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„Sharing is caring. Self-disclosure in friendships of Japanese students and the role of relational mobility“

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## 1. Introduction

When considering the term ‘friendship’, words such as security, commitment, and trust might come to mind. In the sense of the saying “sharing is caring”, one way to show trust and affirm commitment is the sharing of personal information. Telling others about one’s fears, hopes, dreams, experiences, and worries can help to develop and to sustain one’s friendships. This sharing of information about the self – the story of one’s first love just as well as one’s preference for a particular brand of coffee – is called self-disclosure. The present Master’s thesis is concerned with self-disclosure in close friendships, in particular that of Japanese students, and how it is influenced by relational mobility – the degree to which one’s social environment allows an individual to establish new relationships.

Self-disclosure fulfils many different purposes in human relationships and has been considered a central aspects in friendships for decades. After Sidney Jourard coined the term in the late 1950ies, it did not take long for ‘western’ researchers to identify self-disclosure as one of the most crucial factors which individuals deem important in their friendships (e.g. Altman and Taylor 1973, La Gaipa 1977, Walker and Wright 1976) or to show that the lack of sharing, especially sharing one’s confidences, can be harmful to friendships (e.g. Argyle and Henderson 1985). Since then, research has emphasized the importance of self-disclosure in friendships again and again (e.g. Collins and Miller 1994, Bauminger *et al.* 2008). Also in a Japanese context results strongly support that individuals assign a high value to self-disclosure within their friendships (e.g. Ochiai and Satō 1996, Wada 1993 for same-sex friendships). So while the concepts of friendship or ‘best friend’ are not necessarily the same across cultures (see e.g. Maeda and Ritchie 2003), self-disclosure seems to be an integral and universal part of close friendships.

The degree to which one shares private information with others is significantly influenced by personality – and indeed the concept of self-disclosure has belonged almost exclusively to the realm of psychology. The influence of culture has also played a role in the research on self-disclosure. Barnlund (1975, 1989) found indication that self-disclosure was higher in individualistic cultures than collectivistic cultures, including Japan. This is supported by other researchers who find Chinese and Japanese to disclose less than U.S. Americans (Chen 1995, Ting-Toomey 1991). The typical explanation for lesser self-disclosure in Japan is an emphasis on harmony within the culture and the more cautious or ‘sensitive’ disclosure arising from it (Ting-Toomey 1991, Kito 2005).

However, comparative research on subjects such as self-disclosure has been leaning more strongly towards societal level factors in the past years (Falk *et al.* 2009:186). In 2010, a



research team approached the matter of self-disclosure from such a social-psychological perspective, drawing on the recent concept of ‘relational mobility’. This concept tries to grasp not personal but rather structural possibilities of individuals to discard old and establish new relationships (Schug, Yuki, and Maddux 2010). Relational mobility is thus used to describe the degree to which individuals can choose new relationship partners and groups when required (Yuki *et al.* 2007). Schug *et al.* hypothesized that social surroundings high in relational mobility would create uncertainty in relationships and lead individuals to increase their self-disclosure to friends in order to strengthen their ties (2010:1472). They conducted two studies: In Study 1 they compared Japanese and U.S. students to see whether cultural differences in self-disclosure could be explained by relational mobility. In Study 2 it was examined whether differences in relational mobility within one and the same cultural setting would also serve as a predictor of self-disclosure. It is this latter study which is specifically important for the present thesis and hereafter, when the term ‘predecessor study’ is used, it refers to ‘Study 2’ by Schug *et al.* (2010).

The results of Study 1 indicate that the perceived degree of relational mobility explains cross-cultural differences in self-disclosure between students in the United States and Japan. In Study 2, mediated by motivation to engage in self-disclosure, it also appears to explain within-culture differences in Japan, insofar as greater perception of relational mobility in one’s environment was associated with increased sharing of personal information to a close friend. Subjective closeness to friend, a factor traditionally connected to self-disclosure, was found to be more strongly associated with self-disclosure, which might be why Schug *et al.* call their finding a “novel and parsimonious explanation for between- and within-culture variances in self-disclosure to close friends” (2010:1475).

Despite these findings, the applicability of this concept is not without doubt. The argument made in the predecessor study is that “[b]ecause of the relative freedom to form new relationships and terminate old ones, social commitments in high-relational-mobility cultures [and social settings] are relatively fragile” (Schug *et al.* 2010: 1472). According to Schug *et al.* this fragility is counteracted by “signaling commitment to one’s partners” and as has been stated in the opening paragraph “one way to do this is through self-disclosure” (*ibid.*). They are not simply arguing that individuals share because they care – they theorize that individuals assess the ‘required’ intensity of disclosure based on the other’s opportunity to meet and befriend other people. Reversing this argument, individuals who feel there to be little or no fragility within a relationship, who have no reason to believe that a person might terminate the relationship and move to another, would not display higher levels of self-disclosure, despite the relational mobility in their immediate society. However, as self-disclosure has a tendency to increase with

levels of intimacy or vice versa (Bauminger *et al.* 2008, Laurenceau, Feldman Barrett, and Pietromonaco 1998, Dolgin and Minowa 1997) there is reason to believe that stable relationships encourage self-disclosure. Thus the main goal of this Master's thesis is to reexamine the role of relational mobility in Japanese students' self-disclosure while taking into account their trust in the stability of the friendship.

If the degree to which relationships in a given social context can be established or discarded has a measurable influence on the way people share information about themselves, then this also leads to the question which factors influence relational mobility. The author argues that despite possible cultural differences mentioned above, when looking at only one culture, socio-economic factors might be relevant in determining how much freedom an individual has in choosing one's relationship partners (see McPherson, Smith-Lovin, and Cook 2001:426-427). Additionally, there is indication that self-disclosure might be related to socio-economic factors (Consedine *et al.* 2007). Thus, in an effort to emphasize the societal-level dimension of self-disclosure even further, socio-economic status is included into the research design.

As gender differences have always been a relevant topic within research on self-disclosure (e.g. Derlega *et al.* 1993, Dindia and Allen 1992, Jourard 1971b), the inclusion of this aspect in the analysis is another objective of the present thesis. Schug *et al.* (2010), due to their small sample size, were not able to conduct analysis separated by gender. If relational mobility does have an effect on the degree to which individuals disclose personal information in friendships, then it is necessary to inquire whether this effect is the same for men and women. Also, as opposed to Schug *et al.*, a difference should be made between close same-sex and close different-sex friendships.

Thus, the three objectives of this thesis consist in a) putting the role of relational mobility for Japanese students' self-disclosure to a test while using a larger sample than in the predecessor study, b) including socio-economic status as an additional societal level variable, thereby emphasizing a sociological approach to the topic of self-disclosure, and c) identifying possible gender differences in the effect of relational mobility on self-disclosure. Even though gender differences in self-disclosure were not a primary objective of this research design, surprising findings in this regard have made it necessary in the eyes of the author to devote a large part of the present thesis to this topic.

The research questions are i) Does relational mobility serve to explain the degree of self-disclosure in Japanese students' close friendships? ii) Is this relationship influenced by socio-economic status? (Also: Does SES have an effect on self-disclosure per se?) and iii) Are there any gender-differences in this respect? Since only one study – the predecessor study – has

tackled the superordinate research question ‘i)’ and the aim of this thesis is to critically assess this previous research, no hypotheses are postulated as for the outcome of the study. Insofar as hypotheses are part of statistical procedures, those of the predecessor study are adapted when appropriate.

Based on the information from the predecessor study, as well as including additional items such as trust in relationship stability, a questionnaire was drafted and handed out to students at a Japanese public university in the Kantō-Region (n=479). Statistical Analysis was conducted using IBM SPSS Statistics 19.

In chapter 2, the vast amount of literature on self-disclosure will be summarized with a focus on friendship, followed by the sparse writings on the relatively new concept of relational mobility. Chapter 3 will serve to explain these concepts, their functions, and their possible connection in greater detail. In chapter 4, some notes on the design of the questionnaire and the research process will be given. Descriptive statistics will be reported in chapter 5. Inferential statistics, including mediation analysis and path analysis will be offered in chapter 6. Group comparisons, revealing the surprising findings in regard to gender differences in self-disclosure are also part of this chapter. Finally, results will be discussed in chapter 7, along with limitations of the present study and implications for future research projects.

## **2. Literature Review**

The concepts of self-disclosure and relational mobility have only been touched upon in the introduction and will be discussed in more detail in chapter 3. The following literature review portrays the major phases and findings of research on self-disclosure in the ‘West’, before moving on to Japan with a specific focus on students’ self-disclosure and gender differences. Despite this thesis choosing a more sociological approach to the subject of self-disclosure, most publications in this review necessarily come from the fields of social psychology and psychology. Literature concerned with the clinical aspects of self-disclosure has been omitted. Furthermore, there is a focus on survey-based research designs as opposed to experimental studies taking place in the laboratory. Due to the most recent development of the term and the extremely sparse literature available on the concept, the section on relational mobility must remain rather concise.

## 2.1. Early research on self-disclosure

The term self-disclosure was coined in the late 1950s (1958) by Sidney M. Jourard (1926–1974), who was a Canadian psychologist and Professor of Psychology at the University of Florida. Jourard saw his own study on self-disclosure as a stepping stone to do “all psychology over again” (1971a:18), insofar as the act of mutual self-disclosure would create a whole new form of trust between psychologist (“experimenter”) and subject, allowing for an authenticity he doubted to have ever existed between these two parties. His approach was very much shaped by his professional interest in psychotherapy and possible implications as to what could be done in sessions to induce higher levels of self-disclosure on part of the patient. This is probably why a whole section of his book *The transparent self*, originally published in 1964, is titled “The disclosing psychotherapist” (1971a:131). However, he also connected these thoughts to society as a whole and stated that psychotherapists should be working “towards a more humanized, pluralistic society” (1971a:139).

Jourard began conducting and organizing studies on self-disclosure in Canada and the United States, but also in other countries around the world. In order to do so, he – in collaboration with sociologist Paul Lasakow – developed the first measurement of self-disclosure of an individual, the Jourard Self-Disclosure Questionnaire (JSDQ) (Jourard and Lasakow 1958). He presents the findings of his work in *Self-disclosure: An experimental analysis of the transparent self* (1971b). They include findings based on a sample of Alabama students. He found that female students displayed greater disclosure as opposed to male students, white students disclosed more than Afro-American students, and when it comes to differences by disclosure target, self-disclosure was greatest toward mother as opposed to father, male friend, and female friend (1971b:11). Based on a small sample of staff at a nursing college he also found support for the assumption that “liking, self-disclosure, disclosure-intake, knowledge, and being known are interrelated” (1971b:18). Numerous other survey-based studies and also laboratory experiments are reported in this book, many producing similar results while also establishing support for the dyadic effect of self-disclosure. This refers to the reciprocity between two parties’ disclosure output and disclosure intake. He also presents first cross-cultural comparisons in the same volume, showing the lesser self-disclosure of Puerto Rican and (female) British students as opposed to U.S. students (1971b:36). As for self-disclosure across the life-course, based on samples other than college students, Jourard writes:

I will propose that children of both sexes begin life with their mother as their closest confidant. The sexes do not differ up to age 12 in overall amount of disclosure. As they enter adolescence, a difference between the sexes begins to appear, the females disclosing more than the males. As

adolescence and young childhood is reached, the typical pattern is for the amount of disclosure to parents to be reduced, with increases in disclosure to closest same-sex friend. As heterosexual relationships are commenced, culminating in marriage, the spouse becomes the closest confidant, with further decreases in confiding to parents and closest same-sex friend. (1971b:51)

*Social penetration theory.* Self-disclosure also plays an important role in a theory of human interaction called social penetration theory. Irwin Altman and Dalmas A. Taylor first formulated the theory of social penetration in the early seventies (Altman and Taylor 1973). The theory focuses on relationship development and is “concerned with the growth (and dissolution) of interpersonal relationships” (Taylor and Altman 1987:259). Through self-disclosure – as well as interpersonal behaviors and the cognitive processes accompanying, preceding, and following them – social penetration processes are conceptualized to move from superficial to more intimate levels of exchange in the search of “new and potentially more satisfying interactions” (ibid.). Other communication processes and non-verbal forms of communication are also relevant for this dynamic.

Altman and Taylor defined four stages of interaction and development in growing relationships: Stage one refers to initial encounters (usually the ‘public’ areas) and is called the *orientation stage*, where both parties primary objective is conflict avoidance. At this stage, little information about the self is disclosed. The second stage – the stage of *exploratory affective exchange* – bridges the gap between the caution portrayed in the first stage and the intimacy displayed in stage three. Information about the self which was previously guarded is now disclosed. The stage of *affective exchange* is where most guards are being or have already been broken down and the involved parties share intensively. In this stage it is possible to explore different degrees of intimacy openly, with little resistance and little emphasis on caution. The fourth and last stage is called the stage of *stable exchange*. Here, all layers of personality are open topics of exchange, and openness is a constant factor as both parties become proficient in interpreting and predicting each other’s behavior (Taylor and Altman 1987:259). Taylor and Altman further define depenetration, the process of relationship deterioration, as failed conflict management: in their view, conflict is part of development, but it can also result in the reverse effects of the stages described above (1987:260).

*Rewards, costs, and the dyadic effect.* Altman and Taylor also utilize the term ‘dyadic effect’ and as they understand it, it describes the role of *rewards* and *costs* within social penetration theory. Rewards are positive experiences in a social relationship, costs are negative experiences. These can either be felt immediately or cumulatively over the history of a dyad. Also, the projections of possible future costs and rewards– *forecast* – play an important role in the development of a relationship and can act both as motivators and inhibitors to propel the

relationship (Taylor and Altman 1987:264). In social penetration theory it is argued that the higher the rewards/cost-ratio, the faster the penetration process and the greater the satisfaction with the relationship (ibid.).

At around the same time when Altman and Taylor published their work, other researchers identified self-disclosure as a crucial element of friendships. Walker and Wright (1976) showed that greater self-disclosure had a positive effect on friendship development, especially intimate disclosure. La Gaipa (1977), working with a Canadian sample, identified self-disclosure as one of eight factors important in friendships together with e.g. helping behavior and similarity. Argyle and Henderson (1985) on the other hand, found evidence that a lack of disclosure (especially of confidences) can be detrimental to a friendship. Overall, it can be said that this first generation of research was strongly focused on the geographical sphere of Northern America and still understood self-disclosure primarily as a tool to create intimacy – while a lack of self-disclosure was seen as a pathological sign in a relationship.

## **2.2. The second generation of self-disclosure research**

In general, Taylor and Altman believed the mutual exchange of which social penetration consists, to “proceed in a gradual and orderly fashion” (1987:259), increasing reciprocal self-disclosure, liking, and trust. This rather one-dimensioned understanding of self-disclosure with only one general outcome or ‘goal’ – also shared by Jourard – was not left untouched by later theoreticians and the scholarly understanding of self-disclosure became more complex.

In 1993, Valerian J. Derlega, Sandra Metts, Sandra Petronio, and Stephen T. Margulis published an influential and concise book on self-disclosure. In it, they criticized that a “casual reading of early work on self-disclosure in close relationships, including [...] social penetration theory [...] and the ‘humanistic’ psychology of Sidney Jourard [...], might suggest that self-disclosure is synonymous with a close relationship” (Derlega *et al.* 1993:2). Contrarily, they emphasized that self-disclosure does not automatically implicate a close relationship, but that of course it can help to create one (for functions of self-disclosure see chapter 3.1.1).

As opposed to the dichotomous conceptualization of social penetration or depenetration in a linear fashion, they found support for at least three other patterns of self-disclosure development over time. Taking marital dyads as an example, they distinguished between: i) the ‘early decline’-pattern, where self-disclosure fades into the background of a relationship rather soon, as other matters grow more important within the relationship, ii) the pattern of ‘long-term levelling or decline’ where disclosure slowly increases and then either levels off or declines because it loses importance in longer relationships where both parties know each other well,

and iii) the ‘early clicking’-pattern, where a high level of disclosure develops almost immediately (Derlega *et al.* 1993: 24-26).

The research presented by Derlega *et al.* included the argument that self-disclosure and decisions to disclose are regulators of privacy and can create vulnerability as well as enable others to treat one more appropriately (1993:86-87). Also, self-disclosure can have a positive effect on psychological health, help attain social support, boost self-esteem, and improve one’s coping with stress (1993:110-11). Their writing on self-disclosure and gender will be part of a later section in this chapter. Derlega *et al.* defined several functions of self-disclosure which will be summarized in chapter 3.

By the 1990ies, when the volume by Derlega *et al.* (1993) was printed, enough literature on various aspects of self-disclosure had been published to allow for useful meta-analysis. One example is the meta-analysis by Collins and Miller (1994) on self-disclosure and liking – one of the major topics of interest in self-disclosure research already in Jourard’s time. In particular, they chose to look at three disclosure–liking effects and found all of them to be significant. Their analysis showed that a) intimate self-disclosure was connected to being liked, b) higher levels of disclosure are found when the person disclosed to is initially liked by the disclosure, and c) disclosure also increases liking on part of the discloser him-/herself. The second effect was identified to be the strongest of the three, and all effects were stronger when considering established relationships as opposed to the meeting of strangers.

Social psychological research on self-disclosure in the 1990s and 2000s expanded to include topics like self-disclosure as an interpersonal manipulation strategy and sex differences thereof (O’Connor and Simms 1990), the effect that ingroup or outgroup identification of strangers has on initial self-disclosure (Stephan *et al.* 1991), more differentiated consideration of gender role in the context of individualized trust and self-disclosure (Foubert and Sholley 1996), as well as the mediating role of self-disclosure in regard to the relationship between social anxiety and social rejection (Papsdorf and Alden 1998) – to list only a few.

In general, a stronger interest in gender-differences in disclosure and factors which influence or are influenced by self-disclosure can be observed (e.g. Daubman and Sigall 1997, Dolgin and Minowa 1997, Shaffer, Pegalis, and Bazzini 1996). However, socio-economic factors have usually not been considered. Consedine, Sabag-Cohen, and Krivoshekova – who also criticize that such variables are generally not included in studies about self-disclosure (2007:261) – have found evidence for a relation between lower disclosure and lower income in the case of young U.S.-American men (however, they did not find such an association for the women in their sample). They argue that environments low in socioeconomic status may

“contain contingencies that do not reward self-disclosure or the necessary reliance on other people” (2007: 255). These environments might harbor socialization patterns which may encourage the development of behavior and relationship patterns that do not inspire self-disclosure (*ibid.*).

In the context of liking or social acceptance, but also in respect to loneliness and other aspects, recently more and more studies are being published that focus on self-disclosure on the internet and via social media (e.g. Ledbetter *et al.* 2011; Rains, Brunner, and Oman 2014; Rains and Brunner 2015). As we will see in a later section (chapter 2.4), this tendency can also be found in Japan. However, throughout the history of self-disclosure research, students were usually the chosen test-subjects, presumably for reasons of availability/access.

### **2.3. Gender differences in self-disclosure**

Differences based on sex have been an important and recurring topic within research on self-disclosure. Already Jourard found support for the existence of differences, with women tending to disclose more than men (Jourard and Lasakow 1958, Jourard 1971b).

The finding that women tend to disclose more – in both frequency and depth – was reproduced in numerous studies with northern American samples. One such example is the work by Caldwell and Peplau (1982), who found that self-disclosure of feelings and problems was lower in male students’ same-sex friendships than in friendships of female students. However, they also noted a discrepancy between subjective reports of intimacy and their observations regarding intimate interactions such as self-disclosure. They thus argue that “[m]en and women may be equally likely to define friends as intimate; however, men and women may have different standards for assessing the intimacy of friendship. Because the male sex role restricts men's self-disclosure to other men, small degrees of personal revelation to a male friend may be taken as a sign of considerable intimacy [...]” (1982:731).

Jourard also tried to understand this difference through sex roles, believing that the male role required a man to “hide much of his real self [...] from himself and from others” in order “to appear tough, objective, striving, unsentimental, and emotionally unexpressive” (Jourard 1971a:35). This intuitive explanation might have been hard to dismiss considering the social context of the 1960s and 70s when gender roles still held more firmly than today and the majority of research from this time was in line with Jourard’s results (e.g. Taylor and Hinds 1985, Thase and Page 1977). However, there also exist several studies conducted not much later which did not support this finding and argued that there was no difference (see Rosenfeld, Civikly, and Herron 1979). Taylor and Altman summarized this strain of literature and



concluded that four factors had been repeatedly proposed as controlling factors in order to produce clearer results: “These factors are anatomical/psychological sex, a clear operational definition of intimacy, control over disclosure topics, and an unambiguous specification of the relationship between subject and target” (Taylor and Altman 1987:271).

A study by Derlega *et al.* (1981) could be seen as answering to these concerns as they controlled for sex of both discloser and disclosure target as well as degree of friendship. They also differed between topics stereotypically understood as ‘feminine’, ‘masculine’, and ‘neutral’. While they found that men disclosed less than women on ‘feminine’ topics, no disclosure differences were found for the other two categories, in two of three experiments. All in all, these results do speak in part for a traditional male-female difference in self-disclosure, despite controlling for the proposed factors.

In 1992, Dindia and Allen conducted a meta-analysis on gender differences in self-disclosure and at this point the literature had already grown to such an extent that allowed them to include 205 studies (published between the years 1958 and 1989) involving almost 24.000 subjects – even though only white North American subjects were considered.

They did find a small effect of sex ( $d = .18$ ) on self-disclosure with women disclosing more than men, but since the effect size was not homogenous across studies, moderator variables were taken into account. They found that sex of disclosure target moderated the effect of sex on self-disclosure. Women disclosed more than men to female and same-sex partners and slightly more than males to opposite-sex partners. However, women did not disclose more than male to male partners. Sex differences were greater when disclosing towards female and same-sex targets, than towards opposite and male disclosure targets (1992:114).

Derlega *et al.* (1993) reasoned that this dissimilarity might come from different subcultures men and women find themselves in. They argued that there are two levels to the understanding of gender and self-disclosure: a general cultural expectation of openness and sharing personal information and the notion of subcultures in which different norms exist which shape behavior and interactions. Due to their socialization in different subcultures “males and females may not only reveal different preferences for and patterns of self-disclosure but also have different interpretations of the meaning and purpose of self-disclosure” (1993:63).

In the years following the work of Dindia and Allen, support for this finding on gender remained mainstream. All in all, it can be claimed that western research on self-disclosure supports the idea that women display greater self-disclosure even though this is limited to certain topics. Introductory literature on social psychology and interpersonal communication even tends to include this gender difference as a preliminary aspect of self-disclosure (e.g.

Brunell 2007). Nevertheless, whenever novel connections between self-disclosure and other variables are explored – and also when cultures different from a ‘western’ context are focused on – gender effects remain an important topic and subject of discussion.

## **2.4. Self-disclosure research in Japan – focus on students’ friendships and gender**

In Japanese psychology and socio-psychology, self-disclosure (*jiko kaiji*) has been an important and multifaceted subject over the past few decades. Several studies underline the importance of self-disclosure for Japanese friendships (e.g. Ochiai and Satō 1996, Wada 1993 for same-sex friendships). Japan-based research on self-disclosure has been shaped foremost by Enomoto Hiroaki.

### **2.4.1. The beginnings of self-disclosure research in Japan**

Enomoto started conducting work on this topic in the early 1980ies and laid the basis for most Japanese self-disclosure research. He also developed a widely used measure of disclosure. Based in part on the JSDQ, Enomoto emphasized the more personal and ‘deeper’ aspects of disclosure concerning the self. He criticized that when using a questionnaire such as the JSDQ, only rough tendencies would become visible, rather than those deeper layers (1987:92). He developed a 44-item battery of questions separated into 6 larger groups that each focused on different aspects of self (see chapter 3.1.1). These are: psychological self (*seishinteki jiko*, including one’s emotions, aspirations, and self-consciousness/confidence), physical self (*shintaiteki jiko*, including one’s outer appearance, health, and sexuality), social self (*shakaiteki jiko*, including one’s relations to other people as well as one’s opinion about public and social matters), material self (*busshitsuteki jiko*, including one’s money spending and interest in material goods), relational self (*ketsuenteki jiko*, including one’s familial matters), and existential self (*jitsuzonteki jiko*, including one’s feeling of purpose of life or alienation) (1987:92; 1997:15). His questionnaire, with several smaller additions and amendments would later become known as the ESDQ, or Enomoto Self-Disclosure Questionnaire. It exists in various lengths and was originally used to measure self-disclosure towards both parents as well as a friend of the same and of a different sex – just like the JSDQ. Since its development, the questionnaire has been used intensively in Japan, alongside other measurements such as variations of the JSDQ or the Self Disclosure Index developed by Miller, Berg, and Archer (1983).

While some of his first articles focused on or included self-disclosure of high school students or even younger subjects (e.g. Enomoto 1982), most of Enomotos work is concerned

with university students. In 1987 he published an article on the subject of self-disclosure among university students in which he built largely on research from North America. In it, he inquired students' level of self-disclosure to four target persons (mother, father, best same-sex friend, and best different-sex friend) while also taking a look at gender. In all areas of self-disclosure defined by Enomoto the female students disclosed more overall than their male colleagues, even though this difference was only significant when it came to the area of family-related information. When separated by disclosure target, Enomoto found that disclosure was strongest to same-sex friend and lowest to father. Women disclosed more towards all four targets, and significantly so towards father and mother. However, the overall disclosure score did not reveal any significant effects of sex when it came to friendship. Here, significant differences between the sexes were only shown when separating by disclosure topic and disclosure target. In the case of different-sex friends only the area of family matters was significant and for all other thematic areas no significant differences could be observed. Disclosure to one's closest friend of the same sex, however, revealed a different picture, where female students shared significantly more than male students in the areas of emotions/emotional experiences, familial matters, and things having to do with their outer appearance. They disclosed significantly less than male students to their closest same-sex friends when it comes to matters of sexuality. Disclosure was highest towards same-sex friends as opposed to the three other possible targets in all cases. Another of Enomoto's finding is that while mothers are the second most preferred disclosure target for female students, for male students this is their closest friend of the opposite sex (even though there is quite a difference in the level of disclosure). Male students primarily disclose only toward their same-sex friend, while for female students, mothers are also considered primary disclosure targets (Enomoto 1987:94-95; 1997:27-37). These results – regardless of mentioned gender differences – support earlier findings of Jourard and Richman (1963) or Rivenbark (1971). They had stated that while parents are the primary targets of self-disclosure at an earlier age, this shifts over time and individuals at university age generally shift their self-disclosure towards their close same-sex friends. Curiously, as can be seen, romantic relationships are often omitted from these comparisons. Some works, however, also consider partnerships in their analysis of self-disclosure and find that self-disclosure can be higher in romantic relationships than in friendships (e.g. Kito 2005).

In the second half of the 1990ies, Enomoto published a book in which he summarizes findings of both western and Japanese psychological and socio-psychological research on self-disclosure (Enomoto 1997). Large parts of this often-cited book are concerned with previous

studies by Enomoto himself (e.g. Enomoto 1982; 1987) but nevertheless it occupies a central role within the literature on self-disclosure in Japan.

#### **2.4.2. Gender-differences**

In his influential 1997 monograph, Enomoto devoted various subchapters to gender differences and titled one whole section with the question “Is women’s self-disclosure higher?” (Enomoto 1997:84-90). Foremost, this reflects the complicated history of this topic in western literature which Enomoto reviewed. But also working with Japanese samples, the picture is not all that clear.

