent in the Netherlands* was included to control for the different proportions of time international students spent in the Netherlands during the corona pandemic. The variable was assessed by indicating the proportion of time on a 5-point scale from *Never* to *Always*. Regarding the

descriptives, the mean response was $M = 4.045$ ($SD = 0.745$). Third, *intention to stay in the Netherlands* was included to differentiate between international students who intend to stay temporarily or permanently. This is relevant because international students who only want to stay until they finish their studies might have different motivations to integrate than international students who plan to stay for a longer period. The variable was assessed by asking if the participants intend to stay in the Netherlands after finishing their studies. The response options were *Yes*, *No*, and *I do not know yet*. Of the 134 participants, 21 indicated that they intend to stay, 42 indicated that they do not intend to stay, and 71 indicated that they do not know yet.

Independent variables

The independent variables included *Dutch language proficiency*, *frequency of contact*, and *quality of contact/social support* with Dutch individuals, international students, and co-national students. First, *Dutch language proficiency* was assessed by asking the participants how well they speak Dutch on a 5-point scale from *Not at all* to *Extremely well*. The mean response was $M = 1.873$ ($SD = 0.945$).

Second, the *frequency of contact* was assessed by asking the participants how often they talk to each of the three groups in one day on a 5-point scale from *Never* to *Always*. The mean response for contact with Dutch individuals was $M = 2.261$ ($SD = 0.996$), contact with co-nationals was $M = 3.097$ ($SD = 1.408$), and contact with international students was $M = 3.970$ ($SD = 0.925$).

Third, *quality of contact/social support* of the three groups was assessed by using an adapted version of the 7-point Likert scale from Haslam et al. (2005) with one item per group. The mean response for support from Dutch individuals was $M = 4.164$ ($SD = 1.426$), support from co-nationals was $M = 5.062$ ($SD = 1.535$), and support from international students was

$M = 5.596$ ($SD = 1.082$). Regarding the reliability of the three scales, the Cronbach's alpha for support from Dutch individuals was 0.876, for support from co-nationals was 0.953, and for support from international students was 0.926.

Dependent variables

The dependent variable *sense of belonging to the Dutch society* was assessed by an adapted version of the 7-point Likert scale *Social Connectedness in Mainstream Society (SCMN)* scale developed by Lee and Robbins (1995) with five items. The mean response for sense of belonging was $M = 3.921$ ($SD = 1.333$). Regarding the reliability of the scale, the Cronbach's alpha for sense of belonging was 0.900.

Linguistic distance

Linguistic distance was assessed by the 7-point Likert *Brief Perceived Cultural Distance Scale (BPCDS)* by Demes and Geeraert (2014) with which we investigated the participant's perception of differences between their home country and the Netherlands. The scale has 12 items and a Cronbach's alpha of 0.940. More specifically, linguistic distance was measured by asking the participant's about their perception to what extent their native language differs to Dutch. The mean response for linguistic distance was $M = 4.075$ ($SD = 1.838$).

Results

In order to analyze the data from the online questionnaire, we used the open-source statistics program JASP. Therefore, we first tested the assumptions for the regression analysis. Following, we examined the correlations of the control and independent variables with the DV to identify the significant correlations. Afterwards, we conducted a regression analysis of the variables with significant correlations with the DV to test our hypotheses. Additionally, we conducted a mediation analysis to test our fourth hypothesis.

Assumption test

Before we were able to conduct a regression analysis, we needed to test if the assumptions were met. First, as the relevant IVs and DV are of continuous nature, the first assumption is met. Second, the assumption of linearity between the IVs and the DV and the assumption of homoscedasticity can both be tested by plotting residuals versus predicted values (*Figure 1* in the appendix). Additionally, we examined the Q-Q-Plot (*Figure 2* in the appendix). As no deviations in the graphs were present, we can conclude that both assumptions are met. Third, the assumption of collinearity can be checked by examining the variance inflation factors (VIF) for the IVs. The VIFs for all of our four IVs were between 1.137 and 1.464. Therefore, there is no relevant multicollinearity in our data. Fourth, the independence of observation can be tested by taking a look at the Durbin-Watson statistic which is 2.129. Fifth, there are no cases which have a standard residual greater than 3 or Cook's distance greater than 3. Therefore, there are no influential cases potentially biasing our model. In conclusion, all of the assumptions for the regression analysis are met.

