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# International mobility fo studies and work : career paths and improvement of competencies

Valentina Dolce

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Valentina Dolce. International mobility fo studies and work : career paths and improvement of competencies. Psychology. Université de Haute Alsace - Mulhouse; Università degli studi (Turin, Italie). Dipartimento di psicologia, 2019. English. NNT : 2019MULH4204 . tel-03777828

**HAL Id: tel-03777828**

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**UNIVERSITY OF TURIN AND UNIVERSITY OF HAUTE-ALSACE**

DEPARTMENT OF PSYCHOLOGY AND INTERUNIVERSITY LABORATORY OF  
EDUCATIONAL SCIENCES AND COMMUNICATION

DOCTORAL SCHOOL

PSYCHOLOGICAL, ANTHROPOLOGICAL, EDUCATIONAL SCIENCES (ITALY)

HUMAN AND SOCIAL SCIENCES (FRANCE)

XXXII CYCLE

PhD COTUTELLE

ENGLISH TITLE OF THESIS

**International mobility for studies and work: career paths and improvement of  
competencies**

FRENCH TITLE OF THESIS

**Mobilité internationale pour les études et le travail: trajectoires de carrière et  
acquisition des compétences**

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# INTRODUCTION

## International mobility

*“Je voyage pour connaître ma géographie”* Walter Benjamin

In every epoch, the journey has taken a symbolic meaning, inspiring many philosophers, poets and writers. The value of discovery, the encounter with the other, the self-seeking, the curiosity about the unknown, the personal growth are often classical themes associated with the journey and sources of inspiration for writers and poets.

As well as definitions in literary works, the journey can be defined, adopting a geographical definition, as the spatial act to move from place to another (De Vecchis, 2012). Nowadays, geographic mobility occurs for various reasons: tourism, migration, work, study and so forth. At present, we are seeing a constant increasing of these types of mobility, due to globalization, technology advancements, improvement of transports quality and political agreements who have facilitated the movement across borders.

The present dissertation focuses on two types of mobility: for studies and for work. Mobility for studies are mainly promoted in higher education; many are the international programs to favorite the student exchanges around world such as: the University Mobility in Asia and the Pacific program (UMAP), the International Mobility Programs in Canada (IMPs), the European Region Action Scheme for the Mobility of University Students (ERASMUS) (Crossman & Clarke, 2010; Marcotte, Desroches & Poupart, 2007; Teichler & Jahr, 2001). In details, Erasmus programs was launched in 1987, involving 11 European countries in the first year (1987/88). The participation is, in the following years, increased exponentially: according to the last annual Report of the European Commission (2018) 800,000 people (students and personal staff) joined the Erasmus program. Promotion of values such as respect for human rights, equality, democracy, human dignity, freedom, reinforcing of soft skills and intercultural competencies (Bryla, 2015; Volet & Ang, 2012) are all expected outcomes of the Erasmus program.

The mobility for work is the second type of international mobility to which this dissertation pays attention. This kind of mobility is mainly due to globalization, a phenomenon defined as “the flow of technology, economy, knowledge, people, values, [and] ideas . . . across borders” (Knight & de Wit, 1997, p. 6). Nowadays, many organizations have production or sales sites abroad and employees are often part of multicultural team (Bartel-Radic, 2004). Consequently, employees and managers are often involved in various forms of international assignments (IAs, Desmarais, Ghislieri, & Wodociag, 2012; Pate & Scullion, 2018; Shaffer, Kraimer, Chen, & Bolino, 2012). As suggested

by Shaffer and colleagues (2012), nowadays we assisted to a differentiation of forms IAs; in order to define them the authors coined the term *global work experience*; they were differentiated on based of last and number of destinations. In details, international business trips represent the briefer form of global work experiences: international business traveler, also known as frequent flier or globetrotter, stays abroad from a few days per week to three weeks (Shaffer et al., 2012; Wickman & Vecchi, 2009).

The flexible expatriation is the second shorter form of global work experience; it can last from one to two months (Shaffer et al., 2012). By comparison, the short-term assignees stay abroad from three to twelve months and are directed to a small range of destinations (Shaffer et al., 2012). Contrary to previous cases, the corporate expatriation can be defined as a long-term assignment abroad, at least one year of stay in another country. Expatriates often, but not always, relocate with all family and personal lives (Shaffer et al., 2012; Mayerhofer et al., 2004). Finally, the self-initiated expatriations (SIEs) cannot be ranked according criteria of length of experience. Indeed, the self-expatriation can vary from short term to years (Tharenou, 2010). These workers voluntary leave their home country to look for new career opportunities and advancement (Cerdin & Selmer, 2014; Tharenou, 2010).

Another form of work mobility not covered by the taxonomy by Shaffer and colleagues (2012) is the cross-border commuting (Bertand, 2004; Wodociag, Dolce, & Molino, 2019), which requires to workers to operate in one country but reside in other one to which they return daily or at least once a week (EU/law No. 1408/71).