Despite reevaluating western literature on the topic and concluding that support for women displaying more self-disclosure is rather stable, Enomoto also referred to his earlier work (Enomoto 1987) and summarized the following: While overall disclosure to mother and father differed by gender, in case of same- and different-sex friendships there was no significant difference between male and female students (1997:31-33). Gender differences in Japanese students’ disclosure to friends became significant only when considering different topics of disclosure (1997:33-34). When not considering disclosure target, there were hardly any gender differences as to which topics were disclosed more readily or rather concealed, even though female students’ disclosure was non-significantly higher for many topics (1997:31-33). Among friends, topics such as hobbies were readily disclosed, while topics of less open disclosure were sexuality, personal relationships with other people, and family matters (1997:30-32).

For male students, their same sex friends were the only primary self-disclosure target, while female students also disclosed quite strongly towards their mothers. Men’s disclosure to same-sex friend was higher than women’s in respect to sexuality and women’s was higher in respect to emotions, family matters, and their outer appearance (material self). Concerning Japanese students, the western quasi-consensus that women’s disclosure is higher was thus – be it not fully – supported by Enomoto.

Results by Shimakura and Miyamoto (2013) support the assumption that women’s self-disclosure is significantly higher than that of men, also in terms of depth. They used a self-disclosure scale meant to measure depth by Niwa and Maruno (2010) (see chapter 3.1.1). In all four levels of self-disclosure female students scored higher (meaning more self-disclosure) than their male colleagues. Their hypothesis that a lack in self-disclosure would be connected to greater feeling of loneliness was supported for both male and female students.

Takeuchi (2010) found another interesting gender effect. She analyzed self-disclosure to three different types of friends: close friends, ‘normal friends’, and acquaintance-like friends.

In a first step, she found support for the hypothesis that the sharing of personal information to close friends was stronger than to the other two types of friends. But she only confirmed this for same-sex friendships. In the case of different-sex friendships, in which self-disclosure was generally lower, her results revealed greater disclosure to ‘normal’ friends than to close friends, who ranked equally high with acquaintance-like friends. Even though there were some differences, she reported rather similar tendencies in topics disclosed more readily and topics that the students do not talk much about. There was no significant gender effect in regard to self-disclosure towards acquaintance-like friends, but for the other two types, women disclosed more than men in same-sex friendships. When looking at the case of close cross-sex friendships, however, males’ disclosure was significantly greater than females’. For the other two types of cross-sex friendships, no significant differences were observed. So overall, male student’s self-disclosure toward their female friends was greater than vice versa. (2010:20-22). Takeuchi also reported that (feeling of) loneliness was lower among those who disclosed more to close and ‘normal’ friends, while greater disclosure to acquaintances was connected to higher loneliness levels (2010:21).

In a recent study, Hatta (2012) argued that male and female students would display different patterns of coping with stress through self-disclosure. As will be explained in chapter 3.1.1, self-disclosure also serves the function of emotional catharsis. Talking to other people about one’s worries and about things that have a negative influence on one’s mental health in general, fulfills an important role as an outlet, but of course it also carries the potential to trigger supportive action by those to whom we disclose. While male students in Hatta’s study chose to whom they disclosed to depending on the topic of their problems, for female students there were clear tendencies to choose their mothers or siblings, same-sex friends or lovers, regardless of topic. When it came to worries regarding their interpersonal relationships for example, female students hardly talked to their fathers, while for male students this was also often an option (Hatta 2012).

It can be said that Japanese research of self-disclosure partially supports the notion that female students’ disclosure is higher than that of their male colleagues, particularly in case of same-sex friendships and concerning some specific topics. There are, however, also topics and friendship constellations where evidence exists for men’s disclosure to be similar or even greater.

### **2.4.3. Cultural comparison and the effect of cross-cultural experience**

Kasahara states that self-disclosure “is a type of universal verbal communication behavior” but at the same time “it can be said that culture influences the pattern of self-disclosure” (2011:130). Looking at the concept in a given culture or sub-culture will not provide reliable information for other cultures, which is why many studies on self-disclosure are cross-cultural and focus on differences between countries. There is a good amount of literature focusing on the comparison between Japan and other countries, such as China (e.g. Hifumi 2013) and – especially – the United States. Generally, comparative research comes to the conclusion that disclosure is more limited in terms of topics as well as depth in Japan or East Asia, than elsewhere (e.g. Barnlund 1975, 1989; Kito 2005; Ting-Toomey 1991). Additionally, some studies comparing the self-disclosure of Japanese students and exchange students at Japanese universities exist, with the usual outcome that exchange students show greater self-disclosure (e.g. Ishibashi 2009).

Kito (2005) compared levels of self-disclosure between Japan and the US across four types of relationships, including same-sex and cross-sex friendships (together with passionate and companionate love relationships). To measure self-disclosure, she used the 10-item Self-Disclosure Index by Miller, Berg, and Archer (1983) – the same measure that is used as an alternative measure to that by Schug *et al.* (2010) in the present study. Kito's results support the hypotheses that Japanese students' self-disclosure is lower than that of US-students (e.g. Barnlund 1989, Ting-Toomey 1991) – and she also found that disclosure in same-sex friendships was stronger than in those between individuals of different sex. She reported higher self-disclosure in romantic relationships than in friendships in both countries. However, since the Japanese respondents for this study were enrolled at a US university, their status as exchange student and/or their experience with this other culture might have influenced the results.

Kasahara (2011) examined the influence of cross-cultural experience on self-disclosure among students at a Japanese women's university. Drawing from the theory of acculturation, he hypothesized that experiencing another culture and the patterns of communication overall, as well as the patterns of self-disclosure in particular, would have a positive effect on level of disclosure. Although the group of students who had been overseas for a longer period only amounted to 21 students in his sample, Kasahara found statistically significant differences for “most of the facets of self and personality” (2011:140) and also the choice of disclosure targets. As for same-sex and different-sex friendships, which are of special interest here, interculturally experienced respondents portrayed different patterns of disclosure as opposed to Japanese students without such experience.

The work by Hifumi (2013) is an example where Japanese students' self-disclosure was compared to that of students from other East-Asian countries. Her work indicated that the topics of self-disclosure between Japanese students and foreign exchange students were different (and indeed less private and intimate) than among Japanese students, even when the comparison was conducted with students from other East Asian countries. Other than such reasons as a potential outsider status, the lack of shared experiences, or simply a language barrier, Hifumi argued that this might have to do with a cultural difference in self-disclosure as well as differing conceptions of friendships within the cultures in question (2013).

The research that served as a predecessor for this thesis (Schug *et al.* 2010) also included a comparative aspect. One of the two studies conducted by Schug *et al.* compared samples from Japan and the USA. According to the findings of this study, relational mobility can serve to explain cultural differences in self-disclosure.

#### **2.4.4. Other factors in the context of Japanese students' self-disclosure**

*University internal or external friends.* Some research on university students in Japan also makes a difference between friends who go to the same university and friends external to the student's academic life. The distinction is considered as relevant because of such factors as immediate social control, overall time spent together, and shared experiences. One small scale example that focuses on close friendships found that there might be certain differences in the connection between degree of frequency of self-disclosure and the feeling to be understood between these two types of friends (Takeda, Takasawa, and Hanzawa 2009).

Nemoto and Nishio (2001) compared female university students' self-disclosure to university-internal and university-external closest friends. Furthermore, they surveyed assessment of university-internal friends' self-disclosure to the respondents themselves and connection to friendship satisfaction. Self-disclosure was by far stronger towards friends outside the university, which Nemoto and Nishio assumed to have to do primarily with the longer duration of university-external friendships (2001:202). Higher self-disclosure was associated with higher friendship-satisfaction, and additionally reciprocity of self-disclosure revealed a further positive connection (2001:201).

*Length of friendship and degree of intimacy.* In general, findings in regard to intimacy and friendship duration are replicated in a Japanese context in the sense that both seem to have a positive effect on self-disclosure. Using a sample of female undergraduate university students, Moroi, Iwasa, and Ueki (2012) examined the effect of friendship duration on self-disclosure among same-sex close friends, as well as the effect that feeling risk in intimacy can have on

self-disclosure. Generally, they found support for their hypothesis that length of the relationship was associated with increased self-disclosure. They also found partial support for their assumption that people who conceived there to be a high risk in intimacy (feeling of vulnerability) disclosed to their close same-sex friends to a lesser degree. They found no significant indication that this negative association would get weaker the longer a friendship lasts.

Using the definition of disclosure-depth by Niwa and Maruno (2010) (for more details, see chapter 3.1.1), Takeda *et al.* (2012) compared depth of self-disclosure between three different kinds of friendship among university students: a friend whom they had just met, a friend with whom they would like to be closer, and a close friend. The deeper levels of content (III and IV) were more readily shared with close friends, than with the other two types of friend. In the case of level I and II, however, no significant differences were found.

*Connection to loneliness.* As hinted at in the sections above, the connection between (a lack of) self-disclosure and loneliness is also of interest in Japanese and international research. In a study published in 1992 Enomoto and Shimizu (1992) examined the relationship between self-disclosure to close friends and loneliness among Japanese female college-students. They attempted to grasp the term ‘loneliness’ via two dimensions of (non-)connectedness, i.e. a) the belief in the existence of mutual sympathy and b) the awareness of individuality of people. While the latter showed no significant connection to self-disclosure, a lack of believing in mutual sympathy among individuals correlated with lower levels of self-disclosure for many of the topics considered in the ESDQ. This effect was stronger for same-sex friendships than for friendships with men (=cross-sex friendships).

*Modern communication technology.* Within research on self-disclosure, the use of modern communication technology has become a primary focus of attention – in Japan and elsewhere. Social networking sites or Web 2.0 offer novel possibilities of sharing one’s personal information and thoughts, with a potentially completely different constellation of discloser and recipient(s). Again, students become the most common research subjects due to their role as ‘digital natives’ (e.g. Ue and Horiuchi 2012). Questions that are being asked in relation to this new form of communication include how self-disclosure differs between platforms such as Facebook and mixi (e.g. Thomson and Ito 2012).

Noguchi (2011), among other aspects, examined internet self-disclosure of male and female students. In accordance with her findings, she argued that the internet is becoming a place of self-disclosure for Japanese students, where differences based on gender do not matter as much as in face-to-face disclosure situations because it is easier for men to disclose there.



With the exception of societal topics, she reported hardly any or only small differences in men's and women's self-disclosure in regard to such topics as family matters, everyday life, and relationships with people of the opposite sex (2011:124).

*Other works on self-disclosure in Japan* include inquiries into the connection between self-disclosure and social acceptance among undergraduates (Joh 2013), showing that self-disclosure and perception of acceptance are positively related. There is also research on the motivation to engage in self-disclosure and how it relates to sense of fulfillment, showing that those students with little sense of fulfillment, especially those who feel loneliness, are motivated to self-disclose in order to receive social support (Kobayashi and Miyahara 2012). The line of reasoning in this article is similar and supports the assumptions behind the predecessor study of this thesis – insofar as it emphasizes very rational, goal oriented behavior.

Negative effects coming from a lack of or inadequate disclosure represent another research topic. Takano, Sakamoto, and Tanno (2012) used adequate or inadequate self-disclosure as an explanatory variable in functional or dysfunctional self-focus. They showed that inadequate self-disclosure and other factors were associated (directly as well as indirectly) with the psychological concept of self-rumination, the compulsive focus on one's anxiety and distress and the circular 'regurgitation' of these symptoms. Numerous aspects, functions, and explanatory variables of self-disclosure are being surveyed and explored in Japan, and most of this research can be defined as psychological or located in the field of social psychology. In the following subchapter, some research on relational mobility will be presented. This opens the stage for the predecessor study which served as a starting point for this thesis and simultaneously allows for a more sociological perspective.

## **2.5. Literature on relational mobility**

As Falk *et al.* stated a few years ago: “recently, there has been a resurgence in the focus on societal level factors [...] when interpreting cultural differences in behavior and psychological tendencies” (2009:186). One such societal level factor is relational mobility. In 2007, the Center for Experimental Research in Social Sciences (CERSS) at Hokkaidō University published a working paper titled “Development of a Scale to Measure Perceptions of Relational Mobility in Society” (Yuki *et al.* 2007). The research team defined relational mobility as “the amount of opportunities people have in a given society or social context to select new relationship partners when necessary.” Schug, Yuki, and Maddux would later define it as the “degree to which individuals have opportunities to voluntarily form new relationships and terminate old ones in a given context” (2010:1471). Yuki *et al.* developed a 12-item scale in both English and

Japanese to measure perceived relational mobility of an individual's immediate society. The scale is constructed to reflect "1) the general amount of opportunities to meet new interaction partners in the society, 2) opportunities for people to select their own relationships and groups, and 3) the tendency for individuals to be bound to current relationships or groups" (2007:2). They conducted two studies in Japan and the U.S. to show the scale's reliability on the one hand and confirm its construct validity on the other hand (based in part on works on generalized trust by Yamagishi and Yamagishi 1994; Yamagishi, Cook and Watabe 1998). While in the first study, Yuki *et al.* asked for personal relational mobility, in the second study they refined the scale in order to reflect the mobility in the respondent's immediate society (Yuki *et al.* 2007:5). This was the final version of the scale, and it too showed high reliability in both countries, as well as construct validity in its mediation of generalized trust. In line with their hypotheses they found support that perceived relational mobility was higher in the U.S. than in Japan. Since then, the Relational Mobility Scale has been used in a small number of studies, and most of these studies were conducted by the seven researchers who took part in the development of the scale: Yuki Masaki, Joanna Schug, Horikawa Hiroki, Takemura Kōsuke, Satō Kōsuke, Yokota Kunihiro, and Kamaya Kengo.

Falk *et al.* (2009) found that relational mobility partially mediated the cultural difference in self-enhancement and self-critique between Japanese and Asian-Canadians as well as between Euro-Canadians and Japanese. Schug *et al.* (2009) found support for the hypothesis that relational mobility mediates the cultural difference in similarity between friendship partners.

Satō, Yuki, and Norasakkunkit (2014) argued that individuals living in an environment of higher relational mobility would more easily recover from and react less sensitively to social rejection. They also found support for cross-cultural differences between Japan and the U.S. in this regard. Li *et al.* (2015) conducted three studies among Hong Kong and North American students and found support for the hypothesis that increased perception of relational mobility reduces caution about friends and that it also mediated cross-cultural differences in cautious intimacy.

Zhang and Li (2014) investigated whether the difference in the perception of relational mobility in East Asia and North America could be bridged by acculturation. They found that East Asian students who migrated to Canada still perceived their social environment to be lower in relational mobility than European Canadians. Yuki *et al.* (2013) found that cross-cultural U.S.-Japan differences in the strength of the association between self-esteem and happiness

were mediated by relational mobility, but also within Japan, those living in relationally mobile environment displayed higher association between these two aspects.

As can be seen, much of the studies presented here are comparative. This is because the assumption of different degrees of relational mobility has been strongly connected to different cultures already in the development of the measurement. However, Yuki *et al.* also “assume that there are subtle variances in relational mobility in the micro-society surrounding each individual” (2007:2), an assumption which is crucial for the project at hand.

Satō and Yuki (2014), in succession to Yuki *et al.* (2013) concentrated on differences within the same environment to test whether differences in relational mobility mediated the relationship between self-esteem and happiness among university students at a Japanese university. They found that in the case of first-year students, the association between self-esteem and happiness was stronger than for second-year students and theorize this to be due to the higher relational mobility context of freshmen at university.

All in all, relational mobility as presented in these studies, seems to be a useful socio-ecological addition to the study of human relationships – including friendships. But how does it relate to self-disclosure? That is exactly what Schug *et al.* (2010) investigated in the predecessor study to this thesis.

In 2010, Yuki Masaki and Joanna Schug, who had been involved in creating the Relational Mobility Scale, published together with William Maddux a paper linking relational mobility to self-disclosure (Schug *et al.* 2010). They thus added a socio-ecological i.e. societal level component to the research of self-disclosure. In fact, they conducted two studies in regard to self-disclosure. One compared self-disclosure of students in Japan and the U.S., the other included only a Japanese sample. It is this second study that serves as the starting point of this thesis.

In the first of their two studies conducted both in the U.S. and Japan, Schug *et al.* confirm previous literature in showing that Americans were more likely to disclose than Japanese (e.g. Barnlund 1989, Ting-Toomey 1991) and that women were more likely to disclose than men. The results also showed that relational mobility i) was higher in the US than in Japan and ii) significantly mediated cultural differences in self-disclosure (2010:1473). In the second study, Schug *et al.* looked at the relationships between relational mobility and self-disclosure only for Japanese students, to see whether within-culture differences could also be explained by this new concept. Similarly to Study 1, relational mobility as measured by the Relational Mobility Scale was positively correlated with self-disclosure to a close friend ( $r = .23, p = .03$ ). This effect, however, was mediated by the motivation to engage in self-disclosure to strengthen

relationships (2010:1475). They concluded: “Even within a single culture, individuals in social environments higher in relational mobility reported engaging in higher levels of self-disclosure, and did so in order to strengthen their interpersonal relationships” (2010:1475). The study by Schug *et al.* (2010) will be discussed in greater detail in the next chapter.

### **3. Concepts and theoretical foundation of the present study**

In this chapter, the concepts of self-disclosure and relational mobility, which stand at the center of the present Master’s thesis, will be explained in greater detail, as well as the specific understanding of these terms as used in this study. In regard to theory this thesis is closely connected to the predecessor study and its limitations. Thus, the theoretical approach applied in this thesis will be developed both in support of and distinction from the work by Schug *et al.* (2010).

#### **3.1. Self-disclosure**

There are many definitions of the term self-disclosure (jp. *jiko kaiji*) (see Andō 1990, Derlega *et al.* 1993, Jourard 1958) which all have a common denominator: Self disclosure is the sharing (or uttering) of personal experiences, thoughts, or emotions to others through the speaker’s frame of reference. The term has belonged almost completely to the realm of psychology and social psychology for over 50 years, and is still primarily used in that context.

##### **3.1.1. Characteristics, functions, and effects of self-disclosure**

In the *Encyclopedia of Social Psychology* Amy Brunell writes that self-disclosure “refers to the process of revealing personal, intimate information about oneself to others.” She further states that it “is considered a key aspect of developing closeness and intimacy with others, including friends, romantic partners, and family members” (2007:810) and that “[...] many researchers believe that experiencing intimacy through self-disclosure may be the most important factor that determines the health of a relationship.” (2007:811).

Derlega *et al.* (1993) describe the different functions of self-disclosure within a relationship: The first of these functions is relationship development (1993:2-3). This idea includes a kind of feedback-loop where self-disclosure leads to greater intimacy which in turn leads to more self-disclosure. Another function or purpose of self-disclosure is social validation. By revealing information one can get access to other people’s opinions and this might give some justification to one’s own thoughts or feelings. Social control can also be attained by self-

disclosure. Choosing what to reveal about oneself can shape the other's impression and trigger desired responses (1993:3). A function which Derlega *et al.* did not include in their definition but which is also elemental to self-disclosure is that it can serve to provide emotional catharsis. Letting out one's feelings can have a positive and therapeutic effect, depending on the listener (Omarzu and Harvey 2012:496).

Andō (1986) tried to sum up social psychological research on the topic of self-disclosure for a Japanese audience and also identified six functions of self-disclosure. He divides these functions into those playing a role mainly in intra-personal processes – expression, self-clarification, and social validation – and those being more important for interpersonal processes – reward, social control, and regulation of intimacy or privacy. Although the exact definitions as proposed by Andō have not remained in use, the overlapping of his concept and that of Derlega *et al.* emphasizes that self-disclosure serves several important functions in interpersonal communication and relationships.

As for content of disclosure, Derlega *et al.* differ primarily between descriptive and evaluative self-disclosure. Descriptive self-disclosure refers to objective information about oneself with varying degrees of intimacy, such as number of siblings or details about one's sex life. Evaluative self-disclosure consists of personal feelings and opinions (1993:5). There are many other dimensions to self-disclosure such as reward value or even the voluntariness of the information disclosed. Disclosure can happen involuntarily or, in another extreme, with complete calculation as to how one's conversation partner might react on it (this is called the goal orientation of self-disclosure). But it can also be non-verbal: Tone of voice or gestures can be considered self-disclosure too (*ibid.*). In most research designs, however, self-disclosure is limited to verbal communication. This is what Derlega *et al.* have done “in order to make [their] task manageable” (1993:5) and this is also what has been done in the present thesis.

Brunell highlights some other important characteristics of self-disclosure, which I will recapture here: First, self-disclosure varies by degree of intimacy and can be *broad* (covering a wider range of subjects) or *deep* (sharing more private and delicate information) depending on type and closeness of the relationship (2007:811). For some research purposes, *duration* of disclosure can also be of relevance. In a Japanese context, Niwa and Maruno identified four levels of depth in respect to Japanese university students' self-disclosure (2010). Level I: The first level only covers hobbies and the like, so very superficial information about the self that can still help creating topics of conversation and promote relationship development. Level II: The second level of disclosure-depth covers the broad range of difficult experiences and ways how they were overcome. Level III: The third level includes foibles and weaknesses which are

not definite and are generally not expected to induce a final negative judgement by the other party. Level IV: Finally, the fourth and deepest level of self-disclosure identified by Niwa and Maruno consists of negative or inferior character traits and (lack of) abilities. This categorization is used in several Japanese studies on self-disclosure (e.g. Shimakura and Miyamoto 2013, Takeda *et al.* 2012).

Another aspect Brunell notes is that self-disclosure is usually reciprocal, thus increased sharing of information by one friend or relationship partner will usually lead to the other disclosing more as well. This reciprocity of self-disclosure poses a great challenge in creating respondent-centered research designs. Content of disclosure is important, but the reaction of the conversation partner and the individual's interpretation of this reaction are decisive factors as well (Brunell 2007:811) – and these are hard to include in a survey. It is not surprising that research on self-disclosure often approaches the matter from the point of communication strategy or relationship dynamics (e.g. Ishida and Watanabe 2010).

Self-disclosure, as has been stated above, is a key concept of social penetration theory. This theory, which goes back to Altman and Taylor (1973) describes how relationships are formed through exchange. When people get acquainted with each other, social exchange takes place. Triggered usually by a minor self-disclosure by one of the participants, this social exchange is marked by alternating instances of self-disclosure. This involves the constant choice on part of both conversation partners to either disclose in return or end the spiral that is taking place. It is assumed that this exchange, which includes ever deeper self-disclosure leads to ever higher intimacy between the two people until no new disclosure takes place. This creates an understanding of each other that serves as the basis for the relationship, be it platonic or romantic. This is what was called the function of relationship development above, but here, in the context of social penetration theory, it carries a different emphasis. Establishing intimacy through authentic representation of the self is the one and most important aspect from this perspective (Omarzu and Harvey 2012:468).

This assumption of social penetration theory has come to be regarded as too simplistic and one-sided. It has been argued that this is not the only path which reciprocal disclosure can follow. As Derlega *et al.* (1993) state, different patterns of self-disclosure are possible, such as “a linear progression at first but shifting to a sharp decline after an initial period of openness, a pattern of increasing disclosure that eventually levels off”, or very personal self-disclosure right from the start, called a ‘clicking’ trajectory’ (1993:116).

Omarzu and Harvey underline that self-disclosure is a discretionary behavior, so individuals are to a large degree capable of choosing how much and to whom they disclose.

Thus, it can also be goal-oriented (2012:469). This goal-orientation is especially important for the design of the predecessor study of this thesis, and will be discussed later on (see chapter 3.2).

There is also risk attached to self-disclosure. Sharing private information reveals vulnerabilities and might cause the listener to react in a negative way. How one experiences the perception of others is therefore crucial in shaping disclosure. “The impressions and attributions we have formed regarding others affect the extent of our willingness to disclose to them and the circumstances under which we are willing to disclose” (Omarzu and Harvey 2012:469). This can be extended to mean ‘social context’ in a broader sense. Not only are we more likely to disclose to one specific person who seems trustworthy and receptive, but it is also very possible for a whole social environment, be it a group, an organization, or a whole society to encourage certain tendencies in degree and patterns of self-disclosure (e.g. Barnlund 1989). This is what comparative research on self-disclosure is concerned with.

### **3.1.2. Self-disclosure and self-concealment**

When Jourard coined the term self-disclosure in the 50ies and 60ies, he considered it “a symptom of personality health *and* a means of ultimately achieving healthy personality” (1971a:32). A low degree self-disclosure was considered to be indicative of and directly related to an unhealthy personality, as the effort one puts into avoiding to reveal one’s self to others creates a stress that is “subtle and unrecognized, but nonetheless effective in producing [...] the assorted patterns of unhealthy personality” (1971a:33). Nevertheless, most early self-disclosure studies focused on factors which promoted disclosure instead of looking at what keeps disclosure from happening (see Cozby 1973).

Since the 1990ies however, it has become difficult in psychology to speak of self-disclosure without also mentioning self-concealment, a concept that is very closely related to, but still “conceptually and empirically distinguished from self-disclosure” (Larson and Chastain 1990:439). The researchers who coined the term defined it as the “active concealment from others of personal information that one perceives as negative or distressing” (ibid.). They explicitly build on self-disclosure research but argue that self-concealment as conceptualized through a measure they introduce, is not just the ‘mirror image’ of self-disclosure (1990:447) and also identified a “uniquely negative impact on mental and physical health” (1990:451) such as depression and anxiety, even when controlling for self-disclosure.

There are two crucial points in the definition of self-concealment: First, what is being concealed is negative information about oneself and second, the person in question is actively

trying to keep that information hidden (Uysal, Lin, and Knee 2010:190). When talking or rather not talking about something negative, this is still not considered self-concealment, as long as the information is not actively held back. Kahn and Hessling (2001) speak of ‘distress-disclosure’ in this context.

The fact that self-concealment only focuses on negative information which to conceal is detrimental for one’s psychological health is in accordance with the fact that the subject of self-concealment is even more strongly tied to solely psychological literature with clinical implications, than is self-disclosure. There are several reasons why self-concealment is not considered as a separate concept in this thesis: Firstly, the clinical and pathological emphasis behind the study of self-concealment makes it less promising for socio-psychological research. Secondly, the relative irrelevance of the health perspective to the present thesis suggests that the additional value added by including self-concealment would be very limited. And thirdly, in combination with the above, the similar theoretical foundation of concealment and (lack of) distress disclosure itself suggested little additional value by including the concept.

Instead, self-disclosure will be understood as the sharing of information both positive and negative, while reasons for concealment will not be a focus in the empirical part of this work. Although possible reasons for a lack or low-degree of self-disclosure can overlap with reasons for self-concealment, insofar as external factors influence the concealment of information, this specific literature is hardly considered in the present thesis.

### **3.1.3. Self-disclosure in this thesis**

Falk *et al.* (2009) state that there has been a „resurgence in the focus on societal level factors (e.g. social structure, social context, institutions)” (2009:186) in research on behavior and psychological tendencies. In particular, they claim, one manifestation of this increased interest in a more sociological perspective is the focus on “ways in which both actual and possible movement between relationships, groups or localities in a society can affect the behaviours and psychological processes of the people who reside within the society [...]” (ibid.).