Correlational analysis

As can be seen in *Table 1* in the appendix, there are one control variable and three IVs which are correlated significantly with the DV. First, *proportional time spent in the Netherlands* was positively correlated with sense of belonging, $r(132) = .370, p < .001$. Second, *Dutch language proficiency* was positively correlated with sense of belonging, $r(132) = .308, p < .001$. Third, the *frequency of talking to Dutch individuals* was positively correlated with sense of belonging, $r(132) = .424, p < .001$. Fourth, the *perceived support from Dutch individuals* was positively correlated with sense of belonging, $r(132) = .496, p < .001$. Additionally, *perceived linguistic distance* had a significant negative correlation with *Dutch language proficiency* ($r(132) = -.26, p < .01$) and sense of belonging ($r(132) = -.229, p < .01$).

The remaining variables were not significantly correlated with the DV ($p > .05$) and thus were not included into the regression model. Therefore, we can already conclude that the second hypothesis is not supported because both *frequency of talking to international and co-national students* and *perceived support from international and co-national students* were not significantly correlated with sense of belonging.

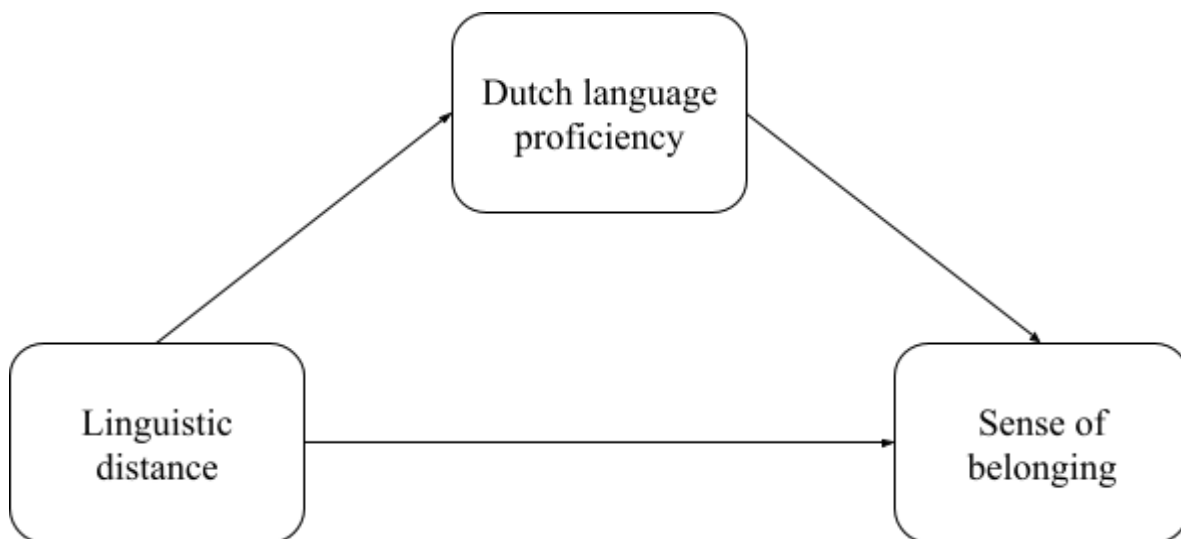
Inferential analysis

In order to determine to what extent the significant control variable and IVs predict the *sense of belonging*, we chose to perform a multiple regression analysis. First, we only included the control variable *proportional time spent in the Netherlands* in the regression model to see if the model is still significant even if we control for this variable. The fitted regression model was: *Sense of belonging to the Dutch society* = $1.240 + 0.663 * (\text{proportional time spent in the Netherlands})$. The overall regression was statistically significant ($F(1, 132) = 20.971, p < .001, R^2 = .137, R^2_{Adjusted} = .131$). Following, we added the three IVs *Dutch language proficiency*, *frequency of talking to Dutch individuals* and *perceived support from Dutch individuals* to a second regression model and found that the three IVs explain a significant amount of variation in sense of belonging ($F(4,129) = 19.076, p < .001, R^2 = .372, R^2_{Adjusted} = .352$). When comparing the two models we could see that the inclusion of the three IVs leads to a significant change in the F value ($F \text{ change} = 16.053, R^2 \text{ change} = 0.235$). Therefore, we can conclude that the second model explains significantly more variance in the DV than the model which only includes the control variable. Besides, the coefficients and significance of the four predictor variables in the second model differed. First, *proportional time spent in the Netherlands* significantly predicted belonging, ($b = .441, SE = 0.136, beta = 0.246, t(129) = 3.253, p = .001$). Second, *Dutch language proficiency* did not significantly predict belonging ($b = .182, SE = 0.105, beta = 0.129, t(129) = 1.737, p = .085$). Third,

