

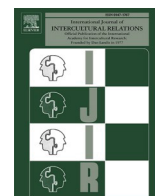


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# Cultural competence, acculturation orientations, and attachment dimensions in future social workers and occupational therapists before entering these professions: A comparative study

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### ABSTRACT

The paper discusses the importance of considering diversity in public institutions and the need for intercultural training for practitioners. It emphasizes the psychological characteristics essential for dealing with diversity, focusing on multicultural personality traits, host community acculturation orientations, and adult attachment. The study aims to assess these psychological characteristics in future social workers and occupational therapists across three settings (France, n=273, Quebec, n=63, and Switzerland, n=66) before their integration internships. It is expected that certain personality profiles will be associated with favorable acculturation orientations and secure attachment, while others will be linked to less welcoming acculturation orientations and insecure attachment. Participants completed the Multicultural Personality Questionnaire (MPQF), the Host Community Acculturation Scale (HCAS) and the Revised Adult Attachment Scale (RAAS). Analysis methods include hierarchical cluster analysis on the MPQF to identify intercultural personality profiles and subsequent ANOVAs to explore associations with acculturation orientations and attachment dimensions. Four multicultural personality profiles are identified: considerate (open and attentive), adaptive (handling new situations well), maladaptive (low scores on

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all traits, uncomfortable in intercultural situations), and reticent (reserved in intercultural encounters). Specific profiles align with distinct acculturation orientations, such as the considerate profile with a rejection of exclusion. Additionally, the adaptive profile displays consistently low anxiety levels. The study highlights that a significant proportion of students (40% to 60%) may lack competence in intercultural contexts. It questions the adequacy of intercultural training in curricula and emphasizes the need for further research on the impact of such training on students' competence in handling diversity.

## Introduction

For several decades now, researchers, professional organizations and other civil society bodies have been calling for diversity to be considered in the interventions of public institutions (Beagan, 2015; Hall & Theriot, 2016; Henderson, Horne, Hills, & Kendall, 2018; Kohli, Huber, & Faul, 2010; OECD Public Governance Committee, 2009). The failure to adapt services to this diversity is recognized as having harmful effects both on the users who need the services and on the practitioners themselves, who become exhausted and demotivated by offering services whose inadequacies they clearly see (Cai, 2016; Govender et al., 2017; Hall & Theriot, 2016; Hammell, 2013).

In this context, intercultural training is essential. Denson et al. (2021)'s (Denson, Bowman, Ovenden, Culver, & Holmes, 2021) meta-analysis has clearly established that training on diversity issues has positive, yet modest, effects on a variety of cognitive, affective and behavioral outcomes. A first explanation may be the rarity of such training. Although recommended, it remains optional in curricula (Beaudoin-Julien, Demers, & Leanza, 2022). This teaching is often offered as a specialized course rather than disseminated throughout the curriculum, which is known to have a greater effect (Denson et al., 2021). A second explanation relies on the fact that the teachings tend not to be experiential (Beaudoin-Julien et al., 2022). A third explanation, little explored to our knowledge, is a set of psychological characteristics recognized as essential in dealing with diversity. It can be hypothesized that certain individuals are better able to benefit from these lessons because of supportive personality traits (called multicultural personality traits) (Hofhuis, Jongerling, Van Der Zee, & Jansz, 2020a; Hofhuis, Jongerling, Van Der Zee, & Jansz, 2020b), favorable attitudes towards diversities, particularly towards migrants and ethno-cultural diversity (host community acculturation orientations) (Lu, Lee, & Wan, 2023; Sapienza, Hichy, Guarnera, & Di Nuovo, 2010), and the ability to establish quality bonds despite differences (referring to adult attachment) (Bakker, van Oudenhoven, & Van Der Zee, 2004). Not all pedagogical modalities are suitable for all students, especially as the themes addressed in intercultural training can be very sensitive (bias and prejudice, privilege, colonialist practices...) (Rodríguez-Izquierdo, 2021). Having a portrait of the students' psychological characteristics, as the future practitioners of public institutions, could help trainers and decision-makers modulating the pedagogical options available in intercultural training. The aim would be to maximize the effects of such training, even if part of the public is, a priori, reticent.

## Multicultural personality traits

Certain personality traits have been shown to be essential for adaptation in intercultural contexts. Wilson, Ward, and Fisher (2013) established through their meta-analysis that domain-specific personality traits, such as cultural empathy, are better predictors of cultural competence than general traits measured, for example, by the Big Five. Van der Zee and van Oudenhoven (2000) proposed, after a thorough literature review, that five personality traits are essential for multicultural effectiveness; later called by the same authors cultural competence (Hofhuis et al., 2020a; Hofhuis et al., 2020b). These traits are open-mindedness (OP), social initiative (SI), cultural empathy (CE), emotional stability (ES), and flexibility (FL). OP can be described as an attitude exempt of prejudice toward the outgroup and its culture and values (Van Der Zee & van Oudenhoven, 2000). SI refers to the "orientation to action", or the propensity to take action or to "make things happen" (McCall, 1994). CE is "the capacity to clearly project an interest in others, as well as to obtain and to reflect a reasonably complete and accurate sense of another's thoughts, feeling and/or experiences" (Ruben, 1976, p. 340). ES can be expressed as the capacity to deal with psychological stress, anxiety, frustration, conformity pressure, financial problems, social alienation, interpersonal conflict, and other political systems (Hammer, Gudykunst, & Wiseman, 1978). At last, FL is the capacity to adapt one's own behavior when needed and to learn from new experiences and mistakes (Van Der Zee & van Oudenhoven, 2000).

The Multicultural Personality Questionnaire (MPQ), developed by van der Zee and Van Oudenhoven (2000) to measure the five traits described above, was used mainly with international students (Van Oudenhoven & Van Der Zee, 2002; Van Oudenhoven, Mol, & Van Der Zee, 2003) or expatriate employees (Van Oudenhoven et al., 2003). The MPQ is considered one of the best questionnaires for highlighting cultural competence (Leung, Ang, & Tan, 2014; Matsumoto & Hwang, 2013). A high score on all five subscales predicts better adaptation to a cross-cultural situation (Hofhuis et al., 2020a; Hofhuis et al., 2020b), even if it is stressful (Van Der Zee et al., 2004). Similar personality traits (measured with other questionnaires), especially openness, predict positive attitudes to workplace diversity (Anglim, Sojo, Ashford, Newman, & Marty, 2019) or workplace diversity initiatives (Lal-Trail et al., 2023). Researchers showed that those traits can change throughout training or intercultural experiences (An and Chiang, 2015; Schartner, 2016). Although research has focused on students, studies of future practitioners, at the time they are to enter their profession (internship) are rare. Assessing these traits prior to entry into the profession, that is when students make the transition from university to the (supervised) practice that will be at the heart of their profession, could provide essential insights for supervisors and others involved in their practical training.

## Host community acculturation orientations

The interactive acculturation model (IAM) proposes an interactive perspective on the acculturation process (Bourhis, Moïse, Perreault, & Senécal, 1997), implying the possibility of six acculturation orientations for members of the host community (Montreuil, Bourhis, & Vanbeselaere, 2004). These acculturation orientations are the attitudes endorsed by members of the host community towards migrants. These are integrationism (INT), transformative integrationism (TRA), individualism (IND), assimilationism (ASM), segregationism (SEG) and exclusionism (EXC). The three first orientations are considered “welcoming” as they show respect for both groups (host majority and migrants) and the last three, “rejecting” or “unwelcoming”, as they imply some kind of rejection of migrants. INT means to welcome migrants as they are and to understand that migrants will also adopt important features of the host community. People endorsing TRA are willing to modify the host community to better integrate migrants. IND endorsers are more prompt to judge people on individual factors rather than on cultural ones: Successful acculturation is seen as an individual merit more than a group strategy. Endorsers of ASM see acculturation as a conditional process of totally adopting the host community culture and giving up heritage culture(s). People endorsing SEG agree to have other cultures within the community, but do not want to interact with them. They would like migrant cultures to be separated from their own, with no overlapping. Finally, exclusionists would simply not want people from any other culture to be included in their community while maintaining negative attitudes toward migrants.