This thesis tries to locate the subject of self-disclosure more strongly within the field of sociology. It cannot and should not be denied that many intrapersonal processes are part of the decision what to disclose. However, due to the approach of the predecessor study, this thesis leans strongly on the goal-orientation of self-disclosure (Derlega *et al.* 1993:4). It is argued that self-disclosure can be seen as the attempt to control social situations in relation to existing expectations and norms. Rather than explaining differences in self-disclosure between certain groups or cultures by looking at common personality traits – socialization processes and the



rules of social interaction in specific context are theorized to influence this behavior. Furthermore, the role of self-disclosure as a navigating tool in one's social environment and one's relationships is emphasized.

In distinction from purely psychological literature, the understanding of self-disclosure in this thesis is not centered on the processing of distressful events through disclosure, meaning its catharsis function. It also disregards individuals' personality and how their personality traits influence their way of communicating. In distinction from communication research it is not about dyadic relationship patterns or dynamics of communicative feedback.

Rather, self-disclosure in this thesis is understood as involving choices of social interaction and the way these are influenced by one's socialization and social surroundings. What individuals share about themselves is not just an expression of their personality, but of expectations directed towards them, it depends on social context, on the role that they have taken or want to enforce in a specific social environment. The way we have been socialized, the groups we have been socialized into and feel be part of, the values learned as well as the expectations felt, ideals to live up to, and pending sanctions we might expect from our surrounding – they all can effect our self-disclosure (compare Derlega *et al.* 1993: 44-57).

As self-disclosure in close relationships is more strongly characterized by depth of self-disclosure as opposed to an ever broader range of topics (see above), when phrases such as 'high' or 'low self-disclosure' are used in this thesis, this refers to the depth rather than the breadth of personal information shared.

### **3.2. Relational mobility and the assumptions of the predecessor study**

Schug *et al.* (2010) emphasize self-disclosure as a way to signal commitment to one's partner and to strengthen a relationship by doing so. The goal-orientation above is very clear in this definition, where self-disclosure is seen as part of an effort necessary for relationship-maintenance (2010:1472).

They suggest that it is "strategically beneficial to devote time and energy toward their [the relationships'] explicit maintenance" (2010:1472) especially when relational mobility contexts are high. Their stance on this subject is that in social contexts higher in relational mobility, it would require more effort to maintain a relationship than in contexts of low-relational mobility. They argue that "[b]ecause of the relative freedom to form new relationships and terminate old ones, social commitments in high-relational-mobility cultures are relatively fragile" (ibid). With increased possibilities to terminate old and enter new relationships, existing relationships would have to be less stable. And since self-disclosure is one way to create intimacy and

strengthen a relationship it would only be logical to think that higher relational mobility would go hand in hand with higher levels of sharing personal information. So evidently, their understanding of self-disclosure very much underlines its discretionary and goal-oriented aspect. According to this rationale, we would expect higher self-disclosure of respondents who perceive their environment to be high in relational mobility and thus may have reason to doubt the stability and durability or stability of their friendships. Schug *et al.* also asked for disclosure to family members, but reasoned that relational mobility would not have any effect on disclosure to family, “because family relationships are generally inherently low in relational mobility, and therefore self-disclosure may have less utility in strengthening these relationships” (2010:1472). Indeed they found that relational mobility and the sharing of personal information to friend are correlated and that this connection is mediated by the respondents’ motivation to engage in self-disclosure to strengthen the relationship. Conversely, no correlation was found for disclosure to family members. They present these results as offering “a novel and parsimonious explanation for between- and within-culture differences in self-disclosure to close friends” (2010:1475).

Yet there are noteworthy limitations to these outcomes and some theoretical question remain. Next to the small effect size found in the predecessor study, sample size is also an issue ( $n = 94$ ; 29 female and 65 male subjects), with a low number of female subjects, reducing the chance of identifying gender effects. The measure of self-disclosure used in the predecessor study is also worthy of discussion. Instead of an established measure of disclosure Schug *et al.* devised a very short measure of their own to assess self-disclosure of students in (the U.S. and) Japan. This limits comparability to other studies and also raises the question whether other measures of self-disclosure would produce similar results – especially regarding the connection to relational mobility. This is why the established Self-Disclosure Index by Miller *et al.* (1983) is included in the present thesis as an additional measure of self-disclosure.

Other possible objections have to do with the underlying assumptions of the study. As already mentioned, Schug *et al.* (2010) emphasize that the sharing of personal information with another is not only a deliberate action dependent on the situation, such as the desire to disclose to anyone at all, or the spontaneous notion to confirm intimacy. They concentrate on the disclosure as a strategic decision where the discloser holds long-term goals (maintenance and strengthening of the relationship) and for which to reach he/she utilizes self-disclosure in a very rational and pragmatic way. They leave aside the other functions of sharing one’s personal information and thoughts, such as emotional catharsis – in order to take a sociological approach, they might be over-emphasizing this goal-oriented behavior. As the present thesis is also trying

to grasp the sociological side of self-disclosure, it is important to reflect on this matter. Additionally, Schug *et al.* imply that the discloser is considering the relational mobility within his or her environment in order to make this decision. In their view, the discloser does not only consider the relationship between him/herself and the close friend, but also the possibilities within their social environment to meet other people and establish new relationships.

The other and more consequential assumption has to do with the possible effects of relational mobility on human relationships. Their argument follows the logic that relationships of individuals in high-relational-mobility environments are also more fragile, which increases self-disclosure (Schug *et al.* 2010: 1472). Reversed, this would mean that having greater trust in the stability of the relationship would decrease one's self-disclosure to the other party (which is dubitable when speaking of friendships) or at least counteract this effect of relational mobility. Self-disclosure has a tendency to increase with levels of intimacy and intimacy reversely encourages self-disclosure (Bauminger *et al.* 2008, Laurenceau, Feldman Barrett, and Pietromonaco 1998, Dolgin and Minowa 1997). Similarly, the length of a friendship appears to have a positive effect on self-disclosure of Japanese students (Moroi, Iwasa, and Ueki 2012). Thus there is reason to believe that stable relationships would positively affect self-disclosure and the assumption that perceived fragility leads to strategic self-disclosure can be put to the test by also asking for trust in the stability of the relationship.

Although, looking at the literature cited above, it seems unlikely that a higher degree of trust in the stability of the relationship would have a negative effect on self-disclosure, this is the connection implied when one expects greater relational mobility to lead to higher levels of self-disclosure – as long as this is explained via the fragility of relationships in high-relational-mobility environment. Both a measure of subjective intimacy as well as a measure of trust in the stability of the friendship are included in the survey this thesis is based on. This is expected to shed light on the above assumptions made in the predecessor study.

#### **4. Method**

Now that the predecessor study, its possible weaknesses, and the underlying concepts of both studies have been discussed, this chapter will focus on the research process of the present thesis. The design of the questionnaire as well as the individual measures will be presented. As has been stated before, one primary aim of this thesis was to conduct a study comparable to the work by Schug, Yuki, and Maddux (2010) with a bigger sample. However, at the same time,

for reasons explained in the previous chapter, the predecessor study should not simply be replicated. Several changes to the questionnaire were undertaken.

The data was collected at a public university in proximity to Tōkyō from May to June 2015. The questionnaire was distributed in classes, which required the consent of the teaching personnel. In total, 14 members of the university's faculty agreed to collaborate and the questionnaire could be distributed in 15 classes they taught. First, they were chosen and approached by the author based on personal acquaintance and availability, and in a second phase based on size of their lectures and the university's timetable. Those lectures which were held right after or before a break were preferred because this would allow more time for distribution or collection of the questionnaires. In trial runs that were conducted before distribution began, it took the test subjects about 7 to 12 minutes to fill out the entire form. Teachers were asked to devote 15 to 20 minutes of their respective lectures – either at the beginning or at the end of their period – to the conduction of the survey. A brief introduction by the author was part of the process. In this introduction students were told simply that the survey was about friendships and part of a Master's thesis in Japanese studies. It was also made clear – either by the author or the respective lecturer – that the students' participation or non-participation would in no way influence their grade. 617 questionnaires were distributed, with the number of respondents per class ranging from 12 to 157 students. In total, 538 questionnaires were turned in, amounting to a response rate of 87.2%. Of those, 479 were turned in sufficiently completed. The remainder was excluded from the analysis.

#### **4.1. Research design**

One of the greater changes in the design of the questionnaire was that the category of family members which had been included in the predecessor study was omitted to make room for a closer look at friendship. The predecessor study did not produce any significant effect of relational mobility on self-disclosure to family members. This was reasoned to be due to the inherently low relational mobility found in family relationships and the resulting reduced utility in strengthening these relationships through self-disclosure (Schug *et al.* 2010:1472).

As stated by the creators of the Relational Mobility Scale, the wording of the scale “makes it possible to specify the group for which perceptions of relational mobility are measured. [...] In this way, the relational mobility scale may be used to measure the relational mobility of specific groups of interest to the researcher” (Yuki *et al.* 2007:6). Heeding this advice, the group for which relational mobility would be assessed in the present study was limited to the respondent's group of ‘friends and acquaintances [*yūjin ya shiriai*]’ rather than including

workplace, town, and neighborhood, as was done in the predecessor study. Under the assumption that Japanese students spend much of their time at and around university (including extracurricular activities), it was reasoned that when thinking of their ‘immediate society’, friends and acquaintances i.e. people with whom they interact at university would be in the foreground in any case.

Another important change was due to the intention of this research to look more closely at gender – objective ‘c)’. Instead of asking only about ‘closest friend’ without specifying this friend’s gender, the present questionnaire contained three sections: One section asked about self-disclosure to one’s closest female friend, another to one’s closest male friend. In addition, the author considered it methodologically and ethically imperative to repeat these questions a third time, in order to account for friends who do not define themselves based on only these binary categories. Including this item was not a question of whether one could expect a large enough number of respondents in this group to allow for reliable statistical analysis. The crucial point here was that those individuals who do not define themselves as either male or female feel to be given room in contemporary sociological and socio-psychological research even when they are not specifically targeted. This is also the reason why respondents were not given options when indicating their own gender on the last page of the questionnaire but had to fill out the answer themselves. As expected, few responses to this third section were collected. Therefore, in this study as well it will largely be the binary categories of male and female which will be considered. Although it would be appropriate to speak of ‘same-gender’ and ‘different-gender friendships’ the author follows the terminology of literature in the field by using the terms same-sex and different- or cross-sex friendships.

One more crucial change consisted in the inclusion of an additional measure of self-disclosure, to test whether the model of Schug *et al.* would also hold when self-disclosure was measured differently than in their own study. While they state to have based their work on various existing questionnaires and scales, Schug *et al.* nevertheless created their own abridged measure of self-disclosure to use in their study. This measure only consisted of five items and was thus practical to use. Even though this decision was pragmatic and the final questions were the result of work with both US and Japanese focus groups (2010:1472), an additional measure of self-disclosure was used in this thesis to serve as a control mechanism: The Self-Disclosure Index.

The Self-Disclosure Index by Miller, Archer, and Berg (1983) includes 10 items and was created to avoid using the more time-intensive questionnaires such as the JSDQ. It was originally used to measure self-disclosure of same-sex strangers (openers) and to same-sex

friends. The brevity of this index, which has been used in several studies throughout the years (e.g. Fisher and Choi 2013, Kito 2005, Sprecher and Hendrick 2004) allowed to include it in addition to the one used by Schug *et al.* (2010). Throughout this thesis the measure used in the predecessor study is referred to as the ‘self-disclosure scale’ or ‘5-item measure of self-disclosure’, and the additional measure by Miller *et al.* (1983) is called the ‘Self-Disclosure-Index’ or ‘10-item measure of self-disclosure’.

The addition of items used to compute a variable of socio-economic status was also an important aspect of this thesis. It will be presented more closely below. Other minor additions, such as number of siblings, or experience of living overseas were also included but do not play a specific role in this thesis.

The questionnaire that was distributed to the students in Japanese (see appendix A), was five pages long, and consisted of seven sections labelled A to G. In total, there were 92 items in the final version, of which those in section E were usually left unanswered. Table 1 shows the structure of the questionnaire.

Table 1: Structure of the questionnaire

Page	Section	Measurements	Number of items
1	A	• Relational Mobility Scale	12
	B	• Motivation to engage in self-disclosure • Items on different-sex friendships	1 2
2	C	[About closest female friend] • 10-item Self-Disclosure Index • 5-item self-disclosure scale • Subjective Closeness Index • Item on trust in stability of friendship	10 5 2 1
3	D	[Analogous to C but about closest male friend]	18
4	E	[Analogous to C/D but about closest ‘other’ friend]	18
5	F	• Items on number of new friends in the past year	4
	G	• Demographics, socio-economic factors	19

## 4.2. Measures

The individual measurements explained in more detail here are arranged by importance for this thesis, rather than the chronology of the questionnaire shown above, so that main variables are presented first.

*Self-disclosure.* The 5-item measure taken from Schug, Yuki and Maddux asked about the respondents’ likeliness to share with their specific close friend “a) their biggest secret, b) their most embarrassing experience, c) their greatest failure, d) their greatest worry, and e) the worst thing that ever happened to them” (2010:1472). Answer options ranged from “not very likely” to “extremely likely” on a five-point scale.

The alternative and additional measure of self-disclosure, the 10-item Self-Disclosure Index by Miller *et al.* (1983) asked how often respondents shared certain information with their respective close friend. The topics were a) one's personal habits, b) things done in the past which one feels guilty about, c) things one wouldn't do in public, d) one's deepest feelings, e) what one likes or dislikes about oneself, f) what is important to one's life g) what is important for one's identity i.e. to be oneself, h) the things one fears most, i) things one holds in pride, and j) one's close relationships with other people. Responses ranged from "not at all" to "fairly often" on a five-point scale.

The self-disclosure scale (5-item measure), due to its use of superlatives and thematic focus on negative content can be considered to ask for very intimate self-disclosure. The topics would most likely fall into the fourth and deepest level of self-disclosure after Niwa and Maruno (2010). The alternative measure of self-disclosure employed in this thesis, however, is considerably less 'negative' in its choice of topics, even though most of the 10 items are very personal (topics such as one's hobbies are not included). While the item on one's personal habits can be considered as level I-disclosure after Niwa and Maruno and 'what you like and dislike about yourself' would most likely belong to level III, it is hard to assign categories to all of the 10 items. For example 'what is important for you to be yourself' does not fit any of the four levels' definitions. However, it becomes quite clear that while the 5-item measure employed by Schug *et al.* (2010) is very concisely focused on negative things one reveals or does not reveal about oneself, the 10-item measure by Miller *et al.* (1983) is more general in its nature. Yet it covers important aspects of the self and topics which seem fundamental for making oneself known to another party and the disclosure of which communicates trust, intimacy, and goodwill. Differently put, this second measure is thus 'broader' (Brunell 2007) than the self-disclosure scale used in the predecessor study. However, since the variety of topics is very limited in both scales, breadth of self-disclosure can hardly be assessed via these measures. As self-disclosure in close friendships is especially characterized by deeper levels of self-disclosure, breadth of topics is not of immediate concern in this thesis.

As mentioned, whereas the self-disclosure scale measures likelihood of target-specific disclosure, the Self-Disclosure Index asks for respondents' actual disclosure situation. The author considers neither scale to be more appropriate than the other in assessing self-disclosure to a close friend. However, one should bear those differences in mind for later analysis.

As suggested by the creators of the scales, indices from these two measures of self-disclosure were created through addition without weighing the responses, resulting in one variable ranging from 5 to 25 in case of 5 items and one ranging from 10 to 50 in case of 10

items. Both of these indices were normalized by dividing through the number of items included and thus finally range from 1 to 5 in the form of quasi-continuous variables. The indexed self-disclosure scale (5-item measure) proved to be highly reliable for both disclosure to female friend ( $\alpha = .84$ ,  $n = 434$ ) as well as disclosure to male friend ( $\alpha = .88$ ,  $n = 452$ ). Likewise, the Self-Disclosure Index (10-item measure) was characterized by high reliability (to female friend:  $\alpha = .83$ ,  $n = 433$ ; to male friend:  $\alpha = .90$ ,  $n = 450$ ).

*Relational Mobility Scale.* The first part of the questionnaire was the Relational Mobility Scale as proposed by Yuki *et al.* (2007) and as used by Schug *et al.* (2010). Leaving aside the already mentioned limitation to ‘friends and acquaintances’, the scale was left almost completely unchanged. The respondents were asked to indicate their agreement to 12 different statements, using response categories from 1 (“strongly disagree”) to 6 (“strongly agree”). Among the items included were six positive statements as for example “They [your friends and acquaintances] can choose who they interact with”, “If they did not like their current groups, they would leave for better ones” and also six negative, inverted items such as “Even though they might rather leave, these people often have no choice but to stay in groups they don’t like”. (A full list of the items in Japanese can be seen in appendix A and table 8 in English.) The reliability of the scale for the whole sample ( $\alpha = .79$ ,  $n = 465$ ) was sufficient and slightly higher than in the studies conducted by Schug *et al.* (2010). An additive non-weighted index was created (after recoding the inverted items) to arrive at a variable with a theoretical range from 12 to 72. This was then divided by 12 to arrive at a quasi-continuous index-variable ranging from 1 to 6.

*Motivation to engage in self-disclosure.* The motivation to engage in self-disclosure in order to strengthen relationships was covered with an item phrased “Talking to friends about my worries is a good way to strengthen the relationship.”<sup>1</sup> Respondents were asked to indicate how much they agree to the statement by making a mark on a 97 millimeter long visual analogue scale – a straight line – which was only labelled at the extrema (left: “low”; right: “high” [agreement]). The resulting values from 0 to 97 could not be seen by the respondents and were added afterwards by measuring where the mark had been placed on the line. They are treated as a quasi-continuous variable in the following analysis. (For a summary of advantages of visual analogue scales see Funke 2010).

*Subjective Closeness.* As did Schug *et al.* (2010), I made use of the Subjective Closeness Index by Berscheid, Snyder, and Omoto (1989), even though the original 10-point unipolar scale was replaced with a visual analogue scale as used above. The additive index (with a range

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<sup>1</sup> Translations here and in the following by the author.



from 0 to 97 after division) consists of 2 items that ask to indicate the degree of closeness with the specific friend a) in comparison with all of one's other relationships and b) in comparison with what one knows about other people's relationships. The wording was changed to mean "friendships [*yūjin kankei*]" instead of "relationships". Again we find that this measure had good reliability both in the case of ones relationship to female friend ( $\alpha = .81, n = 430$ ) and male friend ( $\alpha = .86, n = 446$ ).

*Trust in durability/stability of friendship.* Another item was added in this section of the questionnaire that asked for the likeliness that the relationship with the disclosure target would still be the same ten years later. This reflects trust in the durability i.e. stability of the relationship and will be used as a proxy for this concept. It also used a 97mm visual analogue scale.

As shown in table 1, the two partner-specific self-disclosure measures as well as the Subjective Closeness Index and the item on trust in relationship-stability were repeated three times in total, for a) the closest among the respondent's female friends b) the closest among the respondent's male friends, and c) for the closest of the respondent's friends who do not define themselves by using simply these two categories.

*Number of new friends and close friends i.e. personal relational mobility.* As is the case in the work of Schug *et al.* (2010), another approach to measuring relational mobility (next to the Relational Mobility Scale) was taken. In addition to the utilization of the Relational Mobility Scale, Schug *et al.* (2010) asked their respondents how many new friends and acquaintances they had made during the past one month and past three months. The present study only focused on friends, which is why the item in this questionnaire leaves out acquaintances and instead asks for friends and close friends. (Here the meaning of the Japanese word *tomodachi*, which was used, is rather broad – yet it is still less open than the term *shiriai*, which might also include new professors, dorm personnel, and the like.) In the trial runs, however, the timeframe of three months was still considered too short by a majority of respondents, which is why it was extended to cover the past year. Based on findings of the predecessor study, this measure was expected to correlate with the Relational Mobility Scale, even though the latter asks for one's social environment as opposed to one's personal relational mobility.

*Demographics and Socio-economic Status.* Next to such questions as gender, age, nationality, school year, and number of siblings, questions concerning the socio-economic status of the students were also included. Asking students about their own profession, income, and level of education was expected to be of little use to assess their actual socio-economic status. Therefore,

annual family income as well as the profession and education of the respondents' parents were surveyed. An index of SES was created by combining these variables as follows.

Family income per head was computed under the assumption that both parents were living in the same household and all children still had to be supported. Since the living expenses for every additional family member are not equal to those of a person living alone, the commonly used multiplier of 0.7 was applied for the second parent as well as for siblings. The resulting formula is  $family\ income / (1 + 0.7 + 0.7 * (number\ of\ sisters + number\ of\ brothers))$ . This income per person was divided into four equally sized groups by using the quartile function so that the final measure for household income was an ordinal one ranging from 1 to 4, with higher numbers indicating higher in respect to the remaining sample.

When a mother is a fulltime housewife or works part time this might indicate financial security and reduced necessity for following the double-earner model. However, other reasons such as small children at home or difficulties in re-entering the (full-time) workforce could signify the opposite. Thus only father's profession was used in the index of SES.

Fathers' professions were separated into five ordinal categories: 1 = unemployed and part timers, 2 = professions with little or no qualification, 3 = Assistant positions, self-employed, creative professions and those requiring vocational training, 4 = company employees (*sararīman*, *kaishain*) teachers, and those in business/accounting, and 5 = highly qualified and academic positions, technical professions, public office.

As for education, both parents were considered in the SES-index. Three categories were created, separating parents into those with a high school degree or lower (1), those who had completed a 2-year secondary education/college (2), and those with 4-year secondary education or above (3). These variables were normalized to create the final index of SES by dividing the variables through their respective number of categories. The used formula, which attributes equal importance to any of those three aspects is:  $SES = father's\ profession / 5 + income\ quartiles / 4 + ((education\ of\ mother + education\ of\ father) / 2) / 3$

The resulting index variable was then recoded into an ordinal variable with 3 categories, using the quantile function to arrive at groups of roughly equal size within the sample. This measure of SES is dubitable due to various reasons which should be mentioned at this point. Firstly, there was a large number of respondents who either didn't know or did not want to report their family income. Secondly, actual size of the household was not surveyed, which meant that the assumption of both parents being alive and cohabiting while still having to support all of their children might be incorrect in some of the cases included. Three generation households are also not reflected here. Thirdly, even though profession of parents was surveyed,

it was an open question. Thus, a large portion of fathers was labelled either as *sararīman* or *kaishain*. These categories might in fact exhibit positions with varying qualification requirements.

A categorization of professions beforehand and a corresponding list of choices for the respondents would have yielded much more useful data. And lastly, one may argue that the socio-economic situation of families producing university students is likely to be rather similar, which can be expected to have a detrimental effect on the clarity of possible effects of SES on relational mobility or really any other dependent variable. The measurement flaws described here have important implications for the following analysis, which is why they are mentioned here, in addition to 7.4., where the limitations of the present thesis will be discussed.

*Primary self-disclosure target.* Respondents were asked to indicate the person with whom they could most likely talk about anything, to whom self-disclosure was highest. The options were any of the three close friends of sections C, D and E in the questionnaire, as well as a fourth option which was left blank. This was to determine whether it was indeed same-sex close friends towards whom disclosure is strongest, as the literature reviewed in chapter 2.4 suggests.

*Intercultural experience.* As an additional question, respondents were asked whether they had any experience living overseas for a duration longer than six months as it has been shown in previous research that intercultural experience influences intensity and patterns of self-disclosure (e.g. Kasahara 2011).

*Items on different-sex friendships.* These items originally served the purpose of determining whether a barrier was felt when it comes to disclosure in different-sex friendships due to reasons of sexuality or romantic feelings. The statements were phrased „Once married, it is difficult to stay friends with people of a different sex” and “There is always something sexual involved in friendships between men and women”. For these items too, a visual analogue scale was employed. Answers range from 0 to 97, where a higher value expresses greater approval of the statement.

These last two aspects (intercultural experience and students’ opinions about different-sex friendships) are to be understood as additional items without direct connection to the main research question. They will not be part of the analysis in this thesis, but might be included in future research projects.

## 5. Descriptive statistics

In this chapter, descriptive statistics will be presented. After a short overview of the sample, individual self-disclosure items will be reported, both from the 5-item self-disclosure scale by Schug *et al.* (2010), as well as the 10-item Self-Disclosure Index by Miller *et al.* (1983). Following the individual items of disclosure, additive indices of these measurements will be presented. Means of other main variables, including subjective closeness and trust in the durability of the friendship, will also be reported. Tables are generally split into male and female students' responses, as well as means for the total sample.

### 5.1. Sample

As stated above, the sample consists of 479 students from a Japanese public university in the Kantō region. The respondents were, on average, 19.45 years old ( $SD = 1.861$ ). It should be noted that the process of convenience sampling resulted in a sample where the male respondents (19.66 years,  $SD = 2.184$ ) are older than their female colleagues (19.15 years,  $SD = 1.185$ ) and correspondingly also, on average, further advanced in their university education. Table 2 shows the respondents' distribution by gender and year at university.

Table 2: Respondents by gender and year at university

		Year at university				Total
		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year and above	
Gender	Male	98	108	60	18	284
	Female	92	57	33	11	193
	fix	1	1	0	0	2
Total		191	166	93	29	<b>479</b>

The few graduate students which answered the questionnaire were combined with senior undergraduates into the fourth category. As can be seen, the proportion of men is considerably higher in this sample (male: 59.7%, female: 40.3%). This reflects the actual distribution at the university to some degree (36% women as of May 2016, according to the university homepage, which will not be referenced due to reasons of anonymity), however, representativity in respect to gender cannot be assumed. There were only 2 respondents who defined themselves as

anything other than ‘male’ or ‘female’, namely ‘ftx’<sup>2</sup>. These cases, due to their small number, are not considered separately in this thesis.

Nine respondents, or 1.9%, were not Japanese citizens, with four individuals holding a Korean citizenship, two Americans, one Argentinian, one Chinese national, and one respondent who identified as Taiwanese. 6.0% of male students and 7.9% of female students reported to have spent 6 months or more overseas. Because of their small number and because cultural differences or effects of acculturation (see Kito 2005, Kasahara 2011) were not a main research interest of this thesis (and could not be assumed simply based on citizenship), no subsample was created from these students.

## 5.2. Individual topics of self-disclosure

The individual items on self-disclosure will be presented both separated by gender as well as disclosure-target. The 5-items used to measure self-disclosure in the predecessor study will be presented first, followed by the 10-items which are part of the Self-Disclosure Index (Miller *et al.* 1983). Mean scores are presented in the following section, even though the data resulting from both self-disclosure measures would strictly have to be treated as ordinal variables. As only five possible answer categories were given in the questionnaire, offering the medians is not considered to be practical.

### 5.2.1. Items of the self-disclosure scale (5-item measure)

Table 3 reports mean values of self-disclosure to same-sex friend by gender and for the total sample. The five topics of self-disclosure are those surveyed also by Schug *et al.* (2010), however, no comparable overview was published in the predecessor study.

Table 3: Self-disclosure to same-sex friend by topic. Items of the self-disclosure scale (5-item measure)

Items	Male			Female			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Your biggest secret	282	3.04	1.40	192	2.61	1.47	474	2.87	1.44
Your most embarrassing experience	282	3.52	1.27	192	3.19	1.41	474	3.39	1.34
Your greatest failure	282	3.65	1.21	192	3.37	1.37	474	3.54	1.28
Your greatest worry	282	3.32	1.33	192	3.43	1.40	474	3.37	1.36
The worst thing that ever happened to you	282	3.67	1.18	192	3.51	1.29	474	3.61	1.22

Note: Respondents were asked: „Do you speak to this friend about the following topics? Please assess how likely that is?” Answers were given on a five-point scale with the labels “Not likely” (1) and “Extremely likely” (5) attached on either side.