frequency of talking to Dutch individuals did not significantly predict belonging ($b = .172$, $SE = 0.113$, $\beta = 0.128$, $t(129) = 1.518$, $p = .131$). Fourth, *perceived support from Dutch individuals* did significantly predict belonging ($b = .351$, $SE = 0.073$, $\beta = 0.376$, $t(129) = 4.822$, $p < .001$). Consequently, we can conclude that the third hypothesis is not supported because *Dutch language proficiency* did not significantly predict belonging in the regression model. Moreover, only *perceived support from Dutch individuals* but not *frequency of talking to Dutch individuals* did significantly predict belonging which limits the first hypothesis. Regarding the partial and semipartial correlations, the values for the control variable and the three IVs can be found in *Table 2* in the appendix.

Figure 3

Mediation model



Additionally, we conducted a mediation analysis to explore the potential mediating role of Dutch language proficiency between linguistic distance and sense of belonging. Therefore, we defined the predictor variable as *perceived linguistic distance*, the outcome variable as *sense of belonging in the Netherlands* and the mediator variable as *Dutch language proficiency*. A visualization of the mediation model can be found in *Figure 3* and

the results of the mediation analysis can be found in *Table 3* in the appendix. First, the direct effect between perceived linguistic distance and sense of belonging was found to be not statistically significant with an effect of -0.115 ($p < .061$, 95%-CI (-0.234, 0.005)). Second, the indirect effect was found to be statistically significant with an effect of -0.052 ($p = 0.024$, 95%-CI (-0.096, -0.007)). Third, the total effect was found to be statistically significant with an effect of -0.166 ($p = 0.006$, 95%-CI (-0.286, -0.047)). Therefore, we can conclude that the fourth hypothesis is supported.

Discussion

The current study was conducted to primarily investigate the impact of bridging/bonding social capital and Dutch language proficiency on the sense of belonging to the Dutch society of international students. As previously mentioned, this is highly relevant due to several factors including the general influence of belonging on well-being and mental health, the increasing number of international students in Europe, and lack of research on the influence of language proficiency on belonging for languages other than English. In the following paragraphs, the research findings will be discussed and interpreted, limitations of the study will be highlighted, and suggestions for future research will be given.