Most studies on acculturation orientations with reference to the IAM were carried out with students. They showed that these participants more readily endorse INT and IND orientations, in line with the values prevalent in university studies: individual success and reward for merit (Montreuil & Bourhis, 2001). However, this trend depends on the target group: It is maintained if the migrant group is valued, but decreases significantly if the group is devalued (such as Arab Muslim migrants). This has been verified in several contexts: Quebec (Montreuil & Bourhis, 2004), France (Barrette, Bourhis, Personnaz, & Personnaz, 2004) and Switzerland (Ogay, Bourhis, Barrette, & Montreuil, 2001). Existing migration policies are also known to influence the acculturation orientation choices of host community members (Bourhis, Montaruli, El-Geledi, Harvey, & Barrette, 2010). Likewise, endorsement varies according to the areas in which the orientations apply (public or private). For public domains, such as work, participants endorse more welcoming orientations, and when questioned about private domains, such as love relationships, people are more likely to endorse rejecting orientations (Bourhis, Barrette, El-Geledi, & Schmidt, 2009; Castellini, Colombo, Maffei, & Montali, 2011).

Numerous studies showed the existence of distinct social-psychological profiles, depending on whether people favor welcoming or rejecting acculturation orientations. For example, rejection orientations are associated with authoritarianism (Bourhis & Bougie, 1998), right-wing (Bourhis & Dayan, 2004) or a conservative political stance (Sapienza et al., 2010), negative attitudes towards migrants and cultural insecurity (Bourhis, Barrette, & Moriconi, 2008) and propensity to discriminate (Wagner, Tisserant, & Bourhis, 2013). On the other hand, welcoming acculturation orientations are associated with OP, CE and FL (Tétreault et al., 2020). Measuring acculturation orientation is therefore a way of evaluating several dimensions that may prove important in interactions in a diversity context.

## Adult attachment

Another psychological characteristic that helps understand interactions in diversity contexts is adult attachment, though not much explored (Brisset, 2021). Based on the work of Hazan and Shaver's (Hazan and Shaver, 1987) adult attachment styles (secure, anxious and avoidant), Collins and Read (Collins & Read, 1990) have distinguished three underlying attachment dimensions. Dependence relates to the extent to which an individual believes others can be depended on to be available when needed. Closeness concerns the extent to which an individual is comfortable with intimacy and closeness; and anxiety concerns the extent to which an individual feels anxious about being abandoned or unloved. These dimensions capture one's attachment representations and inform of one's attachment style. Secure attachment is characterized by a positive image of self as worthy of love and an image of others as capable of meeting needs. Securely attached individuals perceive others as trustworthy and engage in social interactions with confidence. They are comfortable with closeness and are not anxious about being abandoned or unappreciated. Insecure-avoidant attachment is defined by a positive self-image and a negative image of others. Individuals with avoidant attachment do not trust others, avoid social contact, and often claim to not need anyone. They are uncomfortable with closeness and intimacy and are unconcerned about being abandoned. Insecure-anxious attachment is characterized by positive evaluation of the other and negative evaluation of self. Anxious individuals are comfortable with closeness and perceive the other as a source of support, but are very concerned about being abandoned or unappreciated (Collins & Read, 1990; Maunder & Hunter, 2012).

Numerous findings indicated that attachment dimensions and styles modulate interpersonal relationships (Degnan, Seymour-Hyde, Harris, & Berry, 2014; Levy, Ellison, Scott, & Bernecker, 2011). More broadly, they influence how an individual behaves in novel situations as well as how to approach unfamiliar individuals (Cassidy & Shaver, 1999). For example, for new students, adjustment to college correlates positively with secure attachment and negatively with insecure attachments (Lapsley & Edgerton, 2002). Additionally, individuals with secure attachment favor migrant integration more as an acculturation strategy (Van Oudenhoven & Hofstra, 2006) and, in contrast, future social workers and occupational therapists who are anxious with regard to attachment and have little OP tend to favor rejection acculturation orientations (Tétreault et al., 2020). Individuals with a positive self-image and a positive image of others seem to approach interpersonal relationships with confidence and tend to generalize these behaviors in the context of cultural diversity (Hofstra, van Oudenhoven, & Buunk, 2005; Van Oudenhoven & Hofstra, 2006). Finally, secure attachment correlates with less defensiveness, greater openness, and more empathy and compassion (Gillath, Bunge, Shaver, Wendelken, & Mikulincer, 2005; Mikulincer, 1997; Mikulincer and Shaver, 2001). Other researchers found that people with an anxious attachment style, or a sense of insecurity, are more likely to endorse rejecting acculturation orientations (Goedert, Albert, Barros, & Ferring, 2019).

## Purpose of study

The scientific literature highlights multicultural personality (MP), acculturation orientations and adult attachment, as three central psychological variables in understanding cross-cultural relationships (Bourhis et al., 2008; Korol, Gonçalves, & Cabral, 2016; Van Oudenhoven & Hofstra, 2006). However, to our knowledge, only two studies assessed them jointly (Hofstra, 2009; Tétreault et al., 2020). The links between acculturation orientations, adult attachment, and MP still remain poorly generalizable. Indeed, the Dutch studies that linked acculturation orientation and adult attachment (Hofstra, 2009; Hofstra et al., 2005; Van Oudenhoven & Hofstra, 2006), and the one that captured MP (Hofstra, 2009) were conducted with the same samples, which reduces the external validity of their results. It is imperative that more such studies be conducted to see if there is a convergence of results with a different population. The present research project attempts to address this shortcoming.

Moreover, studies on intercultural personality traits and acculturation orientation focused mainly on general students, often at undergraduate level (e.g., Van Oudenhoven et al., 2003; Montreuil & Bourhis, 2001) in fields that do not necessarily lead to professional practice. Some studies recruited broader adult sample from the general population but without a focus on a specific profession or a specific time in a career (e.g., Van Oudenhoven & Hofstra, 2006). They did not explore the link with the possibility of these students becoming practitioners in public institutions, whether in health, education or justice. Yet they are the very same people who will then be responsible for welcoming and intervening with diverse populations. We will target this specific population (future social workers (SW) and occupational therapists (OT) at the time they will enter their profession) as it will be on the front line when it comes to receiving users and will therefore play a major role in welcoming diversity into these public institutions and society in general.

This study aims to assess personality traits necessary in intercultural contexts, acculturation orientations and attachment dimensions of future SW and OT just as these students are about to enter the profession, that is in the weeks just before their integration internship, at the end of their mandatory academic training. The study also seeks to examine the variations of these psychological characteristics across three distinct francophone Western contexts: France, Quebec, and French-speaking Switzerland. These contexts provide diverse socio-political frameworks for migrant integration (assimilationism vs. pluralism), making them ideal for analyzing the impact of such policies on future practitioners' intercultural profiles. Furthermore, despite linguistic and cultural similarities between the three contexts, the differences in policies and in the training programs (access to intercultural training) make this comparison a relevant means of understanding variations in cultural competence. We posit that a comparative study can contribute to the existing literature on training and cultural competence, as well as test the robustness and generalizability of the theoretical model on personality traits needed in an intercultural context and its links with major variables such as acculturation orientation and adult attachment. Our original approach to the analysis of intercultural personality profiles has the potential to lead to new theoretical developments in cultural competence and training.