<sup>2</sup> Female to x: This abbreviation refers to biologically female persons who do not concretely define their gender identity (hence the “x”). FTM, for example, stands for biological women who tend to define themselves as male.

Respondents were asked to assess the likelihood that they would talk to their friends about these five topics on a scale with five points, with 5 standing for high likelihood. In case of the male sample, averages range from 3.04 to 3.67 and female respondents report mean values between 2.61 and 3.51. Respondents of both genders considered it least likely to talk about their biggest secret and most likely to talk about the worst thing that ever happened to them.

In Table 4, mean values of self-disclosure to different-sex friend are reported. Again, respondents considered it least likely to share their biggest secret, with mean scores of 2.52 in the case of men and 1.94 in the case of women. Also, the item most readily talked about is the same in cross-sex friendships as it is in same-sex friendships; ‘the worst thing that ever happened to you’, with 3.23 for the male and 2.77 for the female sample.

Table 4: Self-disclosure to different-sex friend by topic. Items of the self-disclosure scale (5-item measure)

Items	Male			Female			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Your biggest secret	244	2.52	1.38	169	1.94	1.12	413	2.28	1.31
Your most embarrassing experience	243	2.89	1.34	169	2.46	1.36	412	2.72	1.36
Your greatest failure	244	3.11	1.31	169	2.65	1.40	413	2.92	1.36
Your greatest worry	244	3.02	1.32	169	2.63	1.40	413	2.86	1.67
The worst thing that ever happened to you	243	3.23	1.26	169	2.77	1.36	412	3.04	1.32

Note: Respondents were asked: „Do you speak to this friend about the following topics? Please assess how likely that is?” Answers were given on a five-point scale with the labels “Not likely” (1) and “Extremely likely” (5) attached on either side.

### 5.2.2. Items of the Self-Disclosure Index (10-item measure)

Tables 5 and 6 show results of the alternative measure of self-disclosure, the Self-Disclosure Index by Miller *et al.* (1983). Students were asked to what degree they talked to their friends about the given topics and the outer points of the likert-type scale were labelled with (1) “not at all” and (5) “fairly often”.

Table 5 shows self-disclosure to same-sex friend. Among the topics proposed by Miller *et al.* (1983), both male and female students’ average scores are highest for ‘my personal habits’. High levels of disclosure are also reported when it comes to ‘What is important to you and your life’. In the case of men, self-disclosure about their close relationships with other people is just as high as that of the previous item and thus ranks second place. In the case of female respondents, however, ‘your deepest feelings’ are found to be the third most-frequently disclosed topic.

Table 5: Self-disclosure to same-sex friend by topic. Items of the Self-Disclosure Index (10-item measure)

Items	Male			Female			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Your personal habits	282	4.03	0.97	192	4.08	0.92	474	4.05	0.95
Things you have done in the past which you feel guilty about	282	3.52	1.25	191	3.12	1.16	473	3.36	1.23
Things you wouldn't do in public	282	3.57	1.28	191	3.21	1.15	473	3.42	1.24
Your deepest feelings	282	3.49	1.27	192	3.63	1.12	474	3.55	1.22
What you like and dislike about yourself	282	3.35	1.28	191	3.37	1.17	471	3.36	1.24
What is important to you and your life	282	3.65	1.13	191	3.82	1.00	473	3.72	1.08
What's important for you to be you	282	3.21	1.30	192	3.03	1.29	474	3.14	1.30
The things you most fear	282	3.22	1.31	192	2.91	1.29	474	3.09	1.31
Things you hold pride in	282	3.46	1.23	191	3.02	1.14	473	3.29	1.22
Your close relationships with other people	282	3.65	1.14	191	3.37	1.12	473	3.54	1.14

Note: Respondents were asked: „To what degree do you talk to this friend about the following topics? Please circle the most appropriate answer.” Answers were given on a five-point scale with the labels “Not at all” (1) and “Fairly often” (5) attached on either side.

The topics least frequently shared with their same-sex close friends are ‘The things you most fear’ and ‘What’s important for you to be you’. While female students disclose least on the first topic, male students share least frequently in regard to the other. Female students also report low scores of self-disclosure for ‘things you hold pride in’ and things of the past which they feel guilty about.

Table 6: Self-disclosure to different-sex friend by topic. Items of the Self-Disclosure Index (10-item measure)

Items	Male			Female			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Your personal habits	245	3.70	1.07	169	3.26	1.19	414	3.52	1.14
Things you have done in the past which you feel guilty about	245	2.94	1.21	169	2.61	1.21	414	2.80	1.22
Things you wouldn't do in public	245	2.80	1.17	169	2.49	1.12	414	2.67	1.16
Your deepest feelings	245	3.25	1.27	169	2.79	1.29	414	3.06	1.29
What you like and dislike about yourself	244	3.25	1.22	169	2.88	1.20	413	3.10	1.22
What is important to you and your life	245	3.60	1.07	169	3.21	1.17	414	3.44	1.13
What's important for you to be you	245	2.93	1.22	168	2.70	1.17	413	2.84	1.20
The things you most fear	245	2.80	1.27	169	2.57	1.22	414	2.70	1.25
Things you hold pride in	245	3.23	1.18	169	2.66	1.12	414	3.00	1.19
Your close relationships with other people	245	3.34	1.16	169	2.85	1.21	414	3.14	1.20

Note: Respondents were asked: „To what degree do you talk to this friend about the following topics? Please circle the most appropriate answer.” Answers were given on a five-point scale with the labels “Not at all” (1) and “Fairly often” (5) attached on either side.

Table 6 shows self-disclosure to different-sex friend by topic of the Self-Disclosure Index. Among the 10 topics offered in the questionnaire, both genders reported to be sharing most about their personal habits (3.70 in the case of male students, and 3.26 in the case of female

students), and those things which are important to them and their lives (3.60 for male and 3.21 for female students). Topics of comparatively little disclosure were ‘things you wouldn’t do in public’ (2.80 in the case of men and 2.49 in the case of women), as well as ‘the things you most fear’ (2.80 in the case of men and 2.57 in the case of women). Statistical significance of gender differences and differences between types of friendships remain to be examined in the next chapter.

### 5.3. Self-disclosure indices

As previously mentioned, both batteries of items on self-disclosure are used to create non-weighted additive indices. Table 7 shows means for these indices towards both same-sex and different-sex friends.

*Table 7: Indices of self-disclosure by disclosure target and gender of respondent*

Measure of self-disclosure	Disclosure target	Male			Female			Total		
		N	Mean	SD	N	Mean	SD	N	Mean	SD
Self-disclosure scale (5-item measure)	Same-sex friend	282	3.44	1.02	192	3.22	1.11	474	3.35	1.06
	Different-sex friend	242	2.96	1.02	169	2.49	1.07	411	2.77	1.06
Self-Disclosure Index (10-item measure)	Same-sex friend	280	3.52	0.86	188	3.36	0.71	468	3.45	.80
	Different-sex friend	244	3.18	0.74	165	2.80	0.81	412	3.03	.79

Using the self-disclosure scale, mean responses ranged from 2.49 to 3.44, whereas the lowest average is reported for female students’ disclosure to their close friends of a different-sex and highest is reported for male students’ disclosure to friends of the same sex. Similar results are found in case of the Self-Disclosure Index where means range from 2.80 to 3.52. Comparing both measures of self-disclosure, it can be noted that higher means were reported when using the 10-item Self-Disclosure Index as opposed to the 5-item self-disclosure scale. This is probably due to the slightly deeper level of self-disclosure surveyed by the 5-item measure.

### 5.4. Relational mobility

Respondent’s assessment of the relational mobility in their immediate society of friends and acquaintances was measured via agreement to 12 items on 6-point scales labelled 1 to 6. (The theoretical middle of the scale would therefore be 3.5.) Six of the twelve items that were part of the relational mobility measure – items 4, 5, 7, 9, 11 and 12 – were negatively phrased and thus inverted for creation of the additive index and further analysis. In table 8, however, mean



responses to those items are reported before inverting, so for those items higher values express a lower degree of relational mobility perceived. To allow for better legibility, inverted items are reported combined in the lower part of the table.

*Table 8: Relational Mobility Scale. Mean responses by respondents' gender.*

	<b>Male</b>			<b>Female</b>			<b>Total</b>		
<b>Positively phrased items</b>	N	Mean	SD	N	Mean	SD	N	Mean	SD
(1) They (your friends) have many chances to get to know other people.	284	4.62	0.86	193	4.74	0.78	479	4.67	0.83
(2) They frequently have conversations with people they have never met before.	284	4.08	0.97	193	4.34	0.93	479	4.18	0.96
(3) They can usually choose who they interact with.	284	4.66	0.91	191	4.70	0.85	477	4.68	0.88
(6) If they did not like the group they belong to currently, they would move to a new group.	283	3.84	1.28	191	3.91	1.06	479	3.87	1.19
(8) It is easy for them to meet new people.	284	3.93	1.17	192	4.06	1.04	478	3.98	1.12
(10) They can choose which groups or organizations they belong to.	284	4.38	0.97	193	4.48	0.87	479	4.42	0.94
<b>Negatively phrased items</b>	N	Mean	SD	N	Mean	SD	N	Mean	SD
(4) They have few opportunities to find new friends.	282	2.89	1.07	193	2.81	0.95	477	2.86	1.03
(5) For them it is uncommon to have conversations with people they have never met before.	283	3.34	1.17	191	3.02	1.08	476	3.21	1.14
(7) It is often the case that they cannot freely choose who they associate with.	284	3.22	1.19	193	3.40	1.04	479	3.29	1.14
(9) Even if they were not satisfied with the group they belonged to, they would probably still continue to stay in the group.	282	3.80	1.11	193	3.76	0.95	477	3.79	1.05
(11) It is often the case that they have no choice but to stay in relationships, even if they are not satisfied with them.	283	3.70	1.14	193	3.74	0.97	478	3.72	1.08
(12) It is often the case that these people have no choice but to stay in groups even though they would like to leave.	282	3.71	1.13	193	3.78	0.96	477	3.73	1.06

Mean responses to the items that were positively phrased range from 3.84 to 4.66 for male and 3.91 to 4.74 for female respondents. In case of the negatively phrased items, means range from 2.89 to 3.80 and 2.81 to 3.78 for males and females respectively. Respondents generally agree most strongly with the statement that their friends and acquaintances have many chances to meet new people (4.67 for the total sample) and that they can choose freely whom to interact with (4.68). Accordingly, the least supported statement is that they have few opportunities to find new friends (2.86) and that it is uncommon for them to have conversations with new people (3.21). Statements which survey similar aspects of relational mobility and only differ in the fact that one of them is positively, the other one negatively phrased, generally yield corresponding results insofar as one of them tends to be rather supported (above the theoretical middle of 3.5), the other one rather dismissed (below the theoretical middle of 3.5). This is not true for all of these pairs, however. The corresponding items 6 and 9 – “If they didn’t like a group they belonged to, they would move to a new group” and “If they weren’t satisfied with a group they belonged to, they would still stay in this group” – were, on average, both slightly more strongly

supported (item 6: 3.87, item 9: 3.79) than dismissed. This is an indication for a certain lack of conceptual clarity within the measuring instrument but taking into account the other items for which such a results cannot be observed, the consequences can be considered as minor. Also, in order to preserve the comparability to the predecessor study, where no comparable verification was undertaken, the index of Relational Mobility is created from all of the 12 items.

After inverting the negatively phrased items and combining all 12 items to calculate the Relational Mobility Scale-index, the mean score for this variable was 3.93 ( $SD = .57$ ) for the total sample. Male students reported an average of 3.91 ( $SD = .60$ ) and the mean score for female students was 3.97 ( $SD = .52$ ).

Schug *et al.* (2010) also utilized a measure they called ‘personal relational mobility’. For this measure, participants were asked about the number of new friendships and acquaintances over the past month and past three months (2010:1475). In the survey used for the present study, acquaintances were left out and instead respondents were asked how many new friends (*yūjin*) and close friends (*shinyū*) they had met over the past year (see chapter 4.2). Responses varied greatly, ranging from 0 to 200 new friends and 0 to 80 new close friends. Correspondingly, means were quite high, at 25.74 ( $SD = 26.39$ ) and 2.59 ( $SD = 5.71$ ) respectively. 5%-trimmed means were still at 22.82 and 1.73 for ‘normal’ and close friends respectively. In order to provide a picture that is more suited for analysis, categories were created. These are reflected in table 9.

Table 9: Number of new friends and close friends over the past year (personal relational mobility)

	Total sample		Excluding freshmen	
	Male (%)	Female (%)	Male (%)	Female (%)
<b>New friends</b>	(N=273)	(N = 185)	(N=178)	(N = 95)
0	4.0	2.7	5.1	4.2
1 to 3	7.7	12.6	10.1	16.8
4 to 10	28.6	25.1	31.5	30.5
11 to 20	18.7	14.8	18.0	13.7
21 to 40	20.5	26.8	16.3	22.1
41 and more	20.5	18.0	19.1	12.6
<b>New close friends</b>	(N=273)	(N=183)	(N=178)	(N=97)
0	45.4	47.6	49.4	49.5
1 or 2	20.9	28.1	20.8	27.8
3 to 5	20.5	17.8	16.9	15.5
6 and more	13.2	6.5	12.9	7.2

Since possibilities to meet new people and form new friendships are expected to be greater among freshmen, the right half of table 9 shows how the proportions change, when excluding first year students. Indeed, percentages shift toward the lower groups, although these shifts are not large.

Although the amount of new close friends was surveyed next to the amount of ‘regular’ or ‘normal’ friends, for the present Master’s thesis it will suffice to treat only the latter as a proxy for personal relational mobility. Even though this measure is not exactly like the one used in the predecessor study, the underlying concept is very similar and is assumed to express to some degree the personal relational mobility of an individual. Moreover, the fact that about half of the respondents report to have gained no close friends within the past year would have a detrimental effect on the analysis, which is another reason to only consider new ‘normal’ friends.

## 5.5. Other main variables

*Subjective closeness.* Respondents were asked to assess relationship-closeness to their friends i.e. they should evaluate how close they felt to the specific friend I) in comparison to their other friendships and II) in comparison to friendships of others which they know about. Marks were placed on a 97-millimeter visual analogue scale, results of which are reported in table 10. The index created from these two items is also reported for same-sex and different-sex friendships.

Table 10: Subjective closeness by target friend. Means for individual items and indices

Target	In comparison to...	Male			Female			Total		
		N	Mean	SD	N	Mean	SD	N	Mean	SD
Same-sex friend	...own friendships	279	77,66	13,77	192	80,15	13,23	471	68,62	29,20
	...others’ friendships	278	72,41	17,08	190	69,37	19,16	468	62,03	29,16
Different-sex friend	...own friendships	241	64,20	21,72	167	59,61	23,11	408	62,32	22,38
	...others’ friendships	240	57,15	23,04	166	53,12	25,62	406	55,50	24,18
Subjective Closeness Index (same-sex friend)		278	75,03	14,26	189	75,12	13,53	467	75,07	13,95
Subjective Closeness Index (different-sex friend)		240	60,63	20,80	165	56,68	22,60	405	59,02	21,61

The highest result is reported for female same-sex friendships when respondents consider only their own relationships to compare with (80.15). However, when considering friendships of other people their assessment of closeness is noticeably lower (69.37). Male students report slightly lower averages when comparing their closest same-sex friendships to all of their own relationships (77.66) but when taking into account other people’s relationships this does not

result in as large a drop in assessment of closeness (72.41). When it comes to different-sex friendships it is the male respondents who report higher average closeness for both items (64.20 and 57.15) than their female colleagues (59.61 and 53.12). Looking at the combined index, some of these subtle differences disappear.

*Trust in friendship stability.* Table 11 shows respondents' average trust in friendship durability/stability by sex and type of friendship. Respondents were asked to assess the likelihood that their friendships would still be the same after ten years. On an optical scale from 0 to 97, where 97 expresses the highest likelihood of still being friends 10 years later, male students reported an average of 76.68 in respect to their best same-sex friend and 54.14 in respect to their best different-sex friend. In the case of female students these averages were quite similar at 76.69 and 52.83 respectively.

Table 11: Trust in friendship stability. Mean responses

Trust in friendship stability	Male			Female			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Same-sex friendship	279	76.68	19.05	192	76.69	19.62	471	76.69	19.26
Different-sex friendship	241	54.14	27.67	167	50.95	28.98	408	52.83	28.22

*Motivation to engage in self-disclosure.* Respondents were asked to indicate the degree to which they agree with the statement "Talking to friends about my own worries is a good way to strengthen the relationship". The same visual analogue scale as above was used. Male students report an approval of 73.58 ( $n = 281$ ,  $SD = 20.61$ ) on average and female students report an average of 73.87 ( $n = 193$ ,  $SD = 17.53$ ), resulting in a total average of 73.66 ( $n = 476$ ,  $SD = 19.39$ ).

*Primary target of self-disclosure.* At the very end of the questionnaire, respondents were asked whom they could talk to most freely. 79.8% of male students and 75.4% of female students replied that the person they could talk to about almost anything was their best same-sex friend. 14.2% of male students and 8.2% of female students instead chose their different-sex friend (see table 12). Among the 6.0% of male and 16.4% percent of female respondents who chose somebody other than the above two, most considered it to be either their mother, one of their siblings, or their boyfriend/girlfriend. Overall, these findings support the dominant view in existing literature on students' self-disclosure (Jourard, 1971b; Enomoto 1987, 1997) saying that disclosure in this stage of life is generally greatest to same-sex friends, as opposed to different-sex friends or family members.

Table 12: Respondents' primary disclosure targets

	N	Primary disclosure target (%) (person with whom one can most likely talk about anything)		
		Same-sex friend	Different-sex friend	Somebody else
Male	267	79.8% (213)	14.2% (38)	6.0% (16)
Female	183	75.4% (138)	8.2% (15)	16.4% (30)
Total	450	78.0%(351)	11.8%(52)	10.2%(46)

*Socio-economic status.* Average annual family income, with a mean of 9,136,000 Yen for the total sample (SD = 8,760,000) stands out as an item with very low response rate. Only 38.0% of all 479 respondents replied to this question. Also, standard deviation is very high. The median of annual family income – which is 8,000,000 Yen – might be more appropriate measure in this case. Also it can be expected, that those with higher incomes have more incentive to actually report it. These circumstances are part of what made it difficult to devise a measure of SES.

Table 13: Three groups of socio-economic status

SES	Male (N=100)	Female (N=43)	Total (N=143)
Low (%)	41.0	23.3	35.7
Medium (%)	27.0	46.5	32.9
High (%)	32.0	30.2	31.5
Total (%)	100.0	100.0	100.1

As described in the previous chapter, the measure of socio-economic status was calculated from father's profession, father's education, and household income. Before categorization, means on measure from 0 to 1 were .70 (N=105, SD=.17) for male students, and .74 (N=47, SD=.15) for female students. The distribution across the groups after categorization is reported in table 13. In this case, "high", "medium", and "low" SES are to be understood only as relative to the whole sample. For the total sample these groups are about the same size, as intended. However, some variation by gender can be observed

## 6. Inferential analysis

In this chapter, group comparisons and correlation results will be presented. All variables will be tested for gender-differences. Furthermore, analysis will focus on a mediation effect found in the predecessor study. In a next step, a path analysis including the main variables will be conducted. At this point it should be stated that many of the variables do not fulfill the

assumptions required for some of the statistical procedures conducted in the predecessor study. In this thesis, variables will be treated according to their nature as long as possible, but when certain procedures have to be carried out in order to provide comparability to the predecessor study, specific assumptions (especially of normality and homoscedasticity) will be violated – this is also the case for the proposed path analysis. As for the interpretation of effect sizes, rules proposed by Cohen (1988) and Evans (1996) will be applied. In the case of non-parametric group comparisons,  $r = .10-.29$  will be considered ‘small’,  $r = .30-.49$  will be considered ‘medium’, and  $r \geq .5$  will be considered ‘large’. Associations produced by correlation analysis will be interpreted as follows:  $.00-.19 =$  ‘very weak’,  $.20-.39 =$  ‘weak’,  $.40-.59 =$  ‘moderate’,  $.60-.79 =$  ‘strong’,  $.80-1.0 =$  ‘very strong’.

## **6.1. Self-disclosure and gender-differences by type of friendship**

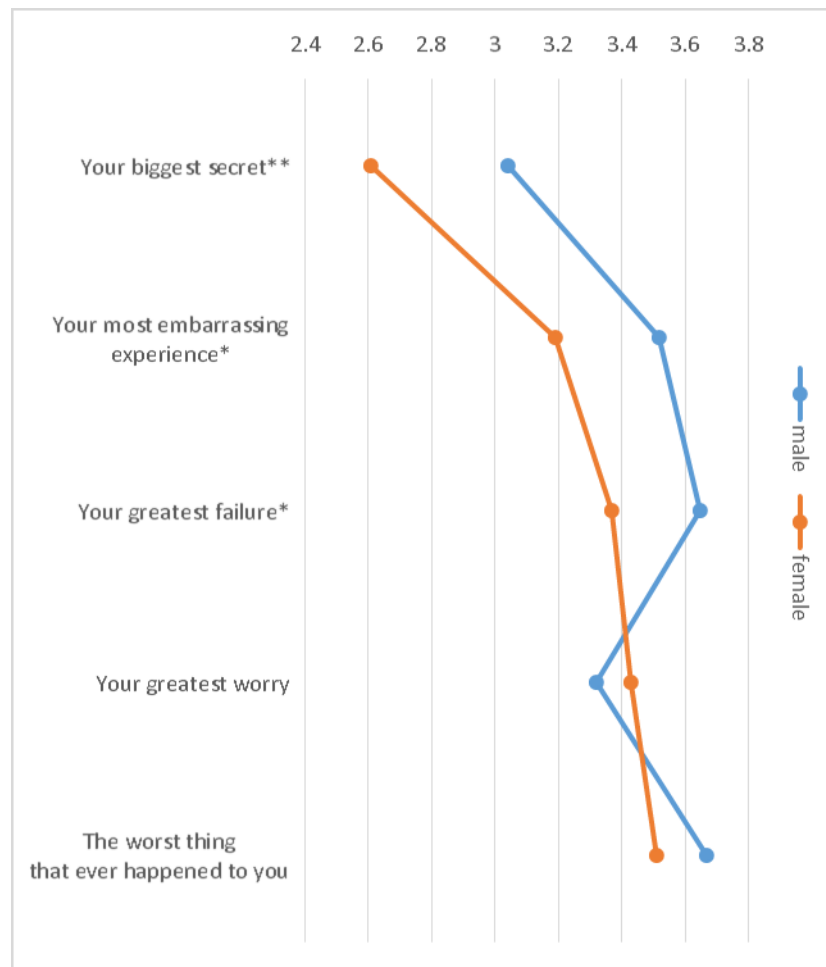
In this section it will be investigated whether differences in self-disclosure by type of friendship – i.e. when the disclosure target is either a same-sex or a different-sex friend – and gender of respondent, which could be seen in the previous chapter, are statistically significant. Individual items making up the self-disclosure measures will be considered, as well as the final indices. For reasons of comprehensibility, these results will be separated by measure of self-disclosure and disclosure target.

### **6.1.1. Self-disclosure scale (5-item measure)**

Figure 1 shows disclosure – based on the 5-item measure by Schug *et al.* (2010) – of male and female students to same-sex friend. Significant gender-differences based on Mann-Whitney *U*-tests are marked with asterisks.

*U*-tests yield significant gender-differences in self-disclosure of three out of these five topics. Female respondents deemed it significantly less likely than men to disclose to their best same-sex friend when it came to their biggest secret ( $u = 22568.0, p = .002, r = .145$ ), their most embarrassing experience ( $u = 23711.0, p = .018, r = .109$ ), and their greatest failure ( $u = 24200.5, p = .042, r = .093$ ). No significant differences were found for the other two items. Judging from the small effect sizes reported here – ranging from  $r = .093$  to  $r = .145$  – the influence of gender appears to be limited.

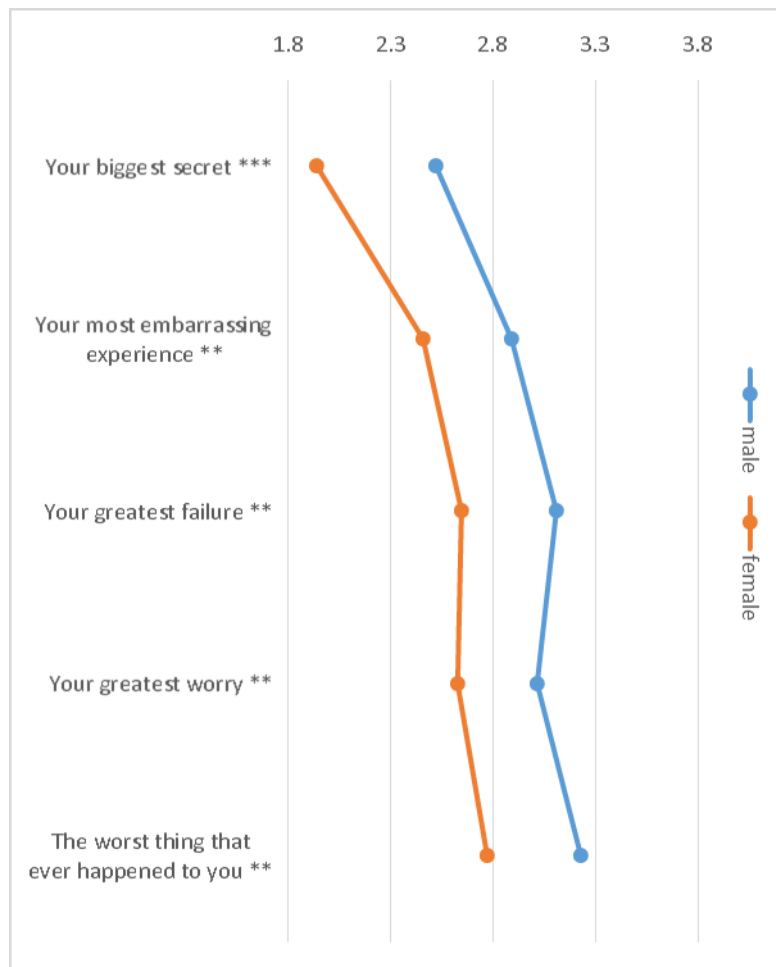
Figure 1: Self-disclosure in same-sex friendships by topic and gender. Items of the self-disclosure scale (5-item measure)



Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

The results for self-disclosure to different-sex friend can be seen in Figure 2. In this case, gender differences for all five topics are significant. Female students find it significantly less likely than male students to disclose to their different-sex friend: their biggest secret ( $u = 15820.0$ ,  $p < .001$ ,  $r = .206$ ), their most embarrassing experience ( $u = 16788.0$ ,  $p = .001$ ,  $r = .159$ ), their greatest failure ( $u = 16635.5$ ,  $p = .001$ ,  $r = .168$ ), their greatest worry ( $u = 17351.0$ ,  $p = .005$ ,  $r = .138$ ), and the worst thing that ever happened to them ( $u = 16500.0$ ,  $p = .001$ ,  $r = .171$ ). Effect sizes are (non-significantly) greater for different-sex friendships (yet still ‘small’ ranging from  $r = .138$  to  $r = .206$ ).