One of the objectives of the present dissertation is to investigate the association between the international mobility and the development of intercultural competencies that in turn represent one of the expected outcomes of international programs in Higher Education (Bryla, 2015; Volet & Ang, 2012). According to Deardoff's definition "intercultural competence is the ability to communicate effectively and appropriately in intercultural situation based on one's intercultural knowledge, skills and attitudes" (Deardoff, 2004, p. 194). These competencies seem to be useful and required by labor market (Johnson, Lenartowic, & Apud 2006), indeed "sending the right individual, meaning an employee who can be effective and successful in a foreign country, is critical" (Crowne, 2008, p. 393).

In details, this dissertation explores a specific type of intercultural competence, namely cultural intelligence (CQ) (Ang et al., 2007). CQ is a specific psychological construct; Ang and colleagues developed a scale which coexists with other measures such as: intercultural development inventory (IDI), cross-cultural sensitivity scale (CCSS), multicultural personality traits (MPQ), cross-cultural adaptability (CCAI), intercultural sensitivity scale (ISS), intercultural adjustment potential scale (ICAPS), intercultural communication competence (ICC), IBA, intercultural sensitivity inventory

(Matsumoto & Hwang, 2013). CQS, ICAPS and MPQ are the most capable to assess cross-cultural competencies (Matsumoto & Hwang, 2013). Although its limits (Bücker, Furrer, & Lin, 2015), the choice to focus on CQ rather than on other scales, is justified by its psychometric properties, more adequate than those of others measures (Matsumoto & Hwang, 2013).

In particular, CQ is a multidimensional construct, and it consists of four dimensions: cognitive, metacognitive, motivational and behavioral (Ang et al., 2007). The cognitive dimension concerns the knowledge about social practices, economic rules, legal norms, conventions, present in other cultures (Brislín, Worthley, & McNab, 2006; Ng & Early, 2006; Ng et al. 2012). The metacognitive dimension concerns the capability to monitor and modify appropriately own mental models when interactions with people from different countries occur (Ang & Van Dyne, 2008; Early, Ang, & Tan, 2006; Ng et al. 2012). The motivational dimension reflects the desire to learn something and to act in another culture, forming friendships with people from different countries; it is a positive energy, which moves towards the discovery of new country and supports the intent to go abroad (Ang et al., 2007, Ang & Van Dyne, 2008; Early et al., 2006; Ng et al., 2012). Lastly, the use of appropriate verbal and non-verbal actions, language, tone, posture and facial expressions are the characteristics aspects of the behavioral dimension (Ang & Van Dyne, 2008; Ang et al., 2007; Ng et al., 2012).

Based on the relevance of this topic, this dissertation attempts to shed more light on CQ, considering in particular the Erasmus program mobility. To further explore this construct, a study was carried out to explore the value of at-home instructions, considering the bilingual education. Finally, the career paths of a sample of top managers were investigated, stressing, on the one hand, the career consequences in terms of advancements and skills empowerment and, on the other hand, the challenges related to IAs.

This thesis is structured in four chapters matched by an introduction and a conclusion. Four empirical studies are presented in the four chapters respectively. Each chapter has the following structure: introduction, literature review, method, results, discussion, conclusion and practical implications.

*Chapter 1* presents a longitudinal study aimed to investigate the impact of Erasmus program on the development of CQ, transversal competencies and resilience with a sample of Italian Erasmus students. Specifically, the following statistical analysis were performed by SPSS25 and Mplus7: descriptive analysis, internal consistency (Cronbach's Alpha coefficient), correlations (Person's r coefficient), repeated Measures ANOVA, and invariance measurements. Furthermore, a content analysis was applied to explore open fields in which was asked to tell a surprising intercultural

experience (positive or negative) from the Erasmus stay. The findings allowed to better understand the “cross-cultural learning process”.

*Chapter 2* tries to gain more insight in CQ by investigating its antecedents. Specifically, with a cross-sectional design, this study aims to explore the role of specific personal characteristics (resilience) and situational aspects of Erasmus program (length of experience, intercultural network) as antecedents of CQ.

*Chapter 3* focuses on a study conducted on a sample of high schoolers from bilingual and non-bilingual sectors. This study aimed to explore possible discrepancies in terms of cultural intelligence considering between high school students enrolled in bilingual sectors and their colleagues enrolled in non-bilingual sectors. This study deepened the role of some antecedents of CQ: resilience, scholastic self-efficacy, exposition to a multicultural environment during education.

*Chapter 4* presents a qualitative study aimed to explore challenges and consequences related to global work experiences of top managers employed in Italy, taking into consideration differences between women and men. The qualitative data was analyzed by Nvivo12.

Finally, in general conclusion part, limitations, future research, practical implications are discussed.