Before conducting the study, we generated four hypotheses in total. First, we predicted that higher bridging social capital with Dutch individuals increases feelings of belonging to the Dutch society of international students. The results we have obtained support this hypothesis. Nevertheless, there was a considerable difference in the extent how quality and quantity of contact with Dutch individuals influenced sense of belonging. Although both perceived support from Dutch individuals and frequency of talking to Dutch individuals were correlated significantly with sense of belonging, only perceived support from Dutch individuals was also significant in our regression model. A possible explanation can be found

when we take a look at a study by ten Kate et al. (2020) which argues that not contact frequency but rather quality of social relationships is a better predictor of loneliness. When we transfer those findings to our results, we argue that rather the quality than the quantity of contact with Dutch individuals has a larger impact on belonging to the Dutch society. More specifically, our findings suggest that it is more important to develop meaningful relationships than interacting frequently with Dutch individuals.

Second, we predicted that higher bonding social capital with other international and co-national students decreases feelings of belonging to the Dutch society of international students. Our results do not support this hypothesis. Both frequency of talking to international and co-national students and perceived support from international and co-national students were not significantly correlated with sense of belonging. Therefore, there is no linear relationship between those variables and sense of belonging and the hypothesis can be dismissed. Generally, research regarding the effects of bonding social capital on belonging has been mixed. From a theoretical perspective, there are convincing explanations for both the positive and negative impact on belonging (Ager & Strang, 2008; Hendrickson et al., 2011; Wessendorf & Phillimore, 2019). Although we did not find sufficient evidence to support our hypothesis, our results still show that contact with international and co-national students does not necessarily reduce belonging. Consequently, contact with members from the two groups should not be discouraged. Nevertheless, the general conclusion of our findings regarding the influence of social capital is that feelings of belonging are mostly driven by the quality of contact with members from the host society.

Third, we predicted that higher Dutch language proficiency increases sense of belonging to the Dutch society of international students. The significant correlation between the two variables shows that Dutch language proficiency is related to feelings of belonging.

However, Dutch language proficiency was not significant in our regression model and we cannot conclude that higher Dutch language proficiency increases feelings of belonging to the Dutch society. Past research has shown that higher language proficiency is associated with positive outcomes regarding the integration process (e.g. Ager & Strang, 2008; Nawyn et al., 2012; Ward, 2001). A potential interpretation that this effect cannot be found in our results is that the Netherlands is a country where the majority of citizens are able to communicate in English (Edwards, 2016). Therefore, international students might not be dependent on being able to speak Dutch in their everyday life. Consequently, higher Dutch language proficiency might not have as much of an influence on belonging as in other countries where English is not commonly spoken.

Fourth, we predicted that Dutch language proficiency mediates the association of linguistic distance and sense of belonging of international students in the Netherlands. Our results support this hypothesis. We have found that the indirect and total effects between perceived linguistic distance, Dutch language proficiency and sense of belonging were significant. However, the direct effect between the predictor and outcome variable was not significant. Due to the reason that language proficiency as a mediator between linguistic distance and sense of belonging has never been investigated, it is difficult to find explanations for our findings. One possible explanation for the lack of significance of the direct effect could be that a large part of international students and Dutch individuals are able to communicate in English which might have undermined the impact of linguistic distance on belonging. Nevertheless, our results are promising and should motivate future research in this direction.

Limitations

Although we regard the current study to have a considerable value for the field of acculturation, there are certain limitations which need to be discussed. First, instead of a random sample we used a convenience sample for our study. Consequently, there may be internal and external validity issues due to the lack of random sampling (Lunneborg, 2007). Furthermore, the validity of the sample was also limited as a consequence of 57 of the participants coming from the same country, namely Germany. We assume that the majority of the participants were psychology students and this program is known for having a large percentage of German students. Although we did not obtain any data about the participant's programs, we know that one part of the participants were first year psychology students and we can assume that several of the voluntary participants also study psychology because they were recruited by the researchers who all study psychology. A broader sample with a larger variety of participants might reduce this problem in future research.