Figure 2: Self-disclosure in different-sex friendships by topic and gender. Items of the self-disclosure scale (5-item measure)



Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

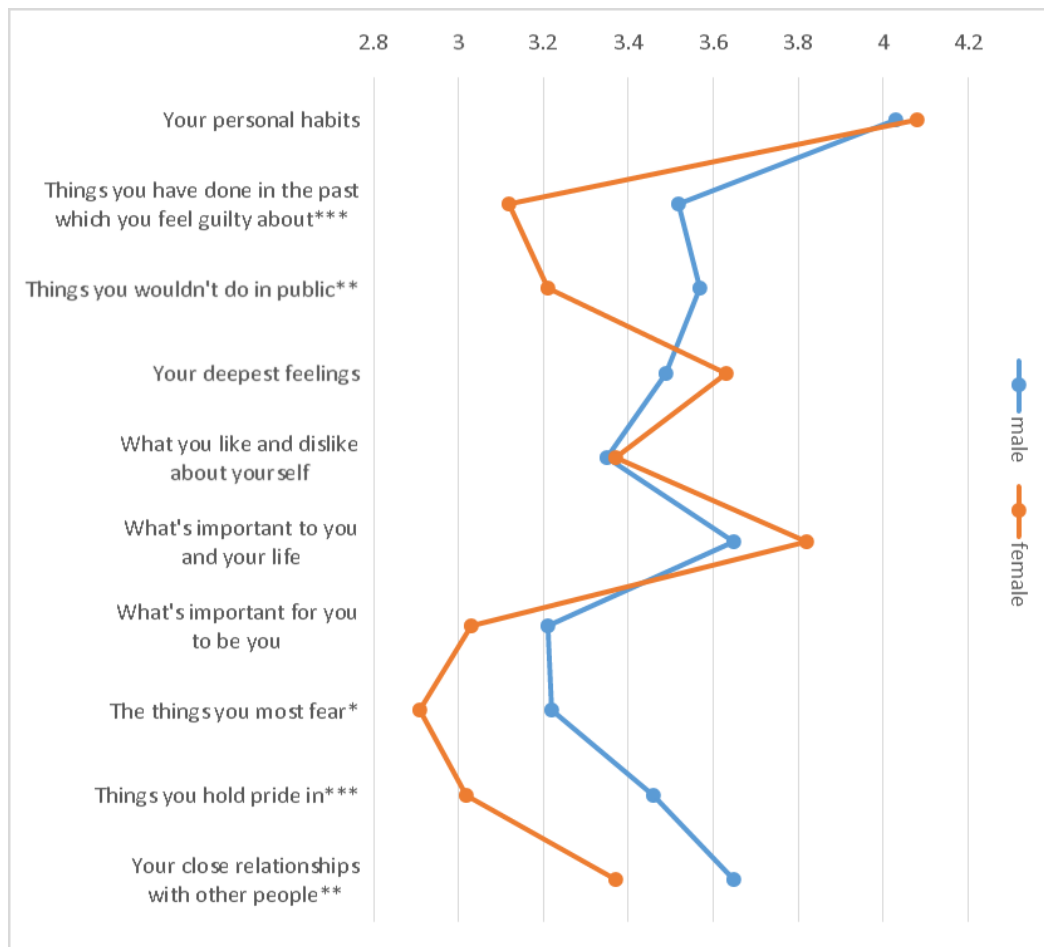
When comparing overall results of the combined self-disclosure scale, the greater disclosure of male students in same-sex friendships as opposed to their female colleagues only approaches significance ( $u = 24325.5$ ,  $p = .060$ ). The finding of men's greater disclosure in different-sex friendships, however, is highly significant ( $u = 14758.5$ ,  $p < .001$ ).

### 6.1.2. Self-Disclosure Index (10-item measure)

The 10-items which are part of the Self-Disclosure Index by Miller *et al.* (1983) also reveal significant gender differences. Figure 3 shows the results toward same-sex friend. To give a better overview, results of the Mann-Whitney  $U$ -tests are reported in table 14. (Even though the  $U$ -test works with ranks, means are reported instead of the median, as they give a more comprehensible picture of the differences.)



Figure 3: Self-disclosure in same-sex friendships by topic and gender. Items of the Self-Disclosure Index (10-item measure)



Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

The results indicate that there are gender differences in self-disclosure to same-sex friend for half of the 10 topics included in the index. These topics are guilt-inducing experiences of the respondents ( $r = .173$ ), things they wouldn't do in public ( $r = .156$ ), things they most fear ( $r = .118$ ), things they hold pride in ( $r = .191$ ), and their close relationships with other people ( $r = .126$ ). All of the observed effects indicate lower self-disclosure on part of female students. Yet for the remaining five of the included topics, no gender differences were observed.

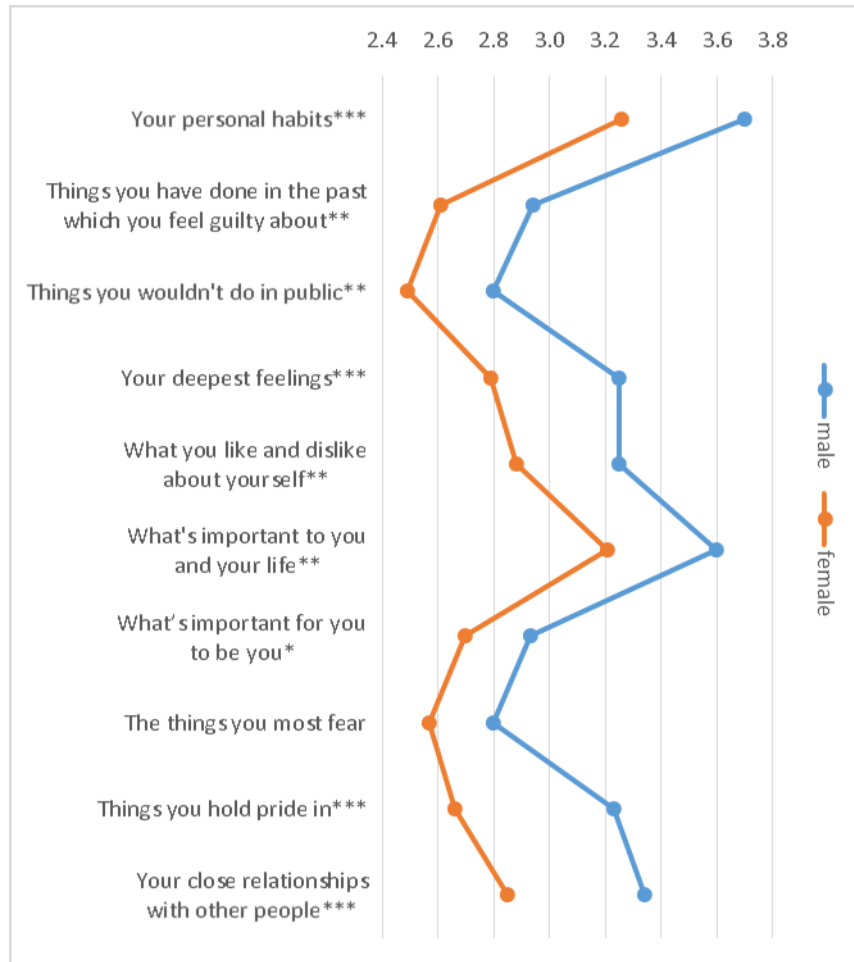
Table 14: Gender-differences in self-disclosure to same-sex friends. Items of the Self-Disclosure Index (10-item measure)

Items	Male	Female	U-test	p	N	r
Your personal habits	4.03	4.08	26536.5	.693	474	.018
Things you have done in the past which you feel guilty about***	3.52	3.12	21619.5	.000	473	.173
Things you wouldn't do in public**	3.57	3.21	22134.0	.001	473	.156
Your deepest feelings	3.49	3.63	25726.0	.342	474	.044
What you like and dislike about yourself	3.35	3.37	26725.0	.992	471	.001
What is important to you and your life	3.65	3.82	24958.0	.157	473	.065
What's important for you to be you	3.21	3.03	24913.0	.131	474	.069
The things you most fear*	3.22	2.91	23384.0	.010	474	.118
Things you hold pride in***	3.46	3.02	21021.5	.000	473	.191
Your close relationships with other people**	3.65	3.37	23066.5	.006	473	.126

Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

There is no indication of gender differences in same-sex friendships when it comes to the degree to which students talk about their habits, deepest feelings, things they like or dislike about themselves, as well as things important to them or which they consider to define themselves.

Figure 4: Self-disclosure in different-sex friendships by topic and gender. Items of the Self-Disclosure Index (10-item measure)



Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

Table 15: Gender-differences in self-disclosure to different-sex friends. Items of the Self-Disclosure Index (10-item measure)

Items	Male	Female	U-test	p	N	r
Your personal habits***	3.70	3.26	16299.0	.000	414	.189
Things you have done in the past which you feel guilty about**	2.94	2.61	17521.0	.006	414	.134
Things you wouldn't do in public**	2.80	2.49	17603.0	.007	414	.132
Your deepest feelings***	3.25	2.79	16590.0	.000	414	.174
What you like and dislike about yourself**	3.25	2.88	17095.0	.002	413	.149
What is important to you and your life**	3.60	3.21	16733.0	.001	414	.169
What's important for you to be you	2.93	2.70	18312.0	.050	413	.096
The things you most fear*	2.80	2.57	18560.5	.066	414	.090
Things you hold pride in***	3.23	2.66	14998.5	.000	414	.241
Your close relationships with other people***	3.34	2.85	15967.0	.000	414	.200

Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

Figure 4 and table 15 show male and female responses when asked to what degree they discussed various topics with their different-sex friend. In the case of different-sex friendships, a significant gender-difference is observed for all except one topic. No significant difference is found in respondents' assessment of how much they talked about things they most feared. For all of the remaining 9 items, male students' self-disclosure to their close different-sex friend is significantly higher. As for the Self-disclosure Index overall, men scored significantly higher than women for both same-sex ( $u = 23341, p = .038$ ) and different-sex friendships ( $u = 14758.5, p < .001$ ).

### **6.1.3. Differences in overall self-disclosure by disclosure-target**

Next, self-disclosure as measured with both self-disclosure indices is compared by disclosure target. Due to the non-normal distribution of the data, Wilcoxon signed-rank tests were conducted, indicating that self-disclosure was lower to different-sex friends than to same-sex friends both when using the 5-item self-disclosure scale ( $z = -11.021, p < .001$ ) and the 10-item Self-Disclosure Index ( $z = -11.137, p < .001$ ), with medium effect sizes ( $r = .384$  and  $r = .390$  respectively). The effect sizes between these two measures are very alike, hinting at their comparability.

Wilcoxon tests were also conducted after separating by gender of respondent. Results for the 5-item scale are highly significant both for men ( $z = -7.592, p < .001$ ) and women ( $z = -8.065, p < .001$ ), with higher disclosure in same-sex friendships. Using the 10-item scale produces similar results for male ( $z = -7.849, p < .001$ ) and female students ( $z = -7.977, p < .001$ ). Results for both indices show greater effect sizes in the case of female students ( $r = .439$  and  $r = .439$  respectively) as opposed to their male colleagues ( $r = .345$  and  $r = .356$  respectively), even though all of the observed effects remain medium effects according to Cohen (1988). Thus both male and female students share more with their same-sex friends than with their different-sex friends. Additionally, there is indication that this difference is greater in the case of female students. In this regard, the two different measures of self-disclosure yield quite similar results.

Overall, it should be mentioned that self-disclosure was lower in this study than in the predecessor study. Schug *et al.* – who do not differ between same-sex and different-sex friend – report an average of 3.46 ( $SD = .86$ ) on the self-disclosure scale for the total sample (2010:1475). Disclosure towards same-sex friend in this study was 3.35 ( $SD = 1.06$ ) and to different-sex friend it was 2.77 ( $SD = 1.06$ ), without separating by gender.

## 6.2. Gender differences in relational mobility

Relational mobility was measured by use of the Relational Mobility Scale introduced by Yuki *et al.* (2007) and utilized in the predecessor study by Schug *et al.* (2010). For this variable, normality can be assumed (based on the Kolmogorov-Smirnov as well as the Shapiro-Wilk procedures) when separating the sample into male and female respondents. Thus, if it is also viewed as a continuous variable like e.g. Boone and Boone (2012) propose, conducting a Student's *t*-test to compare the two groups is justified.

Both *t*- and *U*-test produce no significant gender effect when it comes to relational mobility and indeed, within the sparse literature on relational mobility, there is no indication that it should differ for men and women in the same physical environment. Especially since the concept asks for the relational mobility perceived in one's social environment, differences by gender should not be expected unless in (micro-)societies, where social environment itself differs strongly by gender. Perhaps unsurprisingly this does not seem to apply to students at a mixed university campus in proximity to Tōkyō.

Nevertheless, *U*-tests were also conducted for each of the individual items which are part of the Relational Mobility Scale. Indeed, for 2 of the 12 items included, a significant gender-difference was found. The statement 'They [i.e. respondent's friends and acquaintances] frequently have conversations with new people' found significantly stronger support among female students ( $u = 23612.5, p = .007, r = .124$ ) as opposed to male students. Also the statement 'It is uncommon for them to have conversations with new people' was less strongly supported by female students ( $u = 22735.5, p = .002, r = .139$ ). Although the observed effects are small, there is reason to believe that this is not a mere statistical artifact. These two items constitute one of the complementary pairs within the Relational Mobility scale. Seeing that the positively phrased item was rather supported while the negatively phrased item found less support among female students (as opposed to men) the results appear trustworthy. This suggests that female respondents consider it more likely than male respondents for the acquaintances to talk to and meet new people. However, since this applies only to 1 out of 6 corresponding pairs of items and the Relational Mobility Scale will mainly be considered as the index it was intended to be, this matter will not be of further relevance. Overall, relational mobility was slightly higher than in the predecessor study – Schug *et al.* (ibid.) report mean scores of 3.65 (SD = .58) as opposed to 3.93 (SD = .57) in this study. No statement can be made as to the significance of these differences between studies.

### 6.3. Subjective closeness, gender, and type of friendship

The measure of subjective closeness in this study is composed of two individual items which asked the respondents a) to compare the closeness in the relationship to male/female friend to their own other relationships and b) to compare it to other people's relationships they know of but which are not their own. For these variables, normality could not be assumed, so non-parametric tests were conducted. Descriptive statistics are reported in chapter 5.5, table 10.

*U*-tests indicate that female students consider to be closer to their same-sex friend than men when comparing this friendship to their other relationships. Yet this effect does not even reach the necessary 0.1 threshold proposed by Cohen (1988) to be called a small effect ( $u = 23931.0$ ,  $p = .049$ ,  $r = .091$ ) and can thus be considered negligible.

Conversely, in the case of different-sex friendships, male students considered to be closer to their friends than did women – again this is only the case in comparison to their other relationships ( $u = 17715.0$ ,  $p = .040$ ,  $r = .102$ ). When using relationships they knew of (but which are not their own) for comparison, no significant gender differences in assessment of closeness were found.

Wilcoxon signed-rank tests were carried out to see whether the target of comparison had any impact on the assessment of subjective closeness. Whether respondents compared the closeness in their friendship with their own relationships or other people's relationships made a significant difference: Male students' assessment of closeness in their same-sex friendship was significantly higher when only comparing to their own relationships as opposed to other people's relationships they know ( $z = -6.877$ ,  $p < .001$ ,  $r = .292$ ). The same is true for female respondents' assessment of closeness, where the consideration of other people's relationships also had a detrimental effect on the assessment of closeness in their friendship ( $z = -8.738$ ,  $p < .001$ ,  $r = .448$ ).

When looking at different-sex friendships, the picture is mostly the same. The closeness felt within the friendship was lower when considering other people's friendships (as opposed to just considering one's own relationships) both in the case of male students ( $z = -6.578$ ,  $p < .001$ ,  $r = .300$ ) and in the case of female students ( $z = -4.912$ ,  $p < .001$ ,  $r = .270$ ).

These findings are consistent because respondents were asked to report in regard to their closest friends. Comparison to their own friendships should thus produce high scores of subjective closeness, because naturally their closest friend is closer to them than their own other friends. When looking at other people's friendships however, those other people's most intimate (i.e. closest) relationships are also included, which means that the relatively lower assessment of the respondents' friendship which this comparison produces is only logical.

However, it is interesting to note that in the case of women's same sex-friendships this effect ( $r = .448$ ) almost reaches the threshold to be considered a strong effect (while the other three effect sizes are quite balanced at  $r = .270$  to  $r = .300$  and thus considered 'medium').

Using the combined measure of Subjective Closeness Index as proposed by Berscheid *et al.* (1989), we find no significant gender difference in the case of same-sex friendships, and only a negligible one in the case of different-sex friendships ( $u = 17529.0$ ,  $p = .050$ ,  $r = .097$ ). However, overall, both male and female students consider their most intimate same-sex friendship to be significantly closer than their most intimate different-sex friendship (male:  $z = 9.280$ ,  $p < .001$ ,  $r = .424$ ; female:  $z = -8.344$ ,  $p < .001$ ,  $r = .462$ ), with quite high medium effect sizes (based on Wilcoxon tests).

From these results it is possible to infer the following: Firstly, female students seem to assess the closeness to their closest same-sex friend more positively than male students when comparing to their (own) other relationships. Yet male students seem to feel closer to their closest different-sex friend. Secondly, we find an indication that female students consider other people's friendships to be considerably closer than their own same-sex friendships. Lastly, students clearly feel to be closer to their same-sex friends than their different-sex friends, with hardly any to no gender differences.

#### **6.4. Gender difference in other main variables**

*Motivation to engage in self-disclosure.* Mann-Whitney  $U$ -tests produced no gender-differences in motivation to engage in self-disclosure (for descriptive statistics, see chapter 5.5).

*Trust in the durability/stability of the friendship.* As for trust in friendship-stability,  $U$ -tests revealed no significant effect of respondents' gender either. Type of friendships, meaning whether the respondent is considering a same-sex or a different-sex friendship, however, did make a significant difference. Wilcoxon tests showed that male students ( $z = -10.483$ ,  $p < .001$ ,  $r = .477$ ) as well as their female colleagues ( $z = -8.766$ ,  $p < .001$ ,  $r = .480$ ) clearly displayed higher confidence in a stable friendship when talking about same-sex friends (as opposed to different-sex friends), with high moderate effect sizes of almost .5.

This indicates that motivation to engage in self-disclosure as well as trust in the durability of the friendship are not connected to respondents' gender. In later multivariate analysis it can thus be assumed that any possible gender-differences in the effect of relational mobility on self-disclosure will not be caused by different manifestations of these variables.

*SES.* No gender differences in socio-economic status were found. However, the difficulty of this variable has already been discussed.

These results show that despite overall self-disclosure towards same-sex and different-sex friend, there are hardly any gender-differences to be found in the remaining main variables. In a next step, correlation analysis will be employed to see how these variables interact.

## 6.5. Intercorrelations

In this subchapter, intercorrelations of the above main variables will be presented. At this point it should be mentioned that nowhere in the predecessor study is there a reference as to what type of correlation analysis was used. Also, intercorrelations were only reported for the whole sample and not separately by gender. In this thesis, non-parametric correlation after Spearman is conducted. Results will be reported largely by type of friendship (same-sex or different-sex) as well as respondent's gender.

### 6.5.1. Same-sex friendships

Table 16 shows intercorrelations between the main variables regarding same-sex friendships, without separating by gender. Cases included in this table range from  $n = 454$  to  $n = 474$  for the first six variables. However, when SES is included,  $n$  ranges only from 140 to 143.

Table 16: Intercorrelations in the case of same-sex friendships. Total sample

N=454 to 474 (SES: 140 to 143)		1	2	3	4	5	6	7
Self-disclosure scale (5-items)	1	---	.649***	0.049	.418***	.412***	.333***	.148
Self-Disclosure Index (10 items)	2	.649***	---	0.041	.401***	.326***	.312***	.192*
Relational Mobility Scale	3	.049	.041	---	.001	.025	.013	.028
Subjective Closeness Index	4	.418***	.401***	.001	---	.595***	.297***	.185*
Trust friendship stability	5	.412***	.326***	.025	.595***	---	.254***	.019
Disclosure-motivation	6	.333***	.312***	.013	.297***	.254***	---	.041
SES (3 levels)	7	0.148	.192*	.028	.185*	.019	.041	---

Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

The results show that there is a strong association between the two measures of self-disclosure ( $r = .649$ ,  $p < .001$ ) when it comes to close same-sex friends. It is also apparent that subjective closeness is moderately associated with self-disclosure as measured by both indices ( $r = .418$ ,  $p < .001$  and  $r = .401$ ,  $p < .001$  respectively). Trust in friendship-stability is moderately associated with self-disclosure as measured by the 5-item self-disclosure scale ( $r = .412$ ,  $p < .001$ ) and weakly correlates with the 10-item Self-Disclosure Index ( $r = .326$ ,  $p < .001$ ). Motivation to engage in self-disclosure is weakly correlated with both measures ( $r = .333$ ,  $p < .001$  and  $r = .312$ ,  $p < .001$  respectively). All of the mentioned associations are of positive

nature, meaning that greater subjective closeness, greater trust in the durability of the friendship, as well as stronger motivation to engage in self-disclosure all seem to be positively related to self-disclosure. The results also imply that trust in friendship-stability and subjective closeness are two concepts that are strongly related ( $r = .595, p < .001$ ).

The applied measure of socio-economic-status correlates very weakly with the 10-item measure of self-disclosure ( $r = .192, p = .022$ ) and with subjective closeness to same-sex friend ( $r = .185, p = .027$ ), insofar as higher SES is associated with greater closeness and greater self-disclosure. As it was only theorized that SES might have an influence on one's relational mobility and possibly on self-disclosure (see Consedine *et al.* 2007), this finding on the connection between subjective closeness and SES is rather surprising. Relational mobility is not significantly associated with any of the other variables in this correlation analysis.

Table 17: Intercorrelations in the case of same-sex friendships. Male students

N= 272 to 280 (SES: 98 to 100)		1	2	3	4	5	6	7
Self-disclosure scale (5-items)	1	---	.676***	-.007	.431***	.415***	.337***	.187
Self-Disclosure Index (10 items)	2	.676***	---	.012	.438***	.360***	.311***	.273**
Relational Mobility Scale	3	-.007	.012	---	.018	.051	.007	.017
Subjective Closeness Index	4	.431***	.438***	.018	---	.626***	.301***	.277**
Trust friendship stability	5	.415***	.360***	.051	.626***	---	.242***	.093
Disclosure-motivation	6	.337***	.311***	.007	.301***	.242***	---	.096
SES (3 levels)	7	.187	.273**	.017	.277**	.093	.096	---

Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

Table 18: Intercorrelations in the case of same-sex friendships. Female students

N=181 to 192 (SES: 42 to 43)		1	2	3	4	5	6	7
Self-disclosure scale (5-items)	1	---	.615***	0.129	.411***	.421***	.327***	0.074
Self-Disclosure Index (10 items)	2	.615***	---	0.095	.347***	.278***	.302***	-0.029
Relational Mobility Scale	3	.129	.095	---	-.045	-.034	.010	-.015
Subjective Closeness Index	4	.411***	.347***	-.045	---	.546***	.283***	-.059
Trust friendship stability	5	.421***	.278***	-.034	.546***	---	.265***	-.154
Disclosure-motivation	6	.327***	.302***	.010	.283***	.265***	---	-.137
SES (3 levels)	7	.074	-.029	-.015	-.059	-.154	-.137	---

Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

*Differences by gender.* Tables 17 and 18 report correlation coefficients for the same variables after separating by gender. These tables will not be discussed in detail. It is pointed out that all association effects remain significant for both male and female students. The only exception is the variable expressing socio-economic status: The two associations reported above are rendered non-significant when looking at the female sample (possibly due to the much smaller



number of cases included) and gain in strength in the case of male students ( $r = .273, p = .006$  and  $r = .277, p = .005$ ).

Fisher's  $z$  was calculated to test whether the differences in the correlation coefficients were statistically significant – but none of the differences by gender revealed significant results. Correlation between relational mobility and the two measures of self-disclosure or other variables remain non-significant.

### 6.5.2. Different-sex friendships

In the case of close different-sex friendships, overall, similar results are found. Intercorrelations of the main variables for the whole sample are reported in table 19. Here too, the different measures of self-disclosure are strongly correlated ( $r = .653, p < .001$ ) Subjective closeness, trust in durability of the friendship, as well as disclosure-motivation in order to strengthen a friendship are significantly and positively associated with self-disclosure. The strong connection between subjective closeness and trust in friendship stability is replicated in the case of different-sex friendships.

None of the correlations including relational mobility produce significant results. Also, the associations including socio-economic status found for same-sex friendships are not significant in the case of different-sex friendships.

Table 19: Intercorrelations in the case of different-sex friendships. Total sample

N=392 to 463 (SES: 126 to 143)		1	2	3	4	5	6	7
Self-disclosure scale (5-items)	1	---	.653***	.013	.418***	.374***	.209***	.026
Self-Disclosure Index (10 items)	2	.653***	---	-.012	.547***	.482***	.239***	-.030
Relational Mobility Scale	3	.013	-.012	---	.015	.022	.013	.028
Subjective Closeness Index	4	.418***	.547***	.015	---	.662***	.194***	.022
Trust friendship stability	5	.374***	.482***	.022	.662***	---	.136**	-.052
Disclosure-motivation	6	.209***	.239***	.013	.194***	.136**	---	.041
SES (3 levels)	7	.026	-.030	.028	.022	-.052	.041	---

Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

Tables 20 and 21 show correlation coefficients after separating by respondents' gender. In case of men, all associations reported above remain significant. In the case of women, however, the associations between motivation to engage in self-disclosure and a) subjective closeness and b) trust in friendship-durability are rendered non-significant. Otherwise, no differences between the coefficients for male and female students are significant, as tests for Fischer's  $z$  reveal.

Table 20: Intercorrelations in the case of different-sex friendships. Male students

N=234 to 275 (SES: 90 to 100)		1	2	3	4	5	6	7
Self-disclosure scale (5-items)	1	---	.603***	-.002	.426***	.343***	.177**	.003
Self-Disclosure Index (10 items)	2	.603***	---	.007	.553***	.450***	.288***	-.058
Relational Mobility Scale	3	-.002	.007	---	.056	.049	.007	.017
Subjective Closeness Index	4	.426***	.553***	.056	---	.631***	.263***	-.026
Trust friendship stability	5	.343***	.450***	.049	.631***	---	.175**	-.073
Disclosure-motivation	6	.177**	.288***	.007	.263***	.175**	---	.096
SES (3 levels)	7	.003	-.058	.017	-.026	-.073	.096	---

Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

Table 21: Intercorrelations in the case of different-sex friendships. Female students

N=158 to 186 (SES: 36 to 43)		1	2	3	4	5	6	7
Self-disclosure scale (5-items)	1	---	.701***	.052	.387***	.416***	.245**	.112
Self-Disclosure Index (10 items)	2	.701***	---	-.013	.497***	.521***	.158*	.059
Relational Mobility Scale	3	.052	-.013	---	-.029	-.009	.010	-.015
Subjective Closeness Index	4	.387***	.497***	-.029	---	.687***	.083	.124
Trust friendship stability	5	.416***	.521***	-.009	.687***	---	.060	.010
Disclosure-motivation	6	.245**	.158*	.010	.083	.060	---	-.137
SES (3 levels)	7	.112	.059	-.015	.124	.010	-.137	---

Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

### 6.5.3. Differences by disclosure target

It was also tested whether association effects differed significantly from each other by disclosure target i.e. type of friendship. Without separating by gender, it was found that most coefficients do not differ significantly. However, the association between motivation to engage in self-disclosure and the 5-item measure of self-disclosure was significantly stronger in same-sex friendships ( $z = 1.97$ ,  $p = .048$ ). Conversely, correlation between the 10-item measure of self-disclosure and subjective closeness was significantly higher in different-sex friendships ( $z = -2.77$ ,  $p = .006$ ). Similarly, trust in friendship-durability was also significantly more strongly associated with this measure of self-disclosure in different-sex friendships ( $z = -2.98$ ,  $p = .003$ ).