## Research questions

Previous research using the MPQ often concluded that some of the five traits are more present than others and have a significant part in predicting other variables. For example, Yakunina et al (Yakunina, Weigold, Weigold, Hercegovac, & Elsayed, 2012) showed a direct effect of ES and SI on the adjustment of international students in the USA, and an indirect effect for the other three traits. Nesdale, de Vries Robbe, and van Oudenhoven (2012) found that CE, OP and FL are inversely associated with prejudice against Australian Aborigines. These are the same traits that Tétreault et al (Tétreault et al., 2020) associated with welcoming acculturation orientations. Rather than keeping these traits separate, in this study we have chosen to explore intercultural personality profiles to describe how these traits combine with each other, and their links with acculturation orientations and attachment dimensions. To our knowledge, it is the first time such a clustering will be done to reveal personality (or competence) profiles. The following research questions are posed:

1. What are the intercultural personality profiles among social work and occupational therapy students?
2. How do these profiles differ in acculturation orientations?
3. How do these profiles differ according to attachment dimensions?
4. What are the differences and similarities between the three national contexts studied?

## Hypotheses

The intercultural personality profiles will be obtained using a hierarchical classification analysis. Although this is an exploratory analysis, it is expected that some profiles will have higher personality trait averages than others. It is also expected, based on what is reported in the scientific literature, that some profiles will be associated with favorable acculturation orientations and secure representation of adult attachment, while others will be associated with insecure representation and less welcoming acculturation orientations.

## Method

Three studies using the same methodology were carried out among SW and OT students, in France (Study 1), Quebec (Study 2) and French-speaking Switzerland (Study 3). In Quebec and Switzerland, this study is part of larger research projects about the relationship to the Other before entering one's profession (Demers et al., 2022; Tétreault et al., 2020).

## Procedure

Ethical approval was obtained from the ethics committee of the principal investigator's university in Quebec (certificate #2017-192 R-6), and in all other universities in the province offering programs in social work and occupational therapy. According to the rules in France and Switzerland, no ethics certificate was required, since the participants were not patients nor was data about their health collected and the method was non-intrusive. Despite this, all participants were asked to read and sign a consent form. Participants were recruited by emails through their program directors and asked to complete an online survey in the weeks before the beginning of their last internship. More details on the participants are given in the results for each context.

## Questionnaires

The survey included the Multicultural Personality Questionnaire (MPQF), the Host Community Acculturation Scale (HCAS), the Revised Adult Attachment Scale (R-AAS), and a sociodemographic questionnaire.

A sociodemographic questionnaire (self-report measure) was developed to gather information about the participants. In addition to basic socio-demographic information (gender, age, nationalities), a question about having attended intercultural training courses was also included.

The short validated French version (MPQF) (Faniko, Grin, & Ghisletta, 2015) of the Multicultural Personality Questionnaire (Van Der Zee et al., 2013; Van Der Zee & van Oudenhoven, 2000) was used. The MPQF comprises 37 items divided into five subscales: CE (e.g., "I consider others' emotions"), OP (e.g., "I read a lot"), FL (e.g., "I do things as planned"), SI (e.g., "In group, I am easy going") and ES (e.g., "I have ups and downs"). Participants were asked to indicate the extent to which each statement applies to them on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The Host Community Acculturation Scale (HCAS) consists of 24 items to be rated on a seven ranks scale from totally disagree to totally agree (Bourhis & Bougie, 1998; Montreuil & Bourhis, 2004). Items are divided between four domains – culture, values, customs, and marriage – and the six acculturation orientations: INT (e.g., "immigrants should maintain their native culture whilst endorsing the host community's culture"), TRA (e.g., "host-community members should change certain aspects of their culture to better integrate immigrants"), IND (e.g., "either immigrants maintain their native culture or not does not matter since every individual can choose their culture that suits them"), SEG (e.g., "immigrants can maintain their native culture, as long as it does not impact on the host-community's own culture"), ASM (e.g., "immigrants should abandon their native culture to endorse the host-community's culture"), and EXC (e.g., "host community members have nothing to gain from immigrants and their culture").

The Revised Adult Attachment Scale (R-AAS) (Collins, 1996), validated in French (Brisset et al., submitted), measures the dimensions underlying each individual's representations of his or her relationships with others. It comprises 18 items divided into three subscales: dependence (e.g., "I know people will be there for me when I will need them"), closeness (e.g., "I get nervous when someone tries to get too close to me") and anxiety (e.g., "I often worry that my friends really like me"). Participants are asked to indicate their level of agreement with each statement on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

In each setting, reliability for the MPQF and the R-AAS dimensions was overall satisfactory (see Table 1 for details). Due to low Cronbach alphas on the HCAS, an exploratory factor analysis (EFA) was performed. Results showed that marriage items saturated together and formed a distinct factor. Orientation subscales had lower alphas when including these items. Thus, marriage items were removed and their deletion led to overall better scales' reliability.

## Analyses

All analyses were done with SPSS 26. First, the distribution of the data and the reliability of the different scales were verified. Descriptive statistics were also calculated to describe the samples.

To identify MP profiles, a hierarchical cluster analysis based on the five dimensions (internal variables) of the MPQF (standardized for each sample) was performed using the complete linkage method and Euclidian distance for similarity measurement. Solutions with two to six clusters were explored with regards to acculturation orientations and attachment dimensions (external variables) in each setting using analyses of variances (ANOVA) or Brown-Forsythe tests, when Levene's test was significant, and completed with Tukey or Games-Howell post-hoc tests, respectively. In the three studies, a solution with four clusters was chosen as each cluster was clearly different from the other as was confirmed by the ANOVAs. Every statistical test was performed with an alpha of 0.05. One-way ANOVAs were also performed to compare the effect of sociodemographic variables (sex, age and nationality) on clusters.

**Table 1**

MPQF subscales means, standard deviations and Cronbach alphas for France, Quebec and Switzerland samples.

MPQF subscales	France			Quebec			Switzerland		
	M	SD	$\alpha$	M	SD	$\alpha$	M	SD	$\alpha$
OP	3.50	.63	.74	3.58	0.64	.82	3.66	0.56	.62
SI	3.35	.56	.77	3.53	0.45	.74	3.52	0.49	.76
CE	4.03	.40	.71	4.17	0.43	.82	4.01	0.42	.71
ES	2.94	.71	.81	3.01	0.54	.73	2.99	0.58	.73
FL	3.17	.66	.79	3.12	0.57	.81	3.31	0.60	.77

## Results

First, some elements of the context of the studies (immigration rates, migration policies, and attitudes toward migrants) and the description of the participants are presented; second, results on the intercultural personality profile are given; and third, results on the external variables (acculturation orientations, attachment, and sociodemographics) are provided.