*The current dissertation has been written and carried out in Italy and in France with the supervision of Chiara Ghislieri and Loïc Chalmel. Especially the study presented in Chapter 3 was conducted as part of a project on bilingual education promoted by Strasbourg Rectorate. It was completely realized in France.*

*The first study has been conducted in collaboration with Eric Davoine who in parallel carried out another study with German Erasmus students.*

## CHAPTER 1

### **A longitudinal study with a sample of Italian Erasmus students: change in personal characteristics and competencies**

#### *Abstract:*

This study aims to investigate the relationships between Erasmus program experience and the increase of cultural intelligence (CQ), resilience and transversal skills. This study contributes to the understanding of “the cross-cultural learning process”, merging quantitative and qualitative data. The research involved 170 Erasmus students and 52 college students who have never participated to Erasmus program. These data were collected in two phases: for Erasmus students before departure and at re-entry and for control group with a time interval between the two administration of around 6 months. Findings showed significant increases of cognitive CQ, resilience and transversal skills for the Erasmus students’ sample, on contrary any significant change was found for the control group. Looking at ‘critical incident’ reports, qualitative data further clarify the role played by abroad experience on the cross-cultural learning process. This study provides evidences about the Erasmus program value and seems to confirm expectation elaborated by Bologna process 2020.

*Keywords:* cultural intelligence, resilience, transversal competencies, Erasmus program



## INTRODUCTION

In the last decades, organizations have been affected by an increasing internationalization and globalization of markets (Knight, 2004; Cazal, Davoine, Louart, & Chevalier, 2011). Therefore, organizations need employees able to work in different cultural contexts (Bartel-Radic, 2004; Early, 2006; Hermans, 2007; Ledwith & Seymour, 2001), as well as leaders able to manage the complexity of diverse multinational contexts and multicultural team projects (Caligiuri & Tarique, 2012, Crossman & Clarke, 2010; Chevrier & Segal 2011). Moreover, employees are often involved in different international assignments (IAs), such as global business trips, flex expatriate work, short-assignments, corporate expatriation and self-expatriation (Desmarais, Ghislieri, & Wodociag, 2012; Pate & Scullion, 2018; Shaffer, Kraimer, Chen, & Bolino 2012). Success or failure in international business seem to be related to the presence of intercultural competencies (Johnson, Lenartowic, & Apud 2006) and the choice of the right individual to involve in IAs is often critical (Crowne, 2008)

Therefore, the development of intercultural competencies has become a major challenge for organizations but also for universities and higher education institutions worldwide to enhance graduate employability (Amendola & Restaino, 2017; Crossman & Clarke, 2010). Internationalization in higher education has been promoted through different study abroad programs worldwide. In details, UMAP (University Mobility in Asia and the Pacific) was launched in Australia in the 1990s (Crossman & Clarke, 2010), IMPs (International Mobility Programs) in Canada include student exchanges, international study agreements and internships abroad (Marcotte, Desroches & Poupart, 2007). In Europe, one of the oldest and most important measures promoted by Union Europe is the ERASMUS (European Region Action Scheme for the Mobility of University Students) program, which was launched in 1987 (Teichler & Jahr, 2001).

According to the last annual Report of the European Commission (2018) 800,000 people (students and personal staff) joined the Erasmus program, which is significantly more than the 3.244 students from 11 countries in the first year 1987/88. Thanks to Erasmus programs, the possibilities to international mobility have been significantly improved within academic institutions (Nilsson, 2013). Study abroad programs, and the Erasmus program in particular, follow several goals: improving foreign language competences of students, stimulating their personal development, giving opportunities to learn from other institutions with different expertise, developing soft skills and social network, promoting international career mobility and enhancing the ability to look for a job in a foreign country (Turhan, 2016; Juvan & Lesjak, 2011; Crossman & Clarke, 2010; Marcotte et al., 2007; Parey & Waldinger, 2011).

The academic discussion on impact of this short international mobility program is still open (Holtbrügge & Engelhard, 2016; Roy, Newman, Ellenberg & Pyman, 2019; Valera, 2017): some scholars claim that international programs have a relevant impact on learning outcomes, others observe only marginal effect, others suggest to improve research design.

In line with recommendations by Roy and colleagues (2019), a pre- and post-test was adopted to study the impact of mobility program and a control group was included. In particular, this study aims to verify the development of CQ, resilience and some transversal competencies by the participation to Erasmus program. Furthermore, in line with Deardorff's considerations (2006) a qualitative analysis was combined with a quantitative one, deepening the cross-cultural learning process.

## **LITERATURE REVIEW**

### ***Intercultural competence***

As suggested by various researchers (Bryla, 2015), one of the antecedents of intercultural competence is the international experience. Bennett (1986) conceptualized the intercultural competence as a development process of intercultural sensitivity boosted by an active experimentation of the cultural differences (Spitzberg & Changnon, 2009). According to Development Model of Intercultural Sensitivity (DMIS) drawn up by Bennet (1986; 1993; 2004) six steps define the process of intercultural competence development: denial of difference, defence, minimization (these three steps are typical of ethnocentric phase), acceptance, adaptation, integration (these three steps are specific of ethnorelative phase). Intercultural competence corresponds to the ability to act and communicate effectively and appropriately in the cross-cultural situations (Deardorff, 2006); it is the ability to function effectively and manage different cultural situations (Earley & Ang, 