Second, we obtained our data through the use of self-report measures. Although self-report measures are a common practice in the social sciences to gain insights into variables which are hardly observable, there are possible issues with their use. This may include failure to understand the rating scales, insufficient introspective ability, and various other biases (e.g. social desirability bias) (Demetriou et al., 2014). Nevertheless, there were several constructs measured in the questionnaire which could have been designed in a way that the responses would have been more objective. For instance, when we assessed Dutch language proficiency we asked the participants about their own perception. A possible solution of this would be to ask the participants additionally if they participated in language courses or obtained a language certificate. Even though the quantitative measures can be seen

as a strength of this study, the lack of open questions and qualitative data prevented us from obtaining the complete picture of the participant's perspectives and experiences.

Third, the study was conducted around two years after the beginning of the corona pandemic. Therefore, most of the participants were affected by the corona regulations during their time as students. Even at the present moment it is difficult to estimate the impact this period has had on individuals and the society but there are some effects that are more apparent. There were several periods when social interactions were severely restricted during the corona pandemic which included contact with friends, fellow international and co-national students, and also Dutch individuals. Consequently, it might have been more difficult for international students to become acquainted with Dutch individuals but also other international and co-national students which might have significant implications for our results and their interpretation. Furthermore, it might have been more difficult for international students to learn Dutch during those periods. In the past two years, language courses were moved online, possibilities to talk to native speakers were limited, and international students might have been less motivated to make an effort to learn the language (Aji et al., 2020). Additionally, part of our participants stated that they did not live in the Netherlands during this time. Although we attempted to control for this by adding the control variable proportional time spent in the Netherlands, we cannot be sure how the results would have turned out if we conducted the study without the impact of the corona pandemic. Therefore, we highly recommend researchers to replicate this study once the corona pandemic is declared to be over.

Suggestions for Future Research

As suggested in the last section, future research should attempt to eliminate the limitations of the current study. Additionally, we will give further suggestions on what future

research may look like. First, our cross-sectional study measured the variables only at a single moment in time when the participants filled out the questionnaire. Consequently, making conclusions about the participant's development and change over time is problematic (Farrington, 1991). Therefore, future research could extend the results of our study by investigating the same variables in a longitudinal design. This would be helpful to clarify the initial feelings of belonging to each group and how the participant's Dutch language proficiency, bridging/bonding social capital, and sense of belonging to the Dutch society change over a certain time period.

Second, we suggest conducting a similar study in other countries than the Netherlands to see how different societal and cultural conditions influence how international students develop belonging. Possible factors which might have an influence on the results could be language of the host country, attitude towards foreigners of members of the host society, and number of international and co-national students. Although future studies conducted in other Western countries will be useful, we strongly suggest conducting similar studies in other parts of the world to be able to make more comprehensive conclusions.

Third, we only investigated the impact of Dutch language proficiency on belonging but disregarded the influence of the language proficiency of English as a second language. As previously mentioned, the Netherlands is a country in which the majority of the population is able to speak English. Moreover, the general importance of the English language has been increasing in the last decades and has become an essential factor in areas such as education and labor market (Abdul Kadir & Wan Mohd Noor, 2015). Consequently, we have to consider if it is sufficient to know English as a second language to develop a sense of belonging. Although there has been a considerable amount of research investigating the direct link between English language proficiency and belonging outside of the Netherlands (e.g. Barratt

& Huba, 1994; Li, 2015; Morrison et al., 2003), the role of English as a second language in the Netherlands still needs further examination.

Fourth, when defining bridging and bonding social capital, we decided to include contacts with Dutch individuals in bridging social capital and contacts with international and co-national students in bonding social capital. Although the assignment of Dutch individuals and co-national students is quite clear, international students are more ambiguous to classify. On the one hand, foreign students may consider other international students as more similar than different to themselves and therefore also identify with them. On the other hand, international students who come from different countries and cultures may differ to significant extents which could lead to distinguishing themselves from students who are not from their own culture. Although this distinction does not limit our results, future research could look into the underlying mechanisms and processes of how international students identify with each of the three groups at the beginning of their stay in the host country and how it changes over time.