### Contexts and participants

#### Study 1: France

France's immigration rate is 0.4%, or around 275,000 people per year, placing it among the OECD countries with low immigration rates, such as the United States and Great Britain (OCDE, 2022). To this figure must be added asylum applications, which are counted separately: around 150,000 per year (Vie-Publique.Fr La Rédaction, 2023). According to Bolzman (Bolzman, 2001), who proposes a typology of integration models based on an analysis of rights, the French model is that of assimilationist citizenship: As individuals, migrants can acquire the same rights as citizens, but diversity remains a threat to the proper functioning of the Republic, so cultural rights are seen as an obstacle to integration. The Migrant Integration Policy Index (MIPEX) is a tool used to evaluate and compare what governments are doing to promote the integration of migrants. It gives a single score out of 100 by evaluating 58 indicators linked to integration laws and policies in various fields (health, education, access to employment, civic participation...). That score is 56 for France (on average it is 49 for the 56 countries included) (Solano & Huddleston, 2020a). This score is similar to a majority of Western and OECD countries. MIPEX describes the French approach as temporary integration: It gives non-European citizens basic rights and some support for equal opportunities, but not long-term security. Despite some progress noted by MIPEX over the past 15 years, the republican model of assimilation is still dominant, with political debates affirming equality for all, but avoiding issues of racial discrimination even though they are present in the daily lives of French citizens (Mcavay & Safi, 2023; Tiberj & Michon, 2013). Racialized people, whether migrants or not, experience discrimination of all kinds, but particularly in hiring (Arnoult et al., 2021; Safi, 2023).

Two hundred and seventy-three students from France (86.1% women, N=235) answered the questionnaire, 131 (48%) are future OT and 142 (52%) future SW. They ranged in age from 18 to 51 years old, mean 23 (SD = 6.1). Two hundred and sixty-eight (98.2%) declared French nationality and 18 (6.6%) a second one. Only eight (2.9%) participants had a class on intercultural issues.

#### Study 2: Quebec

The province of Quebec within Canada is a unique context of a society built on settlers of francophone descent within a larger nation of anglophone settler descent. Quebec's immigration rate is 0.6%, or around 50,000 people per year, which is rather low compared to other OECD countries and in line with the average for other Canadian provinces (OCDE, 2020). Immigration is highly selective, based on employability criteria. Between 10,000 and 60,000 asylum seekers are added to these selected migrants every year (Government of Canada, 2023). About 470,000 temporary migrants (temporary farm workers and international students mainly) are also living in the province of Quebec (Statistics Canada, 2023). Canada's MIPEX is 80 (Solano & Huddleston, 2020b), placing it in the top 10 countries evaluated. According to this index, Canadian policies exemplify a comprehensive approach to integration that guarantees equal rights, opportunities and security for newcomers and citizens alike. This is also noted by Bolzman (Bolzman, 2001), who presents the Canadian model as an example of multicultural citizenship, which implies that migrants have the same rights as citizens. However, in Quebec, various studies show discrimination in the workplace (lower wages and overqualification) against migrants, particularly racialized ones (Boudarbat & Ebrahimi, 2016; Fleury, Bélanger, & Piché, 2022). What's more, the last 20 years have seen migration and reception policies change significantly in the province as Quebec has a say over its immigration (in practice, this translates into a selection of economic migrants by the province prior to selection by Canada). While Quebec used to be known for its pluralist welcome (Bourhis et al., 1997), changes brought about by successive governments, whatever their allegiance, have restricted migration. It is "bills and codes of life reaffirming the prerogative of the majority" that prevail (Couture and St-Louis, 2022, p. 806).

The Quebec study included 48 (76.2%) SW and 15 (23.8%) OT students, for a total of 63 (92.1% women, N=58). They ranged in age from 21 to 55 years old, mean 25.4 (SD = 6.4). Sixty-two (98.4%) identified themselves as Canadian or Quebecois and one as First Nation. Nine (14.3%) declared another nationality (Chinese, Italian, Haitian, ...) and one, two other nationalities. Thirty-three had a course on intercultural intervention, three had two courses, three had a few hours of workshop (all 39 represent 61.9%) and 24 (38.1%) had no prior training on this matter.

#### Study 3: Switzerland

With around 165,000 immigrants per year for a population equivalent to that of Quebec's (8,700,000), Switzerland's immigration rate is the highest of the three study contexts: 1.9% (Bartosik & Probst, 2022). Switzerland also receives an average of 25,000 asylum seekers a year (and 75,000 Ukrainians in 2022, with temporary status; Secrétariat D'état Aux Migrations, 2023). The MIPEX for Switzerland in 2019 was 50 (Solano & Huddleston, 2020c), placing it in the middle of the countries assessed, but below the leading Western and OECD countries. This score indicates that there are as many obstacles to integration as there are facilitators. It has not changed over the last 15 years, despite changes in the law concerning citizenship (which remains difficult to access) and slightly

greater support from the Confederation to the cantons (which are responsible for integration measures). According to Bolzman (Bolzman, 2001), the Swiss model is one of assimilationist, non-participatory integration: Migrants are seen mainly as temporary workers who do not need to be granted rights other than those of employment. This is in line with MIPEX's view that Switzerland's approach is one of temporary integration, making it comparable to France, but also one of the three least secure countries for migrants. An important feature is the absence of anti-discrimination legislation: Switzerland is the only European country without any such legislation. However, anti-discrimination articles have been introduced into other laws, and since 2022, these articles have been in force and entail certain institutional protective measures, particularly in access to employment (OECD, 2020). Recent research showed the reality of discrimination: One in three people report having been discriminated against on the grounds of nationality, skin color, religion or ethnic origin (Département Fédéral De L'intérieur, 2023). This discrimination is reflected in access to employment, where people with "foreign" names have to send in 30% more job applications to get an interview (Zschirnt & Fibbi, 2019).

Sixty-six students (87.9% women, N=58) from Switzerland answered the questionnaire. Twenty-five (37.9%) were in OT and 41 (62.7%) in SW, three did not mention their program. The students ranged in age from 19 to 42 years old, with a mean of 23.2 (SD = 4.1). Sixty-one (92.4%) declared Swiss nationality and 23 another one (Italian, French...). Twenty-five (37.9%) had a class on intercultural issues, whilst 41 (62.7%) did not and four (6.1%) did not supply an answer.

**Intercultural personality profiles**

The means, standard deviations and Cronbach alphas ( $\alpha$ ) of the MPQF's subscales are presented in Table 1. Table 2 presents the means, standard deviations and the analysis of variance on the internal variables (personality traits) of the four-cluster solution for each study.

*Study 1: France*

The ANOVA was significant for all five MPQF subscales, indicating that the classification into four clusters is relevant. Cluster 3 (31.6% of participants) obtained the highest scores on OP and empathy, plus a high score on SI (equivalent to Cluster 4) and medium to low scores on the last two dimensions. Cluster 4 (10.5% of participants) also scores high on ES, FL and SI, but low on CE. The other two clusters stand out for their low scores. Cluster 2 (37.1% of participants) had the lowest scores of the sample on SI, ES and FL (but statistically equivalent to Clusters 1 and 3), while Cluster 1 (20.7% of participants) had the lowest scores on OP and CE (equivalent to Cluster 4).