When separating by respondents' gender and disclosure target, these differences in strength of correlation are almost all non-significant. However, in the case of female friendships, the association between trust in friendship-durability and subjective closeness was significantly stronger in different-sex friendships ( $z = -2.14$ ,  $p = .032$ ).

#### 6.5.4. Personal relational mobility

As mentioned in chapter 4.2, Schug *et al.* (2010) also included a measure of ‘personal relational mobility’ in their study. They found that this measure was associated with both self-disclosure to a close friend ( $r = .22, p < .005$ ), as well as motivation to engage in self-disclosure ( $r = .27, p < .005$ ), very much in line with their findings in regard to the Relational Mobility Scale (2010:1475).

A similar measure of personal self-disclosure in the present study was also used to conduct correlation analysis with the main variables. Correlation coefficients are reported in table 22 – for the total sample as well as separated by gender. For those variables where it is necessary to differentiate between same-sex and different-sex friendships, both are reported.

Table 22: Correlations between personal relational mobility and the main variables

	Male		Female		Total sample	
	N = 271		N = 183		N = 453	
Variables	Same-sex friendship	Different-sex friendship	Same-sex friendship	Different-sex friendship	Same-sex friendship	Different-sex friendship
Self-disclosure scale (5-items)	.142*	0.101	0.064	.191*	.108*	.149**
Self-Disclosure Index (10 items)	.204**	.170 **	0.081	0.081	.158**	.150**
Relational Mobility Scale	0.072		0.137		.096*	
Subjective Closeness Index	.170**	.157*	0.058	0.077	.128**	.127 *
Trust friendship stability	.176**	0.104	0.067	-0.023	.131**	0.057
Disclosure-motivation	.124*		.199**		.156 **	
SES (3 levels)	0.032		-0.115		-0.014	

Note: \*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ ;

These results suggest that this personal measure of relational mobility is in fact much more strongly related to self-disclosure and other aspects than the score on the Relational Mobility Scale which takes into account one’s environment. The amount of new friends is positively associated with both measures of self-disclosure in same- as well as different-sex friendships without separating by gender. Furthermore, motivation to engage in self-disclosure is positively associated with this measure of relational mobility even when separating by gender. None of these effects were found when using the Relational Mobility Scale. In fact, the association between this measure of relational mobility and the Relational Mobility Scale is negligible for the total sample ( $r = .096, p = .044$ ) and is rendered insignificant when separating by gender, which implies that indeed different concepts are measured here.

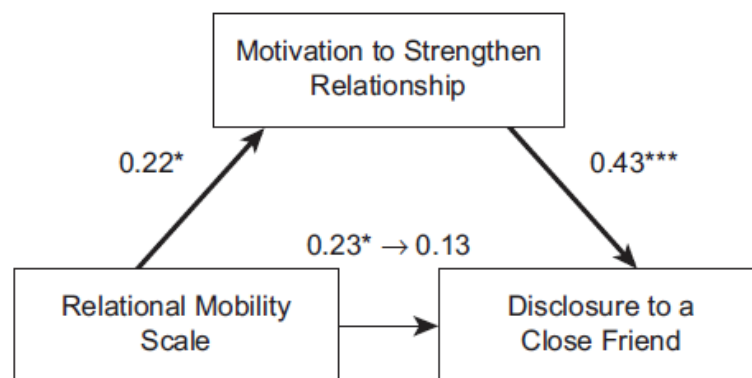
In part this is probably due to the personal nature of this second measure. This matter will be taken up again in the discussion (chapter 7). In order to replicate the predecessor study the

analysis presented in the remainder of the thesis will continue to utilize the Relational Mobility Scale. It will be investigated whether a path analysis as undertaken by Schug *et al.* (2010) can uncover an effect (or mediated effect) of relational mobility on self-disclosure that correlation analysis alone did not produce. First, however, the mediation effect found in the predecessor study will be addressed.

## 6.6. Does motivation to disclose mediate the association between relational mobility and self-disclosure?

Conducting a series of regressions, Schug *et al.* (2010) – with a sample of 94 Japanese students – find that the respondents’ score on the Relational Mobility Scale has a significant effect on disclosure to a close friend ( $\beta = .23, p < .05$ ) and also on disclosure-motivation, here called ‘motivation to strengthen relationship’ ( $\beta = .22, p < .05$ )<sup>3</sup>. This motivation to engage in self-disclosure in order to strengthen a relationship also had a positive effect on self-disclosure ( $\beta = .43, p < .001$ ) in the predecessor study. When both motivation and relational mobility were used as independent variables, the effect of relational mobility on self-disclosure disappeared (Sobel’s  $z = 1.92, p = .054$ ) (Schug *et al.* 2010: 1475). They thus argue for disclosure-motivation to be a mediator of the positive effect that relational mobility has on self-disclosure.

Figure 5: Mediation effect found in the predecessor study



**Fig. 2.** The mediating effect of motivation to engage in self-disclosure to strengthen relationships on the relationship between the Relational Mobility Scale and disclosure to a close friend in Study 2. Standardized regression coefficients are presented. Bold arrows represent significant paths in the final step. On the bottom path, the number on the left represents the standardized regression coefficient before including the mediating variable, whereas the number on the right indicates the standardized regression coefficient in the final model. Asterisks indicate the significance of the coefficients (\* $p < .05$ , \*\*\* $p < .001$ ).

Source: Schug *et al.* (2010:1474)

<sup>3</sup> Standardized regression coefficients  $\beta$  are reported.

The mediation analysis which Schug *et al.* (2010) conducted (shown in figure 5), together with their correlational findings, yields their most important finding regarding the connection between relational mobility and Japanese students' self-disclosure to their friends. They conclude, that "[e]ven within a single culture, individuals in social environments higher in relational mobility reported engaging in higher levels of self-disclosure, and did so in order to strengthen their interpersonal relationships" (2010:1475).

Yet correlation analysis in the present study would indicate that, contradictory to Schug *et al.* (2010), relational mobility and self-disclosure are not connected. Nor is there any support for a connection between relational mobility and motivation to engage in self-disclosure. However, motivation to engage in disclosure is clearly associated with self-disclosure towards close friends.

In order to replicate their findings, a similar analysis of mediation effect is conducted. Strictly speaking, the variables used in this model are not continuous or only quasi-continuous. However, as they can be called Likert-scale items, Boone and Boone (2012) suggest that they can be treated as continuous. Even then, they do not fulfill the normality assumption necessary to conduct such a statistical procedure in the case of the present data. The predecessor study does not report whether normality assumption or other assumptions (such as homoscedasticity or lack of multicollinearity) are met by the used variables, but due to the similar way the items were surveyed, it is highly unlikely that they are. Nevertheless, in order to conduct a statistical procedure comparable to the predecessor study, these assumptions will be violated in the following analysis. This is also true for the path analysis which follows this part. It must be explicitly mentioned that this reduces the robustness of the findings and sheds some doubt on the outcome of the procedure.

In the following, the same path of mediation will be tested based on the data collected for the present thesis. However, as opposed to the predecessor study, results will be presented after separating by gender. Schug *et al.* (2010) also did not differ between same-sex and different-sex friendships, which is a considerable contribution of the present thesis. Throughout the analysis, standardized regression coefficients will be reported. The analysis begins with the 5-item measure of self-disclosure, the self-disclosure scale which was used in the predecessor study.

For same-sex friendships and when looking at the total sample, only the effect of motivation to engage in self-disclosure on self-disclosure was significant ( $\beta = .331$ ,  $p < .001$ ). No significant effect of relational mobility on this motivation or directly on self-disclosure to close same-sex friend was found. In a model where both variables are included as explanatory

variables for self-disclosure, the effect of disclosure-motivation remained significant ( $\beta = .315$ ,  $p < .001$ ) and the effect of relational mobility remained non-significant. In light of these findings it is not appropriate to speak of mediation (Baron and Kenny 1986).

After separating the sample by gender, the results become slightly more diverse but still do not speak for the presence of a mediation effect. In the case of male students' same-sex friendships, results are similar. Only the effect of motivation to engage in self-disclosure on disclosure to close same-sex friend is significant ( $\beta = .361$ ,  $p < .001$ ). In the case of female students, however, a significant effect of relational mobility on self-disclosure is found ( $\beta = .174$ ,  $p = .018$ ) in addition to the effect of disclosure-motivation ( $\beta = .297$ ,  $p < .001$ ). Also, when both variables are used in the same model, they remain significant predictors of self-disclosure to close same-sex friend ( $\beta = .162$ ,  $p = .021$  and  $\beta = .290$ ,  $p < .001$  respectively). However, relational mobility does not have a significant effect on motivation to engage in self-disclosure. Therefore, no indication of a mediation effect is observed.

Both relational mobility and motivation to engage in self-disclosure are not target-specific, meaning that they were not surveyed in respect to a specific friend, but only in respect to the respondent him-/herself. Therefore, the non-significant finding for an association between these variables must necessarily remain the same when looking at different-sex friendships – for the total sample and also when the data is split by gender (since this has already been done when including same-sex friendships into the analysis). The same is true when using a different measure of self-disclosure, because this does not affect the variables in question. Thus – even without looking at different-sex friendships in more detail and without considering the 10-item self-disclosure index – it can already be concluded that this analysis produces no support for a possible mediation effect, because this one association can already be ruled out. No mediation effect of disclosure-motivation on the influence of relational mobility on self-disclosure to close friends, such as reported by Schug *et al.* (2010), was found.

Nevertheless, some direct effects of relational mobility on self-disclosure have been discovered, and these differ depending on respondent's gender. The significant finding for the effect of relational mobility on self-disclosure in the case of female students has to be tested also in regard to the 10-item measure of disclosure. However, since these associations are part of the following path analysis in any case, it is not necessary to further consider the matter in the context of mediation.

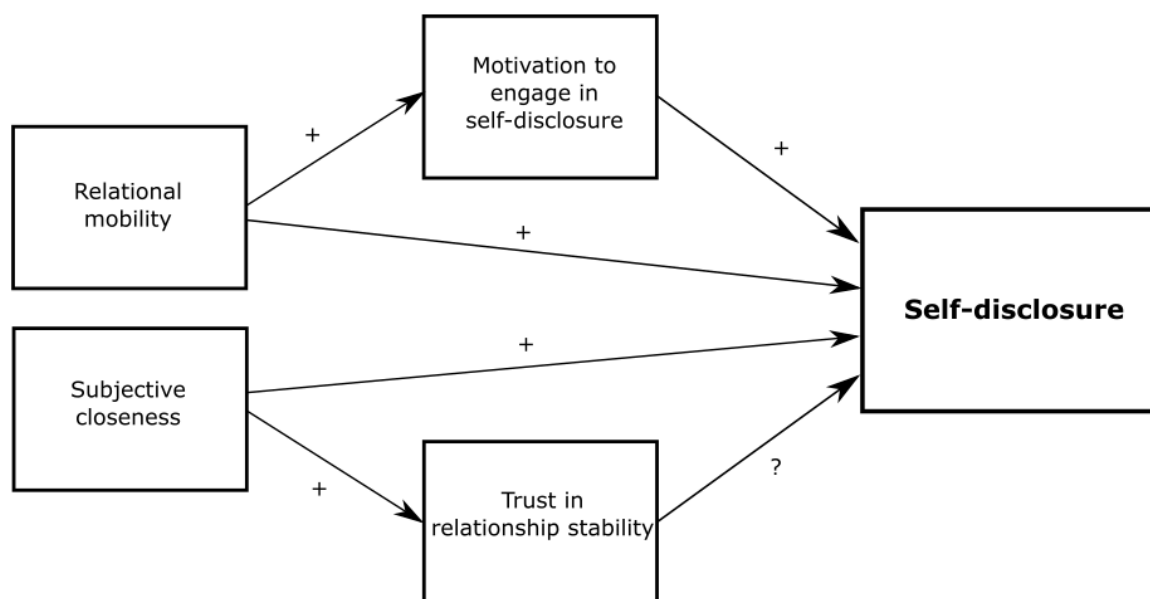
## 6.7. Path analysis

The above mediation analysis included two explanatory variables for self-disclosure: relational mobility and disclosure-motivation. The paths suggested in the predecessor study can be seen in figure 5. Yet the predecessor study also included another main variable that was found to have a strong association with self-disclosure: subjective closeness. Together with the variable expressing trust in relationship durability, which is an addition to the original research design, a similar connection between these factors and self-disclosure can be assumed.

Figure 6 shows the proposed model which will serve as the basis for the path analysis explaining self-disclosure. The path shown in figure 5 is directly adapted and is represented in the upper half of the model, even though significant effects of relational mobility on disclosure-motivation can be ruled out at this point (see chapter 6.6). Relational mobility could, however, still affect the associations between the self-disclosure and the other main variables. The lower half of the model consists of subjective closeness and trust in relationship stability. Based on the above findings and the literature reviewed in chapter 2 (e.g. Brunell 2007, Collins and Miller 1994, Schug *et al.* 2010), it is assumed that subjective closeness has a positive effect on self-disclosure, as well as on trust in relationship stability.

As for the effect of trust in relationship stability on self-disclosure, some considerations must be made. Correlation analysis clearly indicates a positive relationship. However, as discussed in chapter 3, Schug *et al.* (2010) make the assumptions that environments high in relational mobility increase self-disclosure exactly because these environments produce fragility in relationships. Following this logic, one would have to expect a negative effect of friendship stability on self-disclosure since there is less instability creating the need for compensation or “relationship-maintenance” (2010:1472) through disclosure. At the very least it is possible that one effect cancels out the other. Therefore, no assumption will be made regarding the direction of the effect that assessment of relationship stability has on self-disclosure (expressed by the question mark in figure 6; “+” stands for an expected positive effect).

Figure 6: Proposed model for path analysis



Therefore, it is expected that relational mobility, motivation to disclose, and subjective closeness will all have a positive effect on self-disclosure. The direction of effect in case of trust in friendship stability is not defined. Disclosure-motivation in this model is hypothesized to be influenced positively by relational mobility. Even though mediation analysis has already shown that this is not the case, the model adapts the assumptions of the predecessor study in this regard for reasons of completeness. This is also true for the assumed direct effect of relational mobility on self-disclosure per se. In regard to this effect, consideration of an alternative disclosure-measure, separation by gender, and differences in type of friendship (all of which were not necessary to arrive at the conclusion that no mediation effect can be found) might still produce significant results. Finally, trust in friendship-stability is expected to be positively influenced by subjective closeness. Paths along the proposed model will be calculated separately by disclosure target (close same-sex friend and close different-sex friend) and gender of the respondent. Furthermore, after the measure used in the predecessor study, the additional measure of self-disclosure by Miller *et al.* (1983) will be considered as well.

#### 6.7.1. Why socio-economic status should be included in the model but isn't

As relational mobility varies across social environments it is possible that it is influenced by factors such as income and level of education. Yuki *et al.* do not discuss this as a potential connection, but since they argue that “[e]ven within the same society, different kinds of groups, networks, and social contexts affect levels of relational mobility” (2007:2) there is ample ground to consider this possibility when accepting the notion that social contexts and group



formation are not completely unrelated to socio-economic status. Several sociological works have emphasized the role that socio-economic factors play for group and network formation (for a review see McPherson, Smith-Lovin, and Cook 2001:426-427). Furthermore, there is some indication that self-disclosure is connected to socio-economic variables. For example, the already mentioned study by Consedine *et al.* (2007) implies that there might be some connection between self-disclosure and income. Thus, socio-economic status was originally included in the model, with one path leading to relational mobility and one path leading to self-disclosure.

As has been reported above, no significant gender difference was found in regard to socio-economic-status. Without separating by gender of the respondent, group comparisons were conducted using the Mann-Whitney *U*-test in order to determine whether SES has any influence on relational mobility and/or self-disclosure. It has already been explained that the three categories of SES are only referred to as 'low', 'medium', and 'high' relatively to the whole sample. Due to the small number of respondents who completed the questions used to measure SES (roughly 30 %), these groups only consist of 51, 47, and 45 individuals respectively.

No statistically significant inter-group differences in relational mobility were found based on socio-economic status. This underlines the results of the correlation analysis, where the measure of SES (before creating separate SES-categories from high to low) did not show any association with relational mobility.

Correlation results, however, did imply an association between the self-disclosure and SES – at least in the case of same-sex friendships and when using the 10-item measure of self-disclosure. Group comparison reflects this weak association as well. Comparisons between a) low and medium SES-groups and b) medium and high SES-groups yielded no significant differences for any of the four aspects included (self-disclosure to same-sex friend and different-sex friend with both measures). However, comparison between c) low and high SES did produce one statistically significant finding. Again, self-disclosure to same-sex friend as measured by the Self-Disclosure Index was significantly higher among students in the 'high' category of socio-economic-status as opposed to those in the 'low' SES-group ( $u = 818.5$ ,  $p = .022$ ).

Judging from the above, there would be sufficient theoretical and empirical reason to include SES into the proposed model of path analysis. The assumed influence of SES on relational mobility was not supported by the data used in this thesis, but there is a good likelihood of this being due to the socio-economically homogenous sample used. The

theoretical possibility of a connection between socio-economic variables and the extent to which one can move freely between relationships and groups might still be valid.

Unfortunately, regardless of the empirical findings of this study so far, SES had to be excluded due to the small number of respondents for whom SES could be calculated, amounting to less than one third of all respondents. Whenever SES was included in the model, all otherwise highly significant and robust effects on self-disclosure disappeared, which is a strong indication that inclusion of SES increases the likelihood of type II errors.

### 6.7.2. Factors explaining self-disclosure by gender, type of friendship and measure of disclosure

A series of linear and multiple linear regressions was conducted in order to arrive at the path analyses comparing results for male and female students. High values of multicollinearity were ignored due to the nature of a path analysis, where inter-effects among the explanatory variables are actually desired and such conditions can be expected. Standardized regression coefficients are reported, significant paths are reported in boldface. First, close same-sex friendships are considered, with self-disclosure as measured by the self-disclosure scale used in the predecessor study (5-item measure).

Figure 7: Path analysis: Male students' same-sex friendships (5-item measure of self-disclosure)

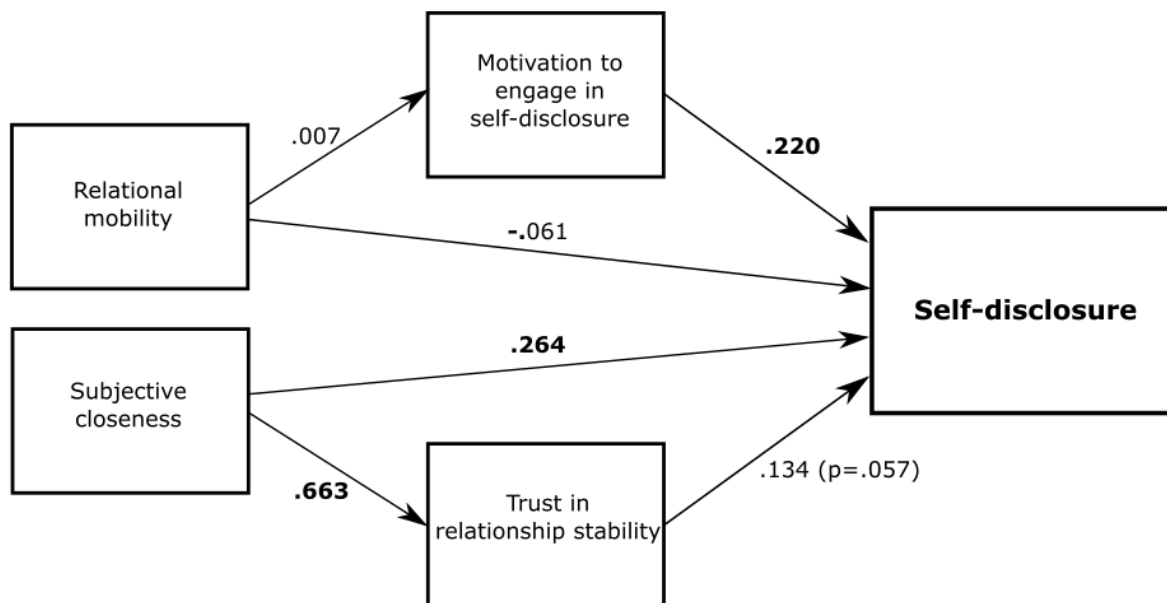


Figure 7 shows standardized regression coefficients in the proposed path analysis model for male students. Significant findings are reported in boldface. The effect of relational mobility is clearly nonsignificant ( $\beta = -.061$ ,  $p = .255$ ). However, subjective closeness to disclosure target

( $\beta = .264, p < .001$ ) and motivation to engage in self-disclosure ( $\beta = .220, p < .001$ ), are highly significant. The effect of trust in the durability of the relationship on self-disclosure only approaches significance ( $\beta = .134, p = .057$ ).

The effect of subjective closeness on trust in the relationship is quite high ( $\beta = .663, p < .001$ ). Even though a reciprocal effect can be expected here, it is this direction which is relevant to the present model. As expected, opposed to Schug *et al.* (2010), no significant effect of relational mobility on motivation to engage in self-disclosure was found ( $\beta = .007, p = .913$ ).

Figure 8: Path analysis: Female students' same-sex friendships (5-item measure of self-disclosure)

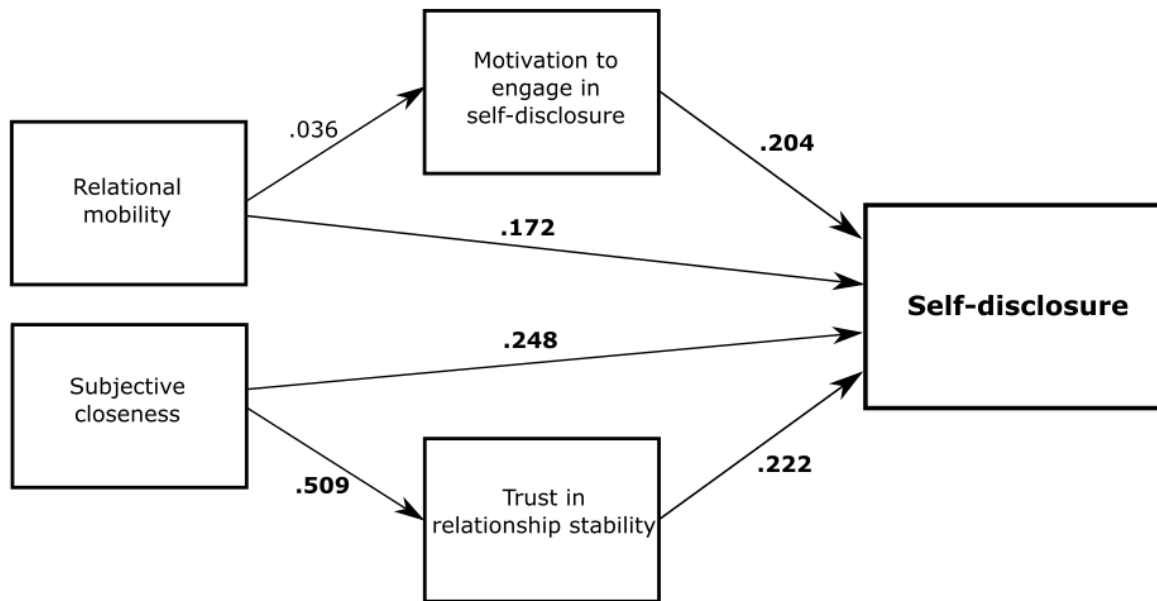
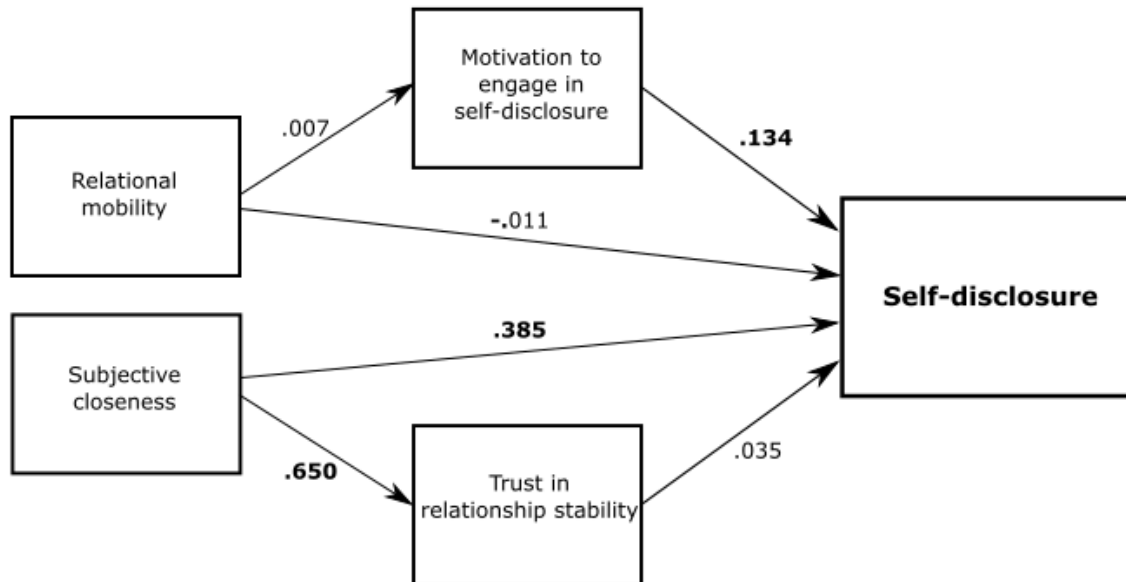


Figure 8 shows interaction effects for female students. In the case of female students, all direct effects of the four main variables on self-disclosure are significant at  $p < .01$ . As might be expected when looking at the results for the male sample, subjective closeness ( $\beta = .248, p = .001$ ) shows the strongest effect on self-disclosure. Trust in the durability of the friendship ( $\beta = .222, p = .003$ ) as well motivation to disclose ( $\beta = .204, p = .002$ ) have significant effects on disclosure as well. The effect of subjective closeness on trust in the relationship with their closest same-sex friend is also significant for female students ( $\beta = .509, p < .001$ ). Remarkably, relational mobility also has a significant positive effect on self-disclosure to same-sex close friend ( $\beta = .172, p = .008$ ). The fact that we find both a positive effect of relational mobility as well as of trust in relationship stability on self-disclosure in female students' same-sex friendships is interesting. It seems to contradict the assumption by Schug *et al.* (2010) that

environments high in relational mobility encourage stronger self-disclosure because of the relative uncertainty it creates. In the following, different-sex friendships will be considered.