Conclusion

In conclusion, in the current study we have investigated to what extent Dutch language proficiency and bridging/bonding social capital influence the sense of belonging to the Dutch society of international students. We have found that the quality of contact to Dutch individuals is the strongest predictor for feeling of belonging. Moreover, the frequency of contact with Dutch individuals and Dutch language proficiency might also play a role in developing a sense of belonging but to a lesser extent. The results support the notion that to truly integrate into a new culture and develop a sense of belonging to the host society, it is crucial to actively take steps towards members of the host community. More specifically, making efforts to develop meaningful relationships with individuals from the host society and

learn the language will help international students to feel like they are valued and accepted. In other words, they will feel that they belong.

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Appendix

Figure 1

Residuals versus Predicted Values

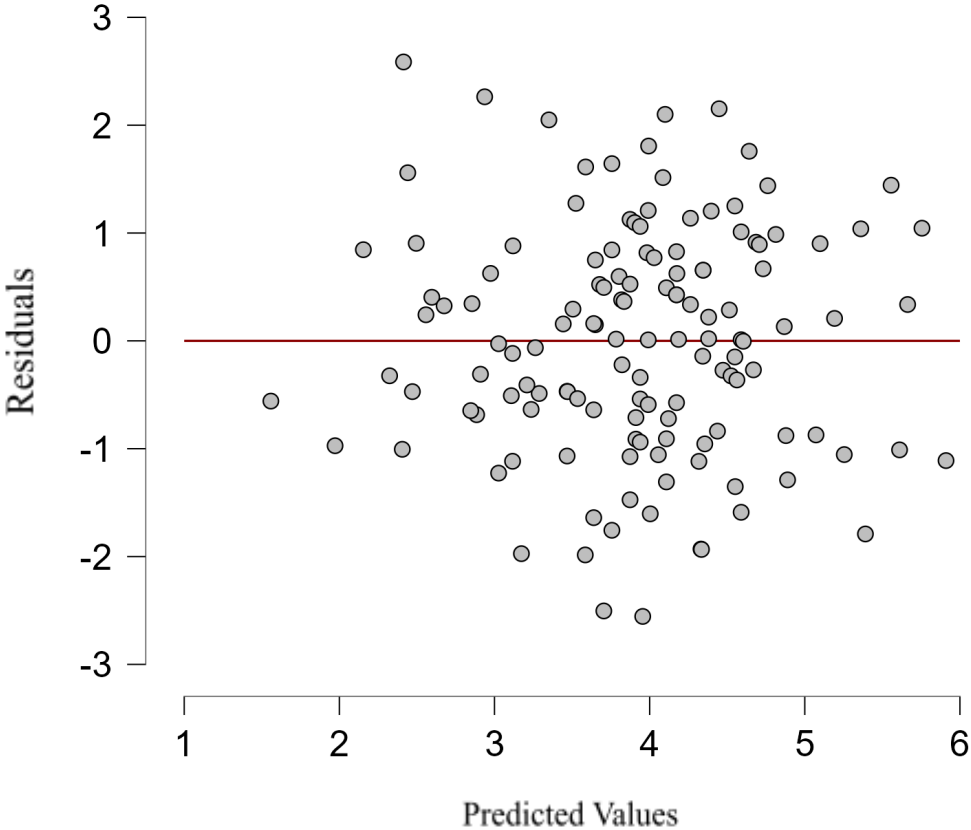


Figure 2

Q-Q Plot Standardized Residuals

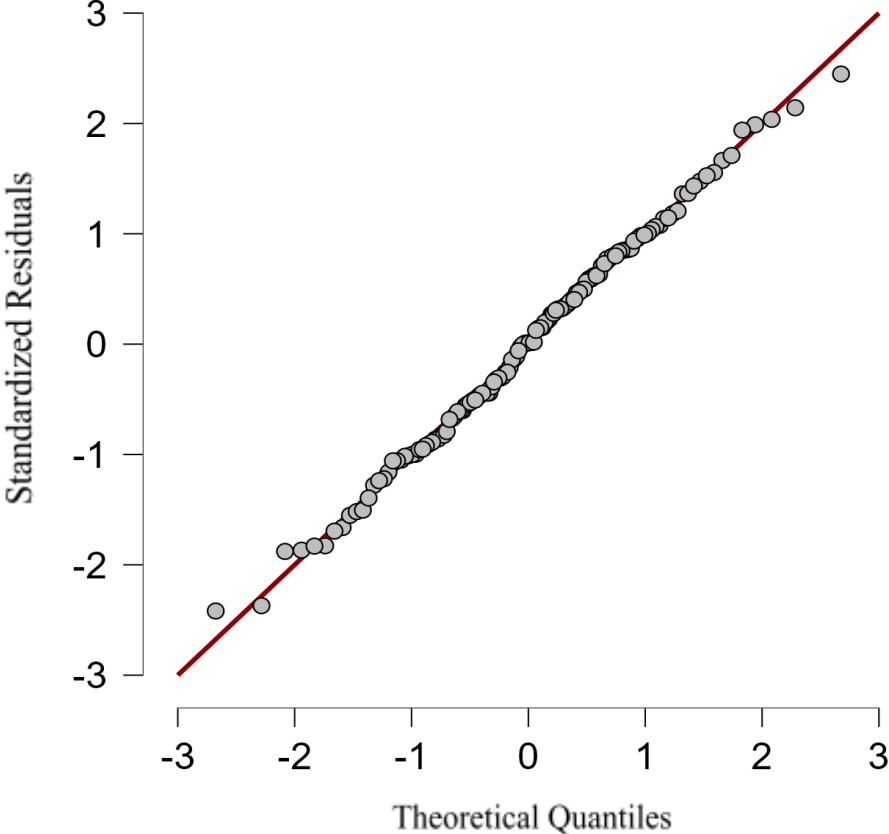


Table 1*Pearsons's Correlations*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Prop. time in NL	-											
2. Length of Stay	-.053	-										
3. Intention to Stay	-.153	-.0246**	-									