*Study 2: Quebec*

The ANOVA was significant for all five MPQF subscales, indicating that the classification into four clusters was relevant. The third cluster (42.1% of participants) presented high scores on all dimensions. It stood out from the other clusters, in particular Cluster 4 (17.2% of participants), which also obtained fairly high scores on all dimensions, through the OP and CE: Scores on these two scales

**Table 2**  
Differentiation of intercultural personality profiles on internal variables for each study.

	Cluster 1		Cluster 2		Cluster 3		Cluster 4		Sig.
	M	SD	M	SD	M	SD	M	SD	
<i>France</i>	(n=55)		(n=102)		(n=87)		(n=29)		
OP	2.73 <sup>a</sup>	0.49	3.55 <sup>b</sup>	0.46	3.85 <sup>c</sup>	0.52	3.75 <sup>bc</sup>	0.38	F(3, 272)=64.65**
SI	3.32 <sup>a</sup>	0.47	2.86 <sup>b</sup>	0.41	3.77 <sup>c</sup>	0.38	3.76 <sup>c</sup>	0.33	F(3, 272)=84.87**
CE	3.70 <sup>a</sup>	0.40	4.06 <sup>b</sup>	0.33	4.33 <sup>c</sup>	0.26	3.74 <sup>a</sup>	0.24	F(3, 187.94)=56.36**
ES	2.88 <sup>a</sup>	0.59	2.48 <sup>b</sup>	0.56	3.27 <sup>c</sup>	0.64	3.70 <sup>d</sup>	0.42	F(3, 272)=47.89**
FL	3.04 <sup>a</sup>	0.61	2.99 <sup>a</sup>	0.59	3.19 <sup>a</sup>	0.63	3.99 <sup>b</sup>	0.42	F(3, 272)=22.90**
<i>Quebec</i>	(n=27)		(n=16)		(n=12)		(n=8)		
OP	4.41 <sup>c</sup>	0.32	2.73 <sup>b</sup>	0.33	3.82 <sup>a</sup>	0.36	3.57 <sup>c</sup>	0.36	F(3, 62) = 58.39**
SI	3.73 <sup>a</sup>	0.21	3.15 <sup>b</sup>	0.42	3.57 <sup>a</sup>	0.40	3.86 <sup>a</sup>	0.35	F(3, 62) = 8.69**
CE	4.47 <sup>b</sup>	0.32	3.92 <sup>a</sup>	0.44	4.28 <sup>ab</sup>	0.37	4.20 <sup>ab</sup>	0.31	F(3, 62) = 5.43**
ES	3.01 <sup>a</sup>	0.69	2.55 <sup>b</sup>	0.30	3.06 <sup>a</sup>	0.36	3.45 <sup>a</sup>	0.39	F(3, 26.38) = 7.52**
FL	3.51 <sup>b</sup>	0.33	2.61 <sup>a</sup>	0.32	2.75 <sup>a</sup>	0.37	3.86 <sup>c</sup>	0.24	F(3, 62) = 8.89**
<i>Switzerland</i>	(n=15)		(n=19)		(n=16)		(n=16)		
OP	3.26 <sup>a</sup>	0.59	3.56 <sup>a</sup>	0.51	3.65 <sup>a</sup>	0.43	4.13 <sup>b</sup>	0.32	F(3, 67) = 9.95**
SI	3.67 <sup>b</sup>	0.32	3.00 <sup>a</sup>	0.35	3.65 <sup>b</sup>	0.41	3.73 <sup>b</sup>	0.50	F(3, 67) = 11.37**
CE	3.60 <sup>a</sup>	0.38	4.16 <sup>b</sup>	0.35	4.03 <sup>b</sup>	0.31	4.24 <sup>b</sup>	0.34	F(3, 67) = 11.02**
ES	2.75 <sup>a</sup>	0.30	2.88 <sup>a</sup>	0.64	3.49 <sup>b</sup>	0.35	2.80 <sup>a</sup>	0.64	F(3, 47.35) = 8.06**
FL	3.21 <sup>a</sup>	0.55	2.92 <sup>a</sup>	0.53	3.80 <sup>b</sup>	0.31	3.29 <sup>a</sup>	0.64	F(3, 67) = 8.82**

\*p<.05,

\*\*p<.01;

a, b, c, d represent significant differences at p<.05, using Tukey or Games-Howell post-hoc

were the highest in the sample. Cluster 4 was dominated by SI and ES. The second cluster (21.9% of participants) was the opposite of the third, with all scores low; SI, ES and FL had the lowest scores in the sample. The other two traits were also very low, but remained statistically equivalent to those of Cluster 1. Cluster 1 (18.8% of participants) stood out for its medium (SI, FL) to low (OP, CE and ES) scores. None of these scores differed to the point of being unique (the highest or lowest in the sample).

*Study 3: Switzerland*

The ANOVAs were significant for each of the five MPQF subscales, indicating that the classification into four clusters was relevant. Clusters 3 (28.8% of participants) and 4 (24.2% of participants) were distinguished by high scores, while the opposite was true for Clusters 1 (22.7% of participants) and 2 (24.2% of participants). Cluster 3 had the highest ES and FL scores in the sample. Cluster 4 had the highest OP score in the sample. Cluster 2 stood out for SI, which was the lowest, and Cluster 1 for CE.

*Intercultural personality profiles analysis synthesis*

Table 3 summarizes the cluster analysis results for the internal variables (personality traits).

*Acculturation orientation, attachment, and sociodemographics*

The means, standard deviations and Cronbach alphas ( $\alpha$ ) of the HCAS and R-AAS's subscales are presented in Table 4 for all studies.

*Study 1: France*

The means and standard deviations of each subscale are presented in Table 4. Table 5 presents the ANOVAs of the interactions between the external variables (HCAS and R-AAS), the socio-demographic variables and the resulting clusters. Clusters are presented in the same order as in Tables 1–3 for ease of reading and comparison.

The ANOVAs on the EXC and TRA were significant. ANOVAs on the three attachment subscales were also significant. Cluster 3 was distinguished from the other clusters by the lowest score on the EXC and the highest on the TRA (equivalent to Cluster 4). The dependence score was also the highest for this cluster, accompanied by a low anxiety score. Clusters 1 and 4 score were highest on EXC, but differed on TRA, which was high for Cluster 4 and low for Cluster 1. These two clusters scored low on anxiety (identical to Cluster 3). They differed on closeness, which was highest in the sample for Cluster 4 and average for Cluster 1.

Participants in Cluster 2 were on average significantly older than those in Clusters 1 and 3.

*Study 2: Quebec*

The means and standard deviations of each subscale are presented in Table 4. Table 6 presents the ANOVAs of the interactions between the external variables (HCAS and R-AAS), the socio-demographic variables and the resulting clusters. Clusters are presented in the same order as in Tables 1–3 for ease of reading and comparison.

Only the ANOVA on EXC was significant. Post hoc tests showed that there was a significant difference between Clusters 1 and 2 on this acculturation orientation. Participants in Cluster 2 had the highest score, and those in Cluster 1 the lowest. Cluster 2 also stood out for having the highest anxiety score, the only subscale for which the ANOVA was significant. The lowest score on this subscale, and significantly different from that of Cluster 2, characterized Cluster 4.

No socio-demographic variable differentiated the clusters.

*Study 3: Switzerland*

The means and standard deviations of each subscale are presented in Table 4. Table 7 presents the ANOVAs of the interactions between the external variables (HCAS and R-AAS), the socio-demographic variables and the resulting clusters. Clusters are presented in the same order as in Tables 1–3 for ease of reading and comparison.

There were no significant findings for the ANOVAs on acculturation orientations, and only the anxiety subscale was significant for

**Table 3**

Characteristics of the four clusters for each sample and name of the corresponding intercultural personality profile.

Profile		Personality trait				
Cluster number	Name	OP	CE	ES	SI	FL
3	Considerate	↑	(†)			
4	Adaptive			↑	(†)	(†)
2	Maladaptive			(↓)	↓	(↓)
1	Reticent	(↓)	↓			

Note: † indicates a high score, when in parenthesis indicates only 2/3 samples obtained one; ↓ indicates a low score, when in parenthesis indicates only 2/3 samples obtained one.