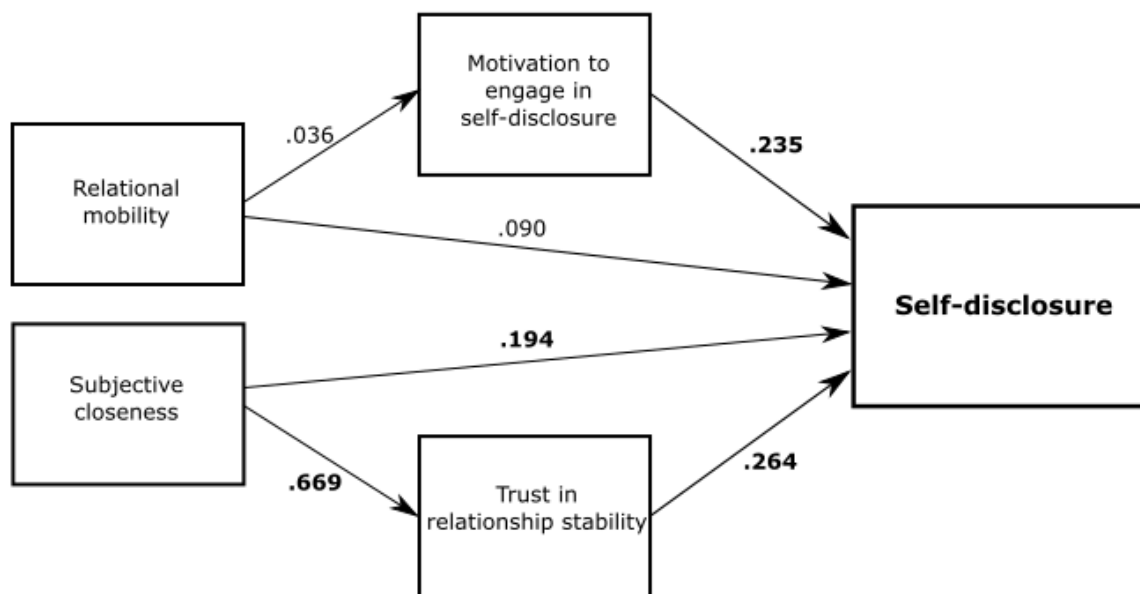
Figure 9: Path analysis: Male students' different-sex friendships (5-item measure of self-disclosure)



In figure 9, standardized regression coefficients are reported for male students' different sex-friendships. Similarly to men's same-sex friendships, three effects are found. Motivation to engage in self-disclosure ( $\beta = .134, p = .029$ ) and subjective closeness ( $\beta = .385, p < .001$ ) have significant positive effects on self-disclosure. Subjective closeness also positively influences the respondents' trust in the durability of their relationship ( $\beta = .650, p < .001$ ). Analogous to the results for men's same-sex friendships, relational mobility does not predict motivation to engage in self-disclosure.

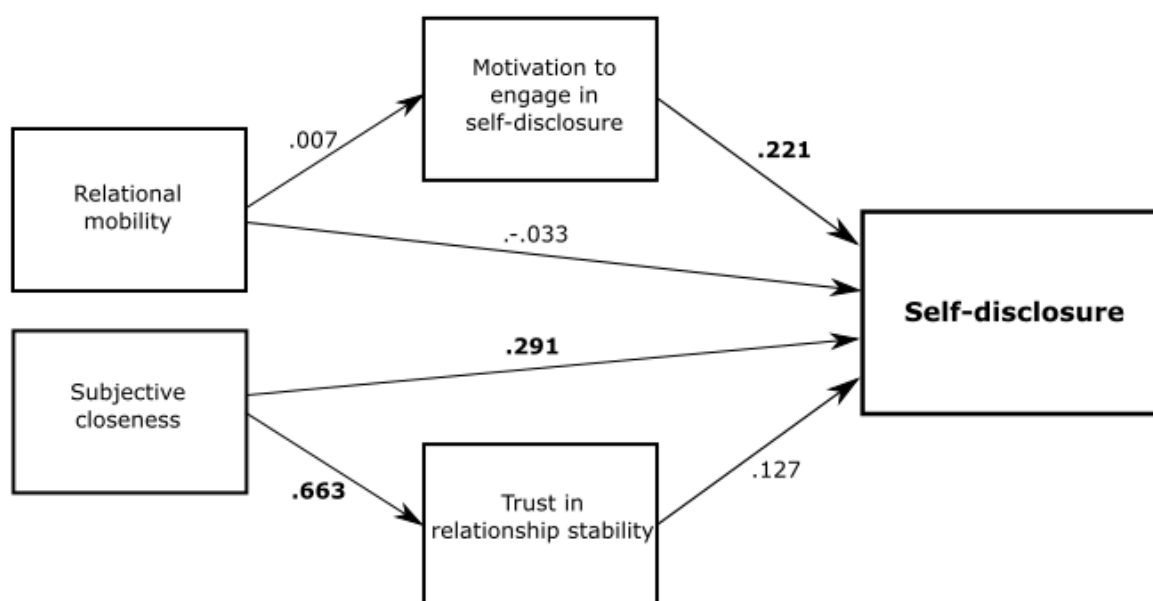
Results for female students' different-sex friendships are reported in figure 10. As opposed to same-sex friendships, where a significant effect of relational mobility on self-disclosure was found, the effect is non-significant in this case (as is the effect of relational mobility on disclosure-motivation). The effects of subjective closeness ( $\beta = .194, p = .041$ ) and motivation to engage in self-disclosure ( $\beta = .235, p = .001$ ) are significant. As opposed to male students' friendships but in accordance with the results for women's same-sex friendships, trust in relationship durability also has a significant and positive effect on disclosure ( $\beta = .264, p = .006$ ). The closeness felt in the relationship highly influences respondents' assessment of relationship stability ( $\beta = .669, p < .001$ ).

Figure 10: Path analysis: Female students' different-sex friendships (5-item measure of self-disclosure)



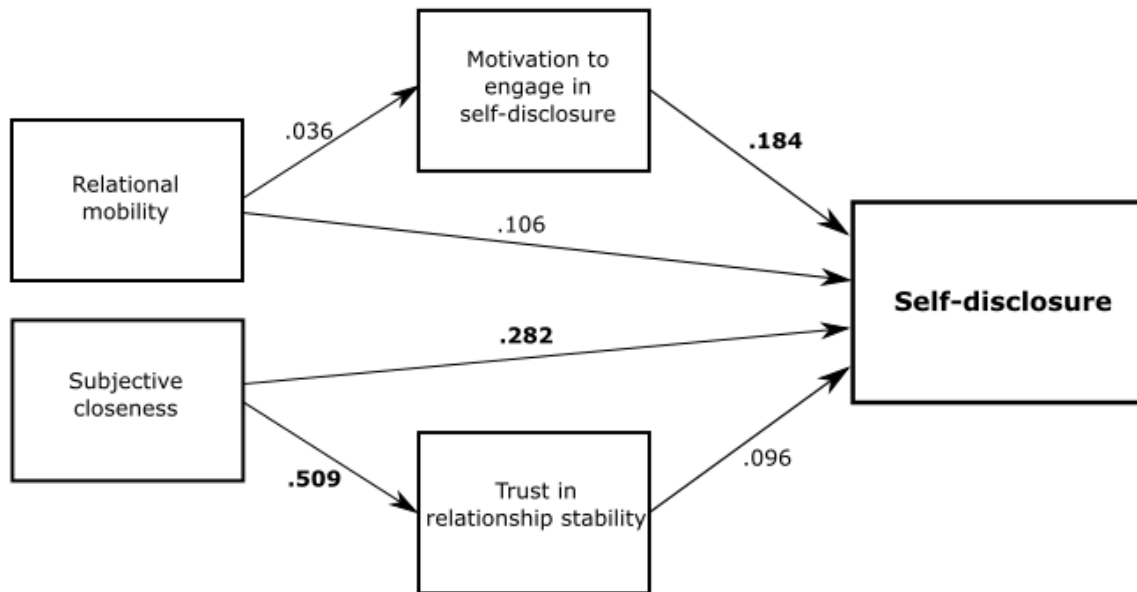
As one of the most important strengths of this thesis, these same path analyses were conducted one more time using the alternative 10-item measure of self-disclosure: the Self-Disclosure Index by Miller *et al.* (1983). For reasons of comprehensibility, only important differences from the findings which are based on the predecessor study's self-disclosure scale will be discussed. Results are reported in figures 11, 12, 13 and 14. The effect of subjective closeness on trust in relationship stability is not dependent on the measure of self-disclosure and is therefore the same as reported in the figures above (for all four analyses).

Figure 11: Path analysis: Male students' same-sex friendships (10-item measure of self-disclosure)



In the case of male students' same-sex friendships (figure 11), no notable changes in strength of standardized coefficients or significance of the associations are found when using the alternative measure of self-disclosure. Analogous to the analysis above, only the effects of motivation to engage in disclosure ( $\beta = .221, p < .001$ ), and subjective closeness ( $\beta = .291, p < .001$ ) on self-disclosure are significant, while relational mobility has no effect.

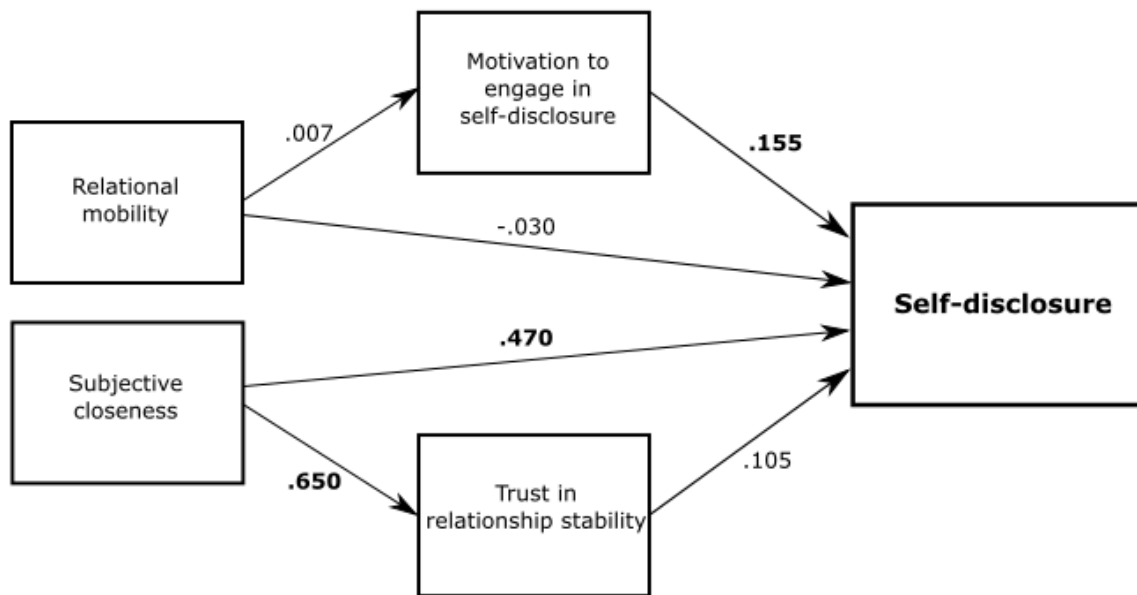
Figure 12: Path analysis: Female students' same-sex friendships (10-item measure of self-disclosure)



In the case of female same-sex friendships (figure 12), however, a particularly important difference appears. When using the 10-item Self-Disclosure Index, the effect of relational mobility found for this group disappears ( $\beta = .106, p = .124$ ). Furthermore, the effect of trust in relationship durability on self-disclosure disappears ( $\beta = .096, p = .231$ ) when applying this measure of self-disclosure. The effects of disclosure motivation ( $\beta = .184, p = .009$ ) and subjective closeness ( $\beta = .282, p = .001$ ) on self-disclosure remain significant.

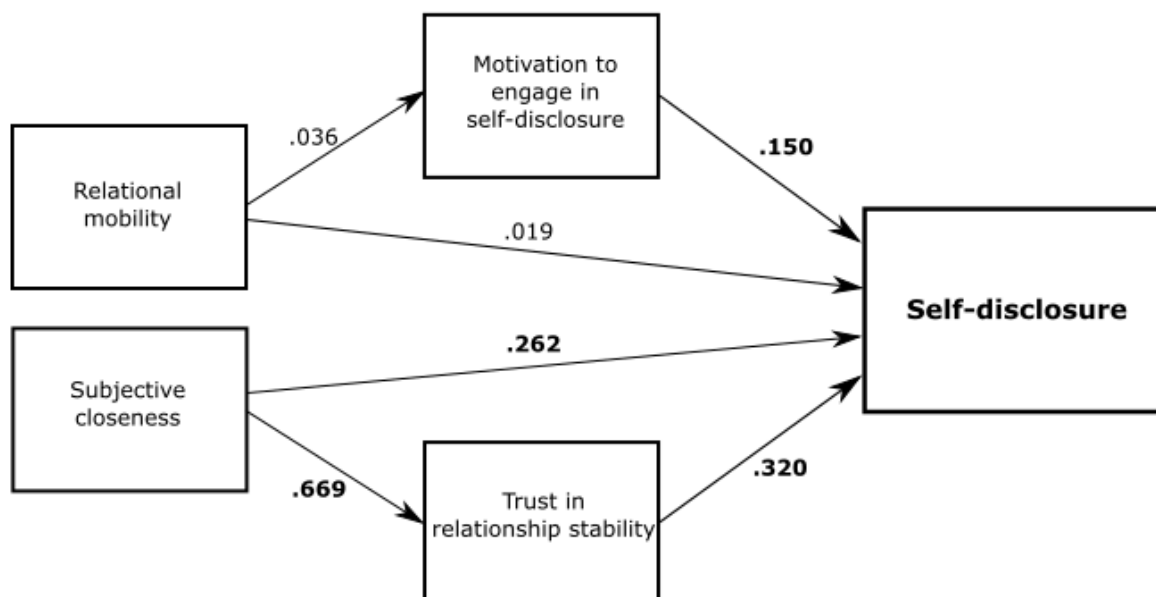
In the case of male students' different-sex friendships (figure 13), no notable differences between measures were found except a stronger association between subjective closeness and this measure of self-disclosure ( $\beta = .470, p < .001$ ). The effect of disclosure motivation on this measure of self-disclosure ( $\beta = .155, p = .005$ ) is comparable to the effect on the self-disclosure scale used in the predecessor study.

Figure 13: Path analysis: Male students' different-sex friendships (10-item measure of self-disclosure)



Likewise, no important differences between the two measures are noted in regard to female-students' different-sex friendships (figure 14). Similar to the model which uses the 5-item measure of self-disclosure, three significant associations are found (besides the association between closeness and assessment of relationship stability): Disclosure motivation ( $\beta = .150, p = .028$ ), subjective closeness ( $\beta = .262, p = .004$ ), and trust in the durability of the friendship ( $\beta = .320, p = .001$ ) all have a significant and positive effect on self-disclosure.

Figure 14: Path analysis: Female students' different-sex friendships (10-item measure of self-disclosure)



Thus, using the Self-Disclosure Index by Miller *et al.* (1983) as a substitute for the self-disclosure measure developed by Schug *et al.* (2010) yields similar results overall. However, a

crucial difference is observed: It is of particular importance that the only significant effect of relational mobility on self-disclosure – found in only one of the four path analyses conducted using the 5-item self-disclosure scale – could not be replicated when using the alternative 10-item measure of self-disclosure. The positive effect of relational mobility on self-disclosure in female students' same-sex friendships as measured by the 5-item self-disclosure scale was not found when using the 10-item Self-Disclosure Index. This result and others presented above will be discussed in the following and last chapter of this thesis.

## **7. Discussion**

This Master's thesis set out to examine a crucial aspect of interpersonal relationships: the sharing of personal information with others. Self-disclosure in Japanese students' close friendships was analyzed based on a questionnaire-survey of students from a Japanese university. The primary research question was whether the degree to which their social environment provides opportunities to establish new relationships and discard old relationships has any influence on the extent to which students share private information with their close friends. In other words it was examined whether relational mobility had any effect on self-disclosure in Japanese students' close friendships.

### **7.1. What was attempted**

In many ways this thesis strived to be a follow-up study of the work by Schug, Yuki, and Maddux (2010). Their socio-ecological approach to a predominantly psychological research subject should be, if anything, emphasized even more strongly here. The two studies shared an interest in societal level variables as an explanation of variances in Japanese students' self-disclosure. Nevertheless, some doubts were voiced by the author about the predecessor study's theoretical conceptualization of the influence which relational mobility has on self-disclosure. Reversing their logic that cultures and social environments high in relational mobility would result in fragility of social commitments which individuals try to counteracted through self-disclosure (2010:1472), one would have to assume that an individual's greater trust in the stability of a relationship would decrease the necessity of self-disclosure. Furthermore, methodological characteristics of the predecessor study, such as the utilization of an own and unestablished measure of self-disclosure or the small sample size, gave reason to conduct a study with more than one measure of self-disclosure that also had greater range. This additionally allowed for examination of possible gender differences. As research on self-



disclosure has traditionally been concerned with gender differences (Dindia and Allen 1992; Enomoto 1987, Jourard 1971a), this is considered to be a notable addition to the study of relational mobility and its connection to self-disclosure.

In the present thesis it was thus attempted to a) reexamine the role which relational mobility plays for self-disclosure among Japanese students and include trust in relationship stability in order to test the theoretical approach by Schug *et al.* (2010) b) add socio-economic status as another explanatory variable and generally emphasize the sociological relevance of self-disclosure, and c) conduct analysis separated by gender.

A questionnaire was drafted and distributed at a Japanese public university (N = 479) in the Kantō-region. In addition to the measures included in the predecessor study, trust in relationship stability was added as an explanatory variable for self-disclosure. Also variables meant to measure socio-economic status were included. With the collaboration of faculty members at the university in question, students were allowed to fill out the questionnaire during class, resulting in a high response rate. Group comparisons, correlation analysis, as well as analysis of mediation effect and a path analysis were conducted.

## **7.2. Evaluation of the main objectives – The role of relational mobility in self-disclosure**

Regarding the connection between relational mobility and self-disclosure – objective ‘a)’ – results of the predecessor study were not supported. In particular, no mediation effect of disclosure motivation on the association between the Relational Mobility Scale and the degree to which students shared personal information was found. Correlation analysis alone did not produce any connection between relational mobility and motivation to engage in self-disclosure. Regression-based mediation analysis, however, did produce one significant finding. (Results between correlation analysis and bivariate regression differ because the analysis was conducted via non-parametric procedures as long as parametric measures did not become necessary to replicate the predecessor study.) Only in the case of female students’ same-sex friendships, and only when using the same measure of disclosure as in the predecessor study, an association between relational mobility and self-disclosure was found. Mediation analysis for different-sex friendships was not conducted because results in regard to relational mobility and disclosure-motivation could not be expected to change. Also the paths of associations left out here were included in the path analysis later conducted.

However, motivation to engage in self-disclosure and especially subjective closeness are clearly associated with self-disclosure towards close friends, as is trust in the durability of the relationship. Students who feel close to their friends and believe that disclosure is a good way

to strengthen a relationship report higher self-disclosure. The same is true for students who display trust in the durability of their relationship. Male and female students who feel closer to their friends are also more likely to trust in the stability of the relationship and to consider self-disclosure a good way to stabilize their friendships (self-disclosure motivation).

The path analyses carried out separately by disclosure target and respondents' gender yielded mostly non-significant findings for the effect of relational mobility on the sharing of personal information. Solely in the case of female students' same-sex friendship a significant effect of relational mobility on disclosure to a close friend is reported. This could be interpreted as partial support of the assumption behind the work of Schug *et al.* (2010) that individuals engage in self-disclosure in order to compensate and counteract the uncertainty produced by the higher relational mobility they perceive in their immediate society. However, respondents were also asked how they assessed the stability of the relationship (likelihood of still being friends ten years later). The effect of this measure on self-disclosure is also significant and positively related to self-disclosure in women's same-sex friendships. This effect is also significant in women's different-sex friendships for both the 5-item and the 10-item measure of disclosure. Meanwhile, no significant effect of relational mobility on women's self-disclosure was found in different-sex friendships or when using the 10-item measure. Therefore, there is support that female students report higher self-disclosure when their trust in the stability of the friendship is higher – and these results are more robust than the effect of the Relational Mobility Scale. The positive effect of relationship stability thus seems to outweigh the positive effect that a perception of fragility of the relationship might have on self-disclosure.

If we really consider relational mobility as causing fragility of relationships, just like Schug *et al.* (2010:1472) propose, then it would seem quite contradictory if both students' trust in relationship stability *and* the measure of relational mobility – included in the same model – would have a positive effect on self-disclosure. The author argues that these findings contradict the assumption that students engage in self-disclosure in response to a 'threat' that the relational mobility in their social environment pose on their friendships.

There might be a completely different explanation for this finding of a positive effect of relational mobility on self-disclosure. Li *et al.* (2015), in three studies among Hong Kong and North American students, found support for the hypothesis that increased perception of relational mobility reduces caution about friends, and it is exactly this caution which might inhibit self-disclosure.

Nevertheless, as opposed to relational mobility, the more psychological variables of trust in relationship stability, motivation to engage in self-disclosure, and especially subjective

closeness are more reliable predictors of self-disclosure. This is in line with innumerable studies on self-disclosure which found that closeness (or intimacy) and disclosure are strongly linked (e.g. Brunell 2007, Collins and Miller 1994, Schug *et al.* 2010).

The greater focus on societal-level variables – objective ‘b)’ was approached via a measure of socio-economic status. Even though great differences in socio-economic status could not be expected on a university campus, some differences in income and parent’s education were hypothesized to have potential influence on the social and relational permeability of given social environments. Unfortunately this attempt did not prove to be fruitful. As discussed in chapters 5.5 and 6.7.1, operationalization was far from optimal which must in part be the reason for the low response rate in regard to these questions. The small number of respondents for whom SES could be calculated overall had a negative effect on the robustness and representativity of the results. The weak but significant association between SES and male students’ self-disclosure is comparable to results found for a North American sample (Consedine *et al.* 2007) but as this effect only appeared for one of the two disclosure-measures the results are equivocal and hard to interpret without further data.

Objective ‘c)’ mainly referred to potential gender-differences in the association between relational mobility and self-disclosure. As already mentioned, significant findings for this association were produced in the case of female friendships only. This gives reason to specifically focus on gender in future analysis.

Hardly any significant gender differences have emerged from analysis of the other main variables. Significant differences between male and female students’ responses are only found when looking at individual items. One example is the significant difference in subjective closeness felt to close friends when the respondents compare this friendship to their other relationships. In this case, women feel closer to their same-sex friends than men – and male students feel closer to their different-sex friends than their female colleagues. Nevertheless, in general respondents feel closer to their same-sex friends, confirming previous literature (Enomoto 1987, Takeuchi 2010). Another exception consists in the significant findings that female students deem their acquaintances slightly more likely to talk to new people than is the case for male students. These differences, however, disappear from the analysis when the eventual indices are considered.

### **7.3. Gender differences in self-disclosure – Unexpected findings and a new riddle**

Despite the possible outcome that relational mobility may differently influence the self-disclosure of men and women, differences in self-disclosure itself were originally not the

primary focus of this thesis. Yet a byproduct of the attempt described above consists in the unexpected findings on differences in disclosure between male and female students.

It appears the mainstream finding that women disclose more overall, and specifically when it comes to certain topics (Enomoto 1987, 1997; Shimakura and Miyamoto 2013), is not supported in this study. There are also studies which would indicate that women's disclosure is only greater in same-sex friendships, but actually lower than men's in cross-sex friendships (e.g. Takeuchi 2010). However, the author is unaware of any study so clearly indicating higher self-disclosure by men as the present thesis does. In the first place, the finding by Takeuchi (2010) is supported also in the present study: Men report significantly higher self-disclosure in different-sex friendships, regardless of measure of self-disclosure. Yet even in close same-sex friendships men's self-disclosure as measured by the Self-Disclosure Index is significantly greater. When using the self-disclosure scale (the 5-item measure) this gender effect only approaches significance, but whenever individual items yield significant differences, it is always men's disclosure which is higher. The results based on the 5-item scale indicate that male and female students' self-disclosure differs by topic. Female students seem to be less likely than male students to share information about their secrets, embarrassing experiences, and failures in same-sex friendships. When it comes to their greatest worries or experiences, the analysis yields no significant differences. Yet in the case of different-sex friendships, women's self-disclosure is lower also for these two topics. Additionally, effect sizes of gender are greater in the case of different-sex friendships. This speaks for a greater barrier inhibiting self-disclosure of female students, especially in different-sex friendships.

Analysis of the ten items which constitute the Self-Disclosure Index produces similar results. For five out of ten items, no gender differences were found, including "Your deepest feelings" and "What you like and dislike about yourself". This alone indicates a lack of support for the traditional finding that women's disclosure is greater in same-sex friendships and especially when talking about emotions (e.g. Enomoto 1987). For those five topics where gender differences were found, including "Things you hold pride in" and "Your close relationships with other people", men's disclosure was always higher. In different-sex friendships, the amount of topics with greater self-disclosure by men grows to nine out of ten topics, now also including "Your deepest feelings". This supports the notion that there must be reasons inhibiting female students' self-disclosure to friends as opposed to the self-disclosure of men – and especially when talking to friends of a different gender.

Due to the fact that all respondents were recruited at one and the same university campus it is not possible to ascertain whether these findings only reflect a local phenomenon or apply

to students elsewhere in Japan. However, even if these results only apply to the population of one Japanese university this could be taken as an example reflecting possible changes taking place in the way young men and women can traditionally be expected to communicate and interact with each other as part of their friendships. It could be a sign of the dissolution of traditional gender-roles in regard to patterns of social interaction.

The traditional gender roles, which served as an explanation for women's greater self-disclosure in the works of Jourard (1971b) and Enomoto (1987, 1997), cannot explain the results found in this study. The silent and unemotional form of manhood and the role of women as talkative and eager to share emotions and information about themselves, which are talked of in these works, are not at all supported by the data in the present thesis. This might have to do with the fact that images of masculinity and femininity have become more diverse in modern day Japan (McLelland and Dasgupta 2005, Iida 2005, Darling-Wolf 2004). There is also research indicating a diminishing in differences between gender roles and characteristics traditionally masculine and feminine (e.g. Sugihara and Katsurada 2002). But why should these developments in regard to gender roles produce a reversed gender effect as opposed to the mainstream literature, instead of just resulting in the levelling of such differences?

In this regard, it has to be noted that many of the studies which find women to disclose more than men, work with self-disclosure questionnaires (such as the ESDQ) that include far more topics than the measures by Schug *et al.* (2010) or Miller *et al.* (1983). Some topics where greater disclosure was found for women, such as outer appearance and topics in the realm of the 'material self' (Enomoto 1987), were not included in either measure of self-disclosure used in this study. The measures of self-disclosure used here are mainly located in the realm of the 'psychological self' (Enomoto 1997) and also belong to the deeper layers of self-disclosure which are associated with close friendships (Niwa and Maruno 2010). Nevertheless the findings are surprising and worthy of consideration.