4. Dutch proficiency	.190	.386***	.296***	-								
5. Frequency Dutch	.380***	.099	-.224**	.315***	-							
6. Frequency Co-national	-.062	-.031	.030	-.042	-.050	-						
7. Frequency International	.198*	.259**	-.203*	.185*	.245**	-.171*	-					
8. Support Dutch	.135	.070	-.125	.244**	.429***	-.048	.118	-				
9. Support Co-national	-.149	.026	.056	.054	-.158	.653***	-.244***	.156	-			
10. Support International	.038	.057	.101	.130	-.102	-.155	.370***	.304***	.067	-		
11. Linguistic Distance	.107	-.042	.029	-.267**	.010	-.203*	.037	-.101	-.300***	-.045	-	
12. Belonging	.370***	.098	-.093	.308***	.424***	-.029	.054	.496***	.014	.041	-.229*	-

* $p < .05$. ** $p < .01$. *** $p < .001$

Table 2*Semipartial and partial correlations*

Variables	Semipartial correlations	Partial correlations
Prop. time in NL	.227	.275
Dutch proficiency	.121	.151
Frequency Dutch	.106	.132
Support Dutch	.337	.391

Note. The values correspond to the semipartial and partial correlation of the variables with sense of belonging to the Dutch society in the Netherlands.

Table 3*Mediation analysis*

	Estimate	SE	p	95% CI	
				Lower	Upper
Direct Effect ^a	-.115	.061	.061	-.234	.005
Indirect Effect ^b	-.052	.023	.024	-.096	-.007
Total Effect ^c	-.166	.061	.006	-.286	.047

^a Linguistic Distance → Belonging. ^b Linguistic Distance → Dutch Proficiency → Belonging.

^c Linguistic Distance → Belonging.