**Table 4**  
HCAS and R-AAS's subscales means, standard deviations and Cronbach alphas for each study.

Questionnaire Subscales	France			Quebec			Switzerland		
	M	SD	α	M	SD	α	M	SD	α
<i>HCAS</i>									
INT	5.00	1.07	.78	4.40	1.29	.84	5.01	1.15	.85
TRA	3.78	1.46	.89	3.67	1.46	.93	3.66	1.43	.90
IND	5.41	1.34	.84	5.02	1.47	.85	4.66	1.52	.84
SEG	3.44	1.41	.87	3.54	1.63	.89	4.15	1.63	.67
ASM	1.52	0.70	.74	1.38	0.53	.43	1.56	0.71	.65
EXC	1.96	1.29	.90	1.29	0.53	.70	1.64	1.05	.73
<i>R-AAS</i>									
Dependence	3.27	.77	.78	3.86	0.76	.80	3.68	0.67	.73
Closeness	3.81	.77	.78	3.96	0.66	.76	4.06	0.68	.75
Anxiety	2.79	.85	.80	2.28	0.84	.81	2.28	0.74	.76

**Table 5**  
Comparison of profiles on external and socio-demographic variables (France).

Question. Subscales	Cluster 1		Cluster 2		Cluster 3		Cluster 4		Sig.
	M	SD	M	SD	M	SD	M	SD	
<i>HCAS</i>									
INT	4.61	1.40	4.43	1.31	4.79	1.30	4.46	1.45	F(3, 266)=1.23
TRA	2.66 <sup>a</sup>	1.53	2.95 <sup>ab</sup>	1.68	3.74 <sup>b</sup>	1.74	3.75 <sup>b</sup>	1.58	F(3, 265)=6.64**
IND	4.72	1.46	5.24	1.59	5.39	1.56	5.22	1.47	F(3, 266)=2.19
SEG	4.54	1.50	4.26	1.66	4.08	1.89	3.63	1.93	F(3, 154.49)=1.82
ASM	1.72	0.84	1.57	0.83	1.50	0.73	1.38	0.60	F(3, 269)=1.46
EXC	2.72 <sup>a</sup>	1.63	2.32 <sup>ab</sup>	1.71	1.58 <sup>b</sup>	1.10	2.66 <sup>a</sup>	2.10	F(3, 111.03)=6.08**
<i>R-AAS</i>									
Dependen.	3.30 <sup>ab</sup>	0.79	3.01 <sup>a</sup>	0.65	3.51 <sup>b</sup>	0.79	3.37 <sup>ab</sup>	0.83	F(3, 271)=7.45**
Closeness	3.84 <sup>b</sup>	0.81	3.44 <sup>a</sup>	0.74	4.09 <sup>bc</sup>	0.65	4.23 <sup>c</sup>	0.57	F(3, 203.47)=18.16**
Anxiety	2.63 <sup>a</sup>	0.76	3.23 <sup>b</sup>	0.78	2.45 <sup>a</sup>	0.76	2.54 <sup>a</sup>	0.90	F(3, 271)=17.77**
Sex <sup>1</sup>	1.11	0.31	1.17	0.38	1.11	0.31	1.21	0.41	F(3, 139.42)=1.02
Age	21.44 <sup>b</sup>	4.84	24.6 <sup>a</sup>	7.53	22.17 <sup>b</sup>	4.31	23.4 <sup>ab</sup>	7.67	F(3, 119.42)=3.57*
Nation. <sup>2</sup>	1.08	0.29	1.07	0.25	1.05	0.27	1.07	0.26	F(3, 271)=0.31

Note: <sup>1</sup>1=women, 2=men; <sup>2</sup>1=French, 2=other

\* $p < .05$ ,

\*\* $p < .01$ ;

a, b, c, d represent significant differences at  $p < .05$ , using Tukey or Games-Howell post-hoc.

**Table 6**  
Comparison of profiles on external and socio-demographic variables (Quebec).

Questionnaire Subscales	Cluster 1		Cluster 2		Cluster 3		Cluster 4		Sig.
	M	SD	M	SD	M	SD	M	SD	
<i>HCAS</i>									
INT	5.06	1.47	4.42	1.10	4.42	1.42	4.33	1.49	F(3, 59) = 0.70
TRA	3.85	1.62	3.52	1.42	4.09	1.59	3.76	1.20	F(3, 59) = 0.48
IND	5.12	1.43	4.71	1.81	5.09	1.21	5.62	0.97	F(3, 60) = 0.71
SEG	3.21	2.04	3.56	1.57	3.91	1.64	2.67	0.72	F(3, 60) = 1.29
ASM	1.18	0.40	1.60	0.61	1.31	0.49	1.43	0.42	F(3, 60) = 1.82
EXC	1.00 <sup>b</sup>	0.00	1.63 <sup>a</sup>	0.68	1.32 <sup>ab</sup>	0.68	1.11 <sup>ab</sup>	0.27	F(3, 39.61) = 4.25*
<i>R-AAS</i>									
Dependence	3.65	0.62	3.42	0.90	3.91	0.66	3.90	0.51	F(3, 61) = 1.83
Closeness	3.80	0.60	3.68	0.62	3.94	0.64	4.15	0.65	F(3, 61) = 1.14
Anxiety	2.32 <sup>ab</sup>	0.66	2.83 <sup>a</sup>	0.91	2.20 <sup>ab</sup>	0.69	1.98 <sup>b</sup>	0.62	F(3, 61) = 3.34*
Sex <sup>1</sup>	1.19	0.40	1.00	0.00	1.07	0.26	1.00	0.00	F(3, 59) = 1.44
Age	25.13	8.23	23.92	3.26	25.74	6.09	27.13	7.08	F(3, 59) = 0.44
Nation. <sup>2</sup>	1.00	0.00	1.17	0.39	1.26	0.45	1.25	0.46	F(3, 59) = 1.71

Note: <sup>1</sup>1=women, 2=men; <sup>2</sup>1=Quebecois/Canadian, 2=other

\* $p < .05$ ,

\*\* $p < .01$ ;

a, b, c represent significant differences at  $p < .05$ , using Tukey or Games-Howell post-hoc.

the attachment measure. Cluster 3 obtained the lowest score for this subscale and Cluster 2 the highest.

Four men (out of eight) were associated with Cluster 3, which explained the significant difference between this cluster and the others on this variable.

**Discussion**

The aim of the study was to explore intercultural personality profiles among SW and OT students prior to their entry into their professions, that is in the weeks prior to their entry into their integration internship. We also explored the links between the profiles, host acculturation orientations and attachment dimensions and we did it in three national contexts: France, Quebec and French-speaking Switzerland.

We postulated the existence of profiles that facilitate interaction in an intercultural context to a greater or lesser extent, and this is indeed what we observe. The analyzes reveal four intercultural personality profiles, summarized in Table 3. Remarkably, all four profiles appear in all three contexts, which tends to demonstrate that not only is the analysis of the personality traits needed to evolve in an intercultural context relevant in itself, but that such an analysis leads to consistent results that open the way to theoretical developments (a possible typology of intercultural personalities or cultural competence profiles) or practical developments (adaptations to intercultural training, depending on the competence profile of the target audience).