One study in the context of Japanese students which also utilized the Self-Disclosure Index by Miller *et al.* (1983) is the comparative analysis by Kito (2005) conducted in the U.S. on American and Japanese students. In her discussion of differences in self-disclosure between same-sex and cross-sex friendships, she refers to Dolgin, Meyer, and Schwartz (1991). Based on a sample of Northern American college students and using items from the JSDQ to measure self-disclosure, they found that gender of the disclosure target makes a greater difference for the disclosure of women in close (and less intimate) friendships (1991:325). The explanation which Kito proposes for this finding is taken from Rosenfeld *et al.* (1979), who find support for gender differences in the aims behind the avoidance of self-disclosure. Rosenfeld *et al.* argue

that disclosure-avoidance in men serves the purpose to maintain control over a relationship while women chose to avoid self-disclosure in order to limit the chance of personal hurt and problems which could arise in the relationship as a consequence of having disclosed (1979:72-73). Kito expands this finding with the assumption that “women might perceive that there would be more personal hurt and problems if they were to self-disclose to men than if they were to self-disclose to women” (2005:130). In their meta-analysis of sex-differences in self-disclosure Dindia and Allen made the same assumption over a decade earlier (1992:114). Yet neither they nor Kito offer any reason why this might be so.

Interestingly enough, the finding by Dolgin *et al.* (1991) appears to be supported in the present thesis. Disclosure to same-sex friends and to different-sex friends differed significantly for both men and women and regardless of self-disclosure measure. Comparison of effect-sizes indicates that the difference by disclosure target is greater for women than for men – both when considering the self-disclosure scale and the Self-Disclosure Index. Even though no statement can be made regarding the statistical significance of these differences in effect size, the results indicate that the findings by Dolgin *et al.* might also apply to Japanese students. However, whether this is due to the proposed explanation by Kito or Dindia and Allen cannot be ascertained based on the present data. The fact that male students feel closer to their female friends than vice versa might play a role in this matter. Therefore, while it was found that male students share information about themselves to a higher degree than their female colleagues, it is possible that this is to some degree influenced by the limited amount of topics included in the chosen measures of self-disclosure. Yet there is still considerable evidence that male students’ self-disclosure is higher – especially in different-sex friendships.

It might be that the slow dissolution of traditional gender stereotypes has freed young male students from having to appear “objective, striving, unsentimental, and emotionally unexpressive” (Jourard 1971a:35) in social interactions. As Sugihara and Katsurada state, “the findings in gender role studies conducted 10 or 15 years ago may not be relevant or applicable to the present day” (1999:637). The results would also imply, however, that inhibiting factors of female self-disclosure have not declined or are not declining at the same rate. Rules which govern the interaction between young Japanese men and women might be more stable – especially in the minds of female students.

Derlega *et al.*, instead of speaking of sex roles, considered gendered subcultures (1993:43-50). A subculture has its own norms and sanctions and Derlega *et al.* also consider different goals that men and women might have which motivate them to display varying degrees of self-disclosure (1993:45). Even though they actually try to explain the greater disclosure of women

with this distinction (and the greater disclosure of men in initial encounters), the concept of being socialized into a subculture based on one's own gender offers some room for interpretation. Maybe young Japanese men today are socialized in a fashion where their disclosure is less sanctioned or more encouraged in same-sex and different-sex friendships than was the case at the time of Enomoto's research. And maybe, conversely, women's socialization has not undergone such a great change. For example, there is research indicating that popular media has a stronger effect on the maintenance of traditional gender roles for women (Saito 2007). Possibly, women are still socialized in a way that makes them cautious to disclose themselves to their male friends, in line with Kito's reasoning (2010). As Moroi, Iwasa, and Ueki (2012) have shown, when individuals feel that intimacy is connected to a certain kind of risk or makes vulnerable, this has a detrimental effect on disclosure. It would explain why almost twice as many men considered their closest female friend to be their primary target of disclosure than vice versa (see chapter 5.5). Another indication for different circumstances affecting friendships of men and women is the finding of the present study that the association between trust in the stability of the friendship and subjective closeness was significantly stronger in female students' different-sex friendships as opposed to same-sex friendships, while no such effect was found for men. This would indicate that belief in the longevity of the friendship is a factor that is more important for women's self-disclosure in different-sex friendships. However, this belief was not all too strong for both male and female students. Of course these are all assumptions. As for the true reasons why young Japanese women's self-disclosure in different-sex friendships is lower than men's, further research is needed.

#### **7.4. Limitations and future research**

As for the limitations of the present thesis, several points should be mentioned. While the Relational Mobility Scale did not show any significant associations with other main variables, interestingly, the measure of personal relational mobility based on number of new friends made over the past year, did. Correlation analysis showed that the amount of new friends i.e. the measure of 'personal relational mobility' used in this study provided a more reliable association with self-disclosure and would even qualify for mediation analysis as proposed by Schug *et al.* (2010). Furthermore, there is indication that this measure is quite distinct from what is measured by the Relational Mobility Scale, since the two variables are hardly correlated. As has been hinted at in chapter 6.5.4, this is likely to be due to the more personal nature of this measure. The amount of new friends a person gains during a certain period is likely to reflect their own personality traits, such as extraversion (Harris and Vazire 2016). Since self-disclosure has also

been linked to extraversion, and specifically in the context of college students from an East-Asian region (Li and Chen 2004), this connection seems intuitive. As already stated in chapter 3.2, the first version of the Relational Mobility Scale (Yuki *et al.* 2007) was also phrased to target the individual. However, relational mobility as finally conceptualized is concerned with the possibilities certain social environments offer to begin new and discard old relationships as opposed to the individual's personal inclinations and personality traits. Thus, the final version of the Relational Mobility Scale attempts to move away from this personal perspective and take a more sociological approach that focuses on the immediate society surrounding individuals.

The findings on personal relational mobility are certainly not without interest, but it will be left to future and more psychologically oriented research to delve deeper into this matter. In order to stay true to the sociological perspective in this thesis – and also in order to replicate the predecessor study – the Relational Mobility Scale was used for mediation analysis and the path analyses conducted. No further analyses using the measure of personal relational mobility were conducted in this thesis, but the reported findings should be taken as an encouragement for future research to concentrate on this aspect. It would be profitable to devise a more sophisticated measure of personal relational mobility and contrast it to the results of the Relational Mobility Scale.

Representativity is another major issue that must be addressed in this context. Despite the fact that a much larger sample was reached as opposed to the predecessor study, the present thesis still makes use of a convenience sample. Respondents were all recruited at the same university campus and thus results cannot be generalized to include e.g. students in other areas of Japan or students at universities of different size. These environments might foster varying degrees of perceived and actual relational mobility as well as have some influence on self-disclosure patterns.

The measures of self-disclosure were not suitable to differentiate between degrees of breadth and depth of disclosure, even though this distinction is an important part of the concept. Both measures were specifically targeting the deepest levels of self-disclosure to begin with and since their ultimate purpose was that of an index, comparison of individual topics was limited. This was in line with the aim of this study which focused on close friendships but nevertheless calls for inclusion of other measures of self-disclosure in future research designs.

Another quite apparent limitation of this thesis is the fact that the author had no access to the original Japanese questionnaire used in the predecessor study, with the exception of the Relational Mobility Scale (Yuki *et al.* 2007). Thus, some slight differences in wording were



inevitable even for measures that were directly adopted from the English publication of the predecessor study (Schug *et al.* 2010).

In chapter 3.1.1, it was mentioned that the reciprocity of self-disclosure makes it difficult to devise respondent-centered research designs. Since self-disclosure is influenced also by the relationship in which it takes place and the degree may vary according to the disclosure of one's communication partner (e.g. Brunell 2007:811), research which only takes into account one person's willingness to disclose, as was done in this study, will always somewhat fall short of providing the full picture.

Furthermore, the measure of motivation to engage in self-disclosure was different from the one used in the predecessor study. Schug *et al.* (2010) measured disclosure-motivation using five items instead of just one, as was done here. The application of a proxy-item might have distorted the overall picture and since the item specifically referred to the sharing of worries it might be more likely to express 'motivation to engage in *distress*-disclosure' (Kahn and Hessling 2001). Yet the fact that this measure of disclosure-motivation was generally associated with self-disclosure in the present thesis implies that the measure does fulfil its purpose to a satisfactory degree.

Overall, there is some doubt whether mediation analysis and even path analysis are appropriate methods to analyze the available data. Methodological research comparing these to non-parametric procedures in the context of self-disclosure and relational mobility would be desirable. Furthermore, in order to understand decisions and patterns of self-disclosure of the youngest generation of Japanese adults – who are socialized in a time where social norms regarding such spheres as gender or interpersonal communication are changing – statistical research should be accompanied by a qualitative and inductive approach. Research designs carrying intrinsic assumptions about traditional values and interaction patterns will not suffice to explain the reasons behind young adults' self-disclosure.

Lastly, this thesis only focused on the role of relational mobility in close friendships. Schug *et al.* reasoned that relational mobility would not have an effect on disclosure to parents because familial relations are rather stable (2010:247). What if this study did not produce the expected results because close friendships are similarly stable? The line of reasoning of the predecessor study might make more sense not in the case of relationship-maintenance but in the context of initial encounters. This refers back to the function of self-disclosure that consists in relationship development (see Chapter 3.1.1). For the same reason, inclusion of a variable that surveyed length of friendship would possibly have improved the results. As Moroi, Iwasa, and Ueki (2012) have shown, length of the relationship is associated with increased self-disclosure.

Length of friendship is also likely to have some effect on the possibility of relational mobility to influence self-disclosure. Future research should consider analyzing the role of relational mobility in different kinds (and lengths) of friendship and even employ experimental designs where initial encounters can be observed. It is possible that self-disclosure in ‘new’ friendships might be more clearly influenced by relational mobility than the sharing of personal information in close friendships, where relational mobility can be assumed to pose a less obvious threat to the stability of the relationship.

## **7.5. Final conclusion**

As for the three aims of this study the following can be concluded: a) A reexamination of the role which relational mobility plays in Japanese students’ self-disclosure provided evidence that the predecessor study should not be taken for granted: The association between relational mobility and self-disclosure found by Schug *et al.* (2010) was not supported. This is also true for the mediation effect of motivation to engage in self-disclosure. Since there has been only one study supporting this hypothesis and the follow-up study produced contradictory results, this calls for more research. Objective ‘a)’ has been met insofar as there is ample reason to scrutinize the results of the predecessor study in future research. Personal relational mobility, its similarity and distinction from ‘openness’ and personal character traits, as well as a more faceted measure of self-disclosure should also be part of future research projects. b) The inclusion of socio-economic status as a further explanatory variable for self-disclosure as well as relational mobility has not proven to be successful. More work on this subject is necessary and operationalization leaves ample room for improvement. c) Separate analysis for male and female students showed that if relational mobility can serve as a predictor of self-disclosure then this effect might be different based on respondent’s gender. Future research should always aim at the possibility to consider gender in the analysis.

Although it was not an original objective of this study, gender-differences regarding self-disclosure were observed which are distinct from the existing literature – insofar as men were consistently found to report higher levels of self-disclosure. In direct comparison to earlier research this may hint at the possibility of changing gender-roles in contemporary Japan. The parameters and norms assumed to influence communication styles of young men and women might be becoming less significant or changing altogether, even though this process might not be the same for all genders. This study shows that it is still relevant to ask for reasons and patterns of self-disclosure, because the conditions which influence disclosure might be changing.

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## Appendix A: Questionnaire (Japanese)

### 友人関係についてのアンケート調査

オーストリアのウィーン大学で日本学と社会学を専攻している交換留学生です。  
以下のアンケートは私の修士論文作成を目標として、友人関係を調査するためのものです。  
回答はすべて匿名で処理し、かつ、秘密は厳守致します。

\*\*\*

最初に、あなたの友人や知り合いについてお尋ねします。

A. 以下の文が、あなたの友人や知り合いに一般的にどれくらい当てはまるかを答えてください。（各質問についてもっとも適当な数字に○をつけてください）	全く そう 思わない	そう 思わない	あまり そう 思わない	少し そう 思う	そう 思う	とても そう 思う
A. 01. 彼ら（あなたの友人たち）には、人と知り合いになる機会がたくさんある。	1	2	3	4	5	6
A. 02. 彼らは、初対面の人と会話を交わすことがよくある。	1	2	3	4	5	6
A. 03. 彼らは、ふだんどんな人たちと付き合うかを、自分で選ぶことができる。	1	2	3	4	5	6
A. 04. 彼らには、新しい友達を見つける機会がありません。	1	2	3	4	5	6
A. 05. 彼らにとって見知らぬ人と会話することはそうあることではない。	1	2	3	4	5	6
A. 06. もし現在所属している集団が気に入らなければ、彼らは新しい集団に移っていくだろう。	1	2	3	4	5	6
A. 07. 彼らにとって、付き合う相手を自由に選べないことはよくある。	1	2	3	4	5	6
A. 08. 彼らが新しい人たちと出会うのは簡単なことだ。	1	2	3	4	5	6
A. 09. たとえ所属する集団に満足していなかったとして、彼らはたいていそこに居続けることになる。	1	2	3	4	5	6
A. 10. 彼らはどの集団や組織に所属するかを自分で選ぶことができる。	1	2	3	4	5	6
A. 11. たとえ現在の対人関係に満足していなくても、彼らはそこに留まり続けるしかないことがよくある。	1	2	3	4	5	6
A. 12. たとえ現在所属する集団から離れたいと思っても、彼らはそこに留まらざるを得ないことがよくある。	1	2	3	4	5	6

B. 以下の文に、どの程度賛成かを線に印を付けて答えてください。

B. 01. 友人と自分の悩みについて話すのは関係を強めるためにいい方法だ。	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>低</span> <div style="flex-grow: 1; position: relative;"> <div style="position: absolute; top: -10px; left: 0; right: 0; border-top: 1px solid black;"></div> <div style="position: absolute; top: 10px; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 50%; left: 0; right: 0; transform: translateY(-50%);"> <div style="position: absolute; left: 10%; width: 30%; border-bottom: 1px solid blue;"></div> <div style="position: absolute; right: 10%; width: 30%; border-bottom: 1px solid blue;"></div> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <span></span> <span>賛成</span> <span></span> </div> </div>	高
B. 02. 結婚すると異性の友人関係を保持するのは難しい。	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>低</span> <div style="flex-grow: 1; position: relative;"> <div style="position: absolute; top: -10px; left: 0; right: 0; border-top: 1px solid black;"></div> <div style="position: absolute; top: 10px; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 50%; left: 0; right: 0; transform: translateY(-50%);"> <div style="position: absolute; left: 10%; width: 30%; border-bottom: 1px solid blue;"></div> <div style="position: absolute; right: 10%; width: 30%; border-bottom: 1px solid blue;"></div> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <span></span> <span>賛成</span> <span></span> </div> </div>	高
B. 03. 女性と男性の間の友人関係には性的なものも含まれている。	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>低</span> <div style="flex-grow: 1; position: relative;"> <div style="position: absolute; top: -10px; left: 0; right: 0; border-top: 1px solid black;"></div> <div style="position: absolute; top: 10px; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 50%; left: 0; right: 0; transform: translateY(-50%);"> <div style="position: absolute; left: 10%; width: 30%; border-bottom: 1px solid blue;"></div> <div style="position: absolute; right: 10%; width: 30%; border-bottom: 1px solid blue;"></div> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <span></span> <span>賛成</span> <span></span> </div> </div>	高



C. このページの質問は、すべてあなたのもっとも親しい**女性の友人一人**に関するものです。もしも女性の友人を一人に決められない場合は、任意で一人対象者を選んでください。（もし女性の友人が一人もない場合は、このページの質問を飛ばしてください。）

C1. その女性の友人と以下のトピックについてあなたはどの程度まで話しますか。もっとも当てはまる答えに○をつけてください。	話 さ な い	全 く			よ く 話 す	か な り
C1.01. 自分の習慣や癖	○	○	○	○	○	
C1.02. 過去にした罪悪感を感じる事	○	○	○	○	○	
C1.03. 自分なら公の場ではしない事	○	○	○	○	○	
C1.04. 自分の心の底の気持ち	○	○	○	○	○	
C1.05. 自分自身の好きなところと嫌いなところ	○	○	○	○	○	
C1.06. 自分の生活・人生にとって大切な事	○	○	○	○	○	
C1.07. 自分が自分であるために必要なもの	○	○	○	○	○	
C1.08. 一番恐れている事	○	○	○	○	○	
C1.09. 自分が誇りを持っている事	○	○	○	○	○	
C1.10. ほかにの人との親密な関係	○	○	○	○	○	
C2. その女性の友人と以下のトピックについて話しますか。話す見込みがどの程度あるかを評価してください。	す は な い	あ 見 込 み	ま り 話		が あ る	非 常 に
C2.01. 一番大きな秘密	○	○	○	○	○	
C2.02. もっとも恥ずかしかった経験	○	○	○	○	○	
C2.03. 一番酷い失敗	○	○	○	○	○	
C2.04. 一番大きい悩み	○	○	○	○	○	
C2.05. 自分に起きた一番悪い事	○	○	○	○	○	

C3. あなたの一般的な友人関係（同性もしくは異性）と比較した場合、あなたとその女性の友人との関係の親密さはどの程度ですか。以下の表を用いて線の上に印を付けて評価してください。

低      高

←      親密さ      →

C4. あなたが知っているほかの人の親密な人間関係（同性もしくは異性）を考えてみてください。その人間関係と比較して、あなたとその女性の友人との関係の親密さをあなたはどのように評価しますか。同じく以下の表を用いて評価してください。

低      高

←      親密さ      →

C5. その女性の友人との関係は10年後も今と同じように続いていると思いますか？関係が続くであろう可能性を評価してください。同じく以下の表を用いて評価してください。

低      高

←      可能性      →

D. このページの質問は、すべてあなたのもっとも親しい**男性の友人一人**に関するものです。もしも男性の友人を一人に決められない場合は、任意で一人対象者を選んでください。（もし男性の友人が一人もない場合は、このページの質問を飛ばしてください。）

D1. その男性の友人と以下のトピックについてあなたはどの程度まで話しますか。もっとも当てはまる答えに○をつけてください。	話さない	全く				よく話す	かなり
D1. 01. 自分の習慣や癖	○	○	○	○	○		
D1. 02. 過去にした罪悪感を感じる事	○	○	○	○	○		
D1. 03. 自分なら公の場ではしない事	○	○	○	○	○		
D1. 04. 自分の心の底の気持ち	○	○	○	○	○		
D1. 05. 自分自身の好きなところと嫌いなところ	○	○	○	○	○		
D1. 06. 自分の生活・人生にとって大切な事	○	○	○	○	○		
D1. 07. 自分が自分であるために必要なもの	○	○	○	○	○		
D1. 08. 一番恐れている事	○	○	○	○	○		
D1. 09. 自分が誇りを持っている事	○	○	○	○	○		
D1. 10. ほかの人との親密な関係	○	○	○	○	○		
D2. その男性の友人と以下のトピックについて話しますか。話す見込みがどの程度あるかを評価してください。	話さない	あまり見込み				がある	非常に
D2. 01. 一番大きな秘密	○	○	○	○	○		
D2. 02. もっとも恥ずかしかった経験	○	○	○	○	○		
D2. 03. 一番酷い失敗	○	○	○	○	○		
D2. 04. 一番大きい 悩み	○	○	○	○	○		
D2. 05. 自分に起きた一番悪い事	○	○	○	○	○		

D3. あなたの一般的な友人関係（同性もしくは異性）と比較した場合、あなたとその男性の友人の  
関係の親密さはどの程度ですか。以下の表を用いて線の上に印を付けて評価してください。

低 ←→ 高

親密さ

D4. あなたが知っているほかの人の親密な人間関係（同性もしくは異性）を考えてみてください。  
その人間関係と比較して、あなたとその男性の友人との関係の親密さをあなたはどのように  
評価しますか。同じく以下の表を用いて評価してください。

低 ←→ 高

親密さ

D5. その男性の友人との関係は10年後も今と同じように続いていると思いますか？関係が続く  
であろう可能性を評価してください。同じく以下の表を用いて評価してください。

低 ←→ 高

可能性

E. もしも親しい友人の中に自分が男性・女性の性別区分に当てはまらないと考えている人がいる場合、このページを利用してください。いない場合は、このページの質問を飛ばしてください。

E1. その友人と以下のトピックについてあなたはどの程度まで話しますか。もっとも当てはまる答えに○をつけてください。	話 さ な い	全 く			よ く 話 す	か な り
E1.01. 自分の習慣や癖	○	○	○	○	○	
E1.02. 過去にした罪悪感を感じる事	○	○	○	○	○	
E1.03. 自分なら公の場ではしない事	○	○	○	○	○	
E1.04. 自分の心の底の気持ち	○	○	○	○	○	
E1.05. 自分自身の好きなどところと嫌いなどところ	○	○	○	○	○	
E1.06. 自分の生活・人生にとって大切な事	○	○	○	○	○	
E1.07. 自分が自分であるために必要なもの	○	○	○	○	○	
E1.08. 一番恐れている事	○	○	○	○	○	
E1.09. 自分が誇りを持っている事	○	○	○	○	○	
E1.10. ほかの人との親密な関係	○	○	○	○	○	
E2. その友人と以下のトピックについて話しますか。話す見込みがどの程度あるかを評価してください。	す は な い	あ 見 込 み	あ ま り 話		が あ る	非 常 に
E2.01. 一番大きな秘密	○	○	○	○	○	
E2.02. もっとも恥ずかしかった経験	○	○	○	○	○	
E2.03. 一番酷い失敗	○	○	○	○	○	
E2.04. 一番大きい 悩み	○	○	○	○	○	
E2.05. 自分に起きた一番悪い事	○	○	○	○	○	

E3. あなたの一般的な友人関係（同性もしくは異性）と比較した場合、あなたとその友人の関係の親密さはどの程度ですか。以下の表を用いて線の上に印を付けて評価してください。

低      高

←      親密さ      →

E4. あなたが知っているほかの人の親密な人間関係（同性もしくは異性）を考えてみてください。その人間関係と比較して、あなたとその友人との関係の親密さをあなたはどのように評価しますか。同じく以下の表を用いて評価してください。

低      高

←      親密さ      →

E5. その友人との関係は10年後も今と同じように続いていると思いますか？関係が続くであろう可能性を評価してください。同じく以下の表を用いて評価してください。

低      高

←      可能性      →

F. あなたが過去一年の間に会った人について回答してください。

F. 01. 過去一年の間に、会った人の中で新たに友人と呼べるようになった人は何人ぐらいいますか。

人数 ( )

F. 02. その人たちの性別は？

男性の人数 ( ) 女性の人数 ( ) その他 ( )

F. 03. 過去一年の間に、会った人の中で新たに親友と呼べるようになった人は何人ぐらいいますか。

人数 ( )

F. 04. その人の性別は？

男性の人数 ( ) 女性の人数 ( ) その他 ( )

G. あなた自身と家族に関する以下の項目について、分かる範囲で回答してください。

G. 01. 性別 ( )	G. 04. 学年 ( )
G. 02. 年齢 ( )	G. 05. 現在在籍している大学 ( )
G. 03. 国籍 ( )	G. 06. 家族のおおよその年収 ( )
G. 07. 生まれ育った場所（都道府県で記入して下さい。日本以外の国で生まれ育った場合はその国の名前を記入して下さい。） ( )	
G. 08. 母親の職業 ( )	G. 10. 父親の職業 ( )
G. 09. 母親の最終学歴 ( )	G. 11. 父親の最終学歴 ( )

該当項目を○で囲み、該当事項を括弧の中に書き入れてください。

G. 12. あなたが毎月、自分のために使うことができるお金（家賃、食費、娯楽費など） ( )
G. 13. アルバイトをしていますか。    している    ・    していない
G. 14. （していると答えた方へ）毎月、何時間ぐらいアルバイトをしていますか？ ( )
G. 15. 結婚していますか。    している    ・    していない
G. 16. 兄弟や姉妹はいますか。 兄弟の人数 ( )    姉妹の人数 ( )
G. 17. 留学したことや六か月以上外国に住んでいたことがありますか。    ある    ・    ない
G. 18. （あると答えた方へ）その国はどこでしたか。 ( )
G. 19. もっとも何でも話すことができる人は誰ですか。 1) 「C.」 の女性の友人 2) 「D.」 の男性の友人 3) 「E.」 の友人 4) その他 ( )

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## **Appendix B: Abstract (English)**

Self-disclosure has been regarded as a fundamental aspect of interpersonal relationships for decades. Its important role in the development and maintenance of friendships is undisputed in social psychology. In 2010 Schug *et al.* proposed relational mobility – the possibilities provided by one's social environment to establish new and discard existing relationships – as a novel explanatory factor for between- and within-culture variance in self-disclosure. By doing so, they combined a new societal level variable with the subject of self-disclosure. They found that Japanese students' self-disclosure in close friendships was higher when they perceived their own environment to be high in relational mobility and that this effect was mediated by students' motivation to strengthen their relationships through disclosure. So far, Japan is the only culture for which such an effect of relational mobility has been reported. Based on theoretical limitations of the work by Schug *et al.*, this Master's thesis replicates their study in order to put these findings to the test. Greater sample size and additional variables provide for a more reliable analysis. Furthermore, gender of discloser and disclosure target are taken into account. The results do not support the findings of the predecessor study in regard to relational mobility. However, the study produced the unexpected result that male student's self-disclosure was greater than that of their female colleagues both in same-sex and different-sex friendships.

## **Appendix C: Abstract (German)**

Selbstoffenbarung wird seit Jahrzehnten als grundlegender Aspekt von zwischenmenschlichen Beziehungen angesehen. Ihre wichtige Rolle für die Bildung sowie den Erhalt von Freundschaften ist in der Sozialpsychologie unumstritten. Im Jahr 2010 stellten Schug *et al.* das Konzept der Relationalen Mobilität – die Möglichkeiten, in einem gegebenen sozialen Umfeld frische Beziehungen zu knüpfen und bestehende Beziehungen zu beenden – als neuen erklärenden Faktor für inter- und intrakulturelle Unterschiede in Selbstoffenbarung vor. Dadurch verbanden sie eine neue Variable gesellschaftlicher Ebene mit dem Thema der Selbstoffenbarung. Sie machten die Entdeckung, dass die Selbstoffenbarung von japanischen StudentInnen in engen Freundschaften höher war, wenn diese ihr eigenes soziales Umfeld als relational mobil wahrnahmen. Die Motivation der Studierenden, ihre Beziehungen durch Selbstoffenbarung zu stärken, fungierte als Mediator für diesen Zusammenhang. Bisher wurde dieser Effekt ausschließlich in japanischem Kontext nachgewiesen. Basierend auf theoretischen Engpässen der Arbeit von Schug *et al.* wird ihre Studie in dieser Masterarbeit repliziert und überprüft. Ein größeres Sample und zusätzliche Variablen ermöglichen eine verlässlichere Analyse. Zudem wird das Geschlecht der StudentInnen und der RezipientInnen ihrer Selbstoffenbarung in Betracht gezogen. Die Resultate der Vorgängerstudie in Bezug auf die Rolle Relationaler Mobilität werden nicht unterstützt. Es findet sich jedoch das überraschende Resultat, dass die Selbstoffenbarung männlicher Studenten die ihrer weiblichen Kolleginnen übertrifft – sowohl in gleichgeschlechtlichen wie auch in verschieden-geschlechtlichen Freundschaften.