Two of these profiles present a facilitating configuration for intercultural relations, while the other two seem on the contrary less favorable. The first profile is characterized by a high average OP. A high CE score is also associated with it for Quebec and France. This is why it has been named *considerate*: open and (sometimes) attentive to others. The second is distinguished mainly by high ES. To this trait can be added SI (Quebec and France) or FL (France and Switzerland). This profile is called *adaptive* in that the ES, as well as the other two traits, are recognized for their ability to handle new and stressful situations (Hofhuis et al., 2020a; HofhuisHofhuis et al., 2020b; Van Der Zee & van Oudenhoven, 2001). The third profile shows low scores on all personality traits. This is particularly true for Quebec, where scores are the lowest on all five traits. That said, this profile is characterized above all by low SI scores for all three contexts, and low ES and FL scores for both Quebec and France, making it almost the inverse of the second profile. Such a profile implies that participants who endorse it are less likely to be at ease in intercultural situations, so it has been named *maladaptive*. The last profile is almost the opposite of the first, since it is defined by low scores on CE and OP (Quebec and France). Participants in this profile show a certain reserve when it comes to intercultural encounters, hence its name: *reticent*.

Previous studies employing the MPQ showed that some of the personality traits correlate consistently. This is the case for OP and CE, or ES and SI (Van Der Zee & Van Oudenhoven, 2001; Faniko et al., 2015). Similarly, ES is frequently statistically independent of OP and CE (Van Der Zee & Van Oudenhoven, 2000; Van Der Zee & Van Oudenhoven, 2001; Faniko et al., 2015). Yet it is precisely profiles reflecting these earlier findings that the analyses in this study show, reinforcing their validity in our view.

In terms of acculturation orientations, EXC stands out for the French and Quebec samples, and TRA for the French students. The Swiss sample and the other orientations show no significant results in relation to the profiles. EXC behaves particularly well in the French sample: Results are high and significant for the reticent and adaptive profile, indicating an endorsement of this orientation. The opposite is true for the considerate profile. The latter result is consistent, since this is an orientation of rejection that is not endorsed by the most open and empathetic participants. The endorsement of this orientation by the reticent profile is also consistent, since it is a profile with a low level of empathy and openness, the opposite of the considerate profile. So far, the results indicate that the considerate profile is unfavorable to rejection orientations and that one of the more reserved profiles with regard to interactions in a context of diversity, reticent, is more favorable to this same orientation. These results are also consistent with what the literature has shown: the

**Table 7**  
Comparison of profiles on external and socio-demographic variables (Switzerland).

Question. Subscales	Cluster 1		Cluster 2		Cluster 3		Cluster 4		Sig.
	M	SD	M	SD	M	SD	M	SD	
HCAS									
INT	4.66	1.18	5.47	1.06	4.84	1.13	5.07	1.16	F(3, 64) = 1.64
TRA	3.24	1.26	4.06	1.49	3.40	1.11	3.88	1.74	F(3, 63) = 1.18
IND	4.48	1.73	4.67	1.35	4.63	1.44	4.89	1.69	F(3, 64) = 0.18
SEG	3.58	1.44	4.85	1.91	4.15	1.45	4.17	1.66	F(3, 58) = 1.48
ASM	1.58	0.96	1.47	0.41	1.74	0.87	1.42	0.47	F(3, 41.63) = 0.63
EXC	1.62	0.78	1.63	1.20	1.82	0.99	1.48	1.20	F(3, 63) = 0.29
R-AAS									
Dependence	3.86	0.87	3.53	0.50	3.58	0.65	3.67	0.61	F(3, 64) = 0.80
Closeness	3.91	0.64	3.94	0.57	4.00	0.89	4.37	0.69	F(3, 62) = 1.54
Anxiety	2.49 <sup>ab</sup>	0.66	2.64 <sup>b</sup>	0.79	1.92 <sup>a</sup>	0.39	2.23 <sup>ab</sup>	0.87	F(3, 62) = 3.10*
Sex <sup>1</sup>	1.00 <sup>b</sup>	0.00	1.00 <sup>b</sup>	0.00	1.33 <sup>a</sup>	0.58	1.00 <sup>b</sup>	0.00	F(3, 25) = 3.74*
Age	23.00	3.67	21.75	1.71	24.67	3.79	23.00	2.45	F(3, 25) = .43
Nation. <sup>2</sup>	1.28	0.46	1.25	0.50	1.33	0.58	1.50	0.58	F(3, 25) = .25

Note: <sup>1</sup>1=women, 2=men; <sup>2</sup>1=Swiss, 2=other

\*p<.05,

\*\*p<.01;

a, b, c represent significant differences at p<.05, using Tukey or Games-Howell post-hoc.

endorsement of less migrant-friendly orientations goes with negative attitudes towards diversity (Bourhis et al., 2008) and a propensity to discriminate (Wagner et al., 2013).

Most surprising is the endorsement of EXC by the adaptive profile. EXC is the most radical of the rejection orientations, since it implies the wish to deny access to the community to members who are not part of it. Its endorsement by people with personality traits recognized as favorable for dealing effectively with new and stressful situations (Hofhuis et al., 2020a; Hofhuis/Hofhuis et al., 2020b) is particularly troubling. It is also the least endorsed profile in this sample (10.5% of participants). This result could indicate the emergence, due to the French socio-political context (rise of extreme right-wing values, (Statista Research Department, 2024), of a minority who, even if they are able to behave appropriately in a context of diversity, do not wish to do so and will probably not make the effort to adapt to a migrant clientele. In a way, this would be the development of what has been observed at the SEG level over two decades in France (Barrette et al., 2004; Wagner et al., 2013): The increase in an ambivalent attitude towards migrants, continues, for a small part of the population, with the outright exclusion of migrants and may also be associated with the reported discriminatory behaviors (McAvay & Safi, 2023; Safi, 2023).

The attachment results reveal a similar pattern across the three samples, showing high dependence and closeness with medium-high anxiety. This indicates that participants are weakened in terms of attachment anxiety (anxiety in relationships, such as fear of being abandoned, rejected or unloved). It is likely due to their transitional phase as they prepare to enter a professional role. This finding aligns with attachment theory, which indicates that transition periods can reorganize attachment patterns, even with a generally stable attachment over the lifespan (Ainsworth, 1985; Brisset, 2010).

Regarding links with intercultural personality profiles, only the results for the anxiety dimension of adult attachment are significant for all three samples, while the dependence dimension is significant for the Quebec and French samples, and the proximity dimension is significant only for the French sample. The adaptive profile has the particularity of being significantly low in anxiety for all three contexts, whereas this score is high for the maladaptive profile. The maladaptive profile is also associated with low scores on the dependency dimensions (Quebec and France). The considerate profile is associated with low scores on the anxiety dimension, but only for Quebec and France. It is recognized that a high anxiety score is associated with insecure attachment styles and implies difficulties in bonding, particularly in unusual or stressful situations (Gillath et al., 2005; Mikulincer and Shaver, 2001). In this sense, these results, even if incomplete, show a consistent trend, as do the results on acculturation orientations: Profiles competent in intercultural relations show less anxiety in their relations in general, and less competent profiles are associated with a high level of this same anxiety.

From the point of view of socio-demographic variables, significant results are observed only for France and Switzerland. French participants of the maladaptive profile are the oldest and the considerate cluster gathers more men than the other clusters. On the basis of these data alone, it is difficult to affirm or deny that life experiences, or sex has any connection with intercultural personality profiles. Indeed, these results, unlike the others, are specific to only one of the three samples. More research is needed before making any assertions. On the other hand, it is remarkable that nationality is not associated with any of the profiles.

The four profiles show varied competencies in terms of intervention in a context of diversity. Let's remember that the population under study is that of SW and OT students about to enter their professions, i.e., about to take responsibility (under supervision) for vulnerable people. What our study shows is that a significant proportion of this population - 58.4% in France (to which we can perhaps add the 10.5% of the adaptive profile), 46.9% in Switzerland and 40.7% in Quebec - presents the least competent profiles for intervening in diversity situations, and some of them show marked reluctance towards contact with diversity. To our knowledge it is the first time such proportion have been revealed. According to the IAM, participants with these profiles could develop problematic or even conflictual relationships with members of cultural minorities (migrants) who could be their co-workers or users of the institution in which they will be practicing. Again, according to the IAM, the differences in results between contexts can be explained in part by the national integration policies in place: (somewhat) pluralist for Quebec, and assimilationist for France and Switzerland (according to the categorization proposed by Bourhis et al. (1997), confirmed by MIPLEX scores and the typology of Bolzman (2001). In a society with a pluralist ideology, diversity will be recognized and valued, while requiring migrants to make efforts to adapt, particularly in the public sphere. In assimilationist societies, on the other hand, diversity will be perceived as a threat to be eliminated from the public and private spheres (Bourhis et al., 1997). However, two other fundamental questions remain: 1) Is the intercultural training offered in basic curricula sufficient? and 2) Can these (high) figures be reduced?

As far as the first question is concerned, the answer seems to be a clear "no". To the best of our knowledge, only one study conducted in Quebec provides a recent overview of intercultural training in SW and OT programs (Beaudoin-Julien et al., 2022). It shows that for both disciplines there is at least one course on intercultural issues per program. The majority of these courses are optional, lecture-based and deal little with the skills needed in a context of diversity, focusing more on theoretical content for SW, and a little more on skills for OT. This presence of courses in the programs may also partly explain the higher proportion of competent participants in Quebec, 61.9% of whom have taken a course on intercultural issues, by far the highest proportion of the three samples. The literature available for France and Switzerland on training for intercultural issues focuses mainly on teachers (Potvin, Dhume, Verhoeven, & Ogay, 2018). Although national guidelines do exist and encourage such training, the authors point to the oversight of major themes such as discrimination, major disparities in the application of these guidelines and, finally, the little space given to them in teaching. In the light of the results on having been taught about intercultural issues (2.9% for the French sample and 37.9% for the Swiss one), we hypothesize that the context for SW and OT presents similar characteristics, which would partly explain the higher rates of respondents in the low-skill profiles for France and Switzerland. Moreover, Gulfi (Gulfi, 2015), in concluding a study on SW's relationship to difference in French-speaking Switzerland, called for more training and, above all, experiential modalities.

In answer to the second question, it should be remembered that it has been shown that the personality traits measured by the MPQ, which serve as the basis for the profiles highlighted in this study, can evolve thanks to intercultural contacts and training (An & Chiang, 2015; Schartner, 2016). We can therefore hypothesize that the apprenticeship that constitutes this final internship is a crucial moment

for developing cultural competence. However, the mere fact of coming into contact with diversity (should this prove to be the case, because some internship environments have little or no exposure to diversities) in a first professional experience will certainly not be enough to transform reticent and maladapted future SWs and OTs into competent professionals without certain conditions being met. The first of these is that supervisors must themselves be sensitive to diversity issues and trained to deal with them. However, the few studies that address the subject of supervision in a diversity context (in psychology and in the USA) showed instead that supervisors avoid the subject and are not trained (Constantine, 1997; Duan & Roelke, 2001; Ladany, 2014). Again, in the absence of data for SW and OT in the national contexts studied, we hypothesize that their reality is similar.

### Limitations and future research

Some Cronbach's alphas fall below the acceptable threshold of .7. They are considered unreliable for ASM in Quebec (<.5) and questionable for OP, ASM and SEG in Switzerland (.6 <  $\alpha$  < .7). This is one of the recognized problems of acculturation scales that use the ipsative form (Rudmin, 2009), which is the case for the HCAS. This limitation goes hand in hand with the small number of significant results obtained for Quebec and Switzerland on acculturation orientation scores. In addition to the problem of reliability, the number of participants could explain this modest harvest of results, since for the French sample, whose *n* is much higher, the significant results are more numerous. However, the recruitment pool for this population in French-speaking Switzerland and Quebec is relatively limited compared to France. The total number of SW and OT students in their final year is around 800 both in Quebec and French-speaking Switzerland. Given this reality, we feel we have achieved a reasonable recruitment rate. This study remains original precisely because it focuses on future practitioners and not on a general student population.

The use of another questionnaire that would more directly measure participants' positioning towards cultural diversity would probably be more precise, given the problems raised by acculturation orientation measures. The HCAS did not target any particular group; The term used was immigrant without further clarification. This may have had a mitigating effect on the results, since we know that results vary according to whether groups are valued or not (Montreuil and Bourhis, 2004; Barrette et al., 2004). That said, our results remain consistent from one sample to the next and open promising research prospects.

Another limitation is that we have no precise measures of participants' training other than exposure to teaching on intercultural issues. The very structure of training courses (e.g., number of hours, type of pedagogy, inclusion of contact with environments...) could have effects on competence when entering the profession. Future studies could include more specific questions on training trajectories.

Beyond its limitations, this study opens several avenues for further research. First, it would be theoretically interesting to explore whether the profiles are found in other national/regional contexts and professions, such as justice or education. Longitudinal research could observe profile changes and associated factors, contributing to a model of cultural competence development. Additionally, testing training courses that could modify these profiles and assessing their impact on practice, not just on personality traits, would enhance intercultural pedagogical knowledge. Finally, an assessment of supervision needs and testing supervision methods that encourage profile evolution would be valuable.

### Conclusion

This study shows the existence of varied intercultural personality profiles at the crucial moment of transition from school benches to practice for future SWs and OTs in France, Quebec and Switzerland. The results indicate that between 40% and 60% of students are not very competent to work or intervene in an intercultural context at this point in their career, some of them even being particularly reticent to intercultural contacts and could develop problematic or even conflictual relationships. Despite the efforts made over the last few decades to integrate intercultural teaching, it is still not widely disseminated, and students enter in profession with little or no preparation for the diverse reality of societies, with the possible consequences of awkwardness, discrimination (more or less conscious) and poor quality care/services. Given that it is possible to change this for the better, as research shows, it seems important, if not urgent, to consider making such teaching compulsory in programs leading to the helping professions. From a research point of view, it would be useful to document these initiatives and verify their effects over the short, medium and long term.

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### CRedit authorship contribution statement

**Gabriel Bernard:** Formal analysis, Methodology, Writing – original draft, Writing – review & editing. **Yvan Leanza:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Methodology, Project administration, Supervision, Validation, Writing – original draft, Writing – review & editing. **Sylvie T treault:** Conceptualization, Writing – review & editing. **Nicolas K hne:** Conceptualization, Writing – review & editing. **Alida Gulfi:** Conceptualization, Writing – review & editing. **Raymonde Gagnon:** Resources, Writing – review & editing. **Dominique Giroux:** Writing – review & editing, Resources. **St phanie Arsenaault:** Conceptualization, Writing – review & editing, Resources. **Ahisha Jones-Lavall e:** Data curation, Writing – review & editing. **Maya Yamolsky:** Formal analysis, Writing – review & editing. **Camille Brisset:** Conceptualization, Formal analysis, Methodology, Writing –

review & editing. **Valérie Demers:** Formal analysis, Methodology, Project administration, Writing – review & editing.

## Declaration of Competing Interest

None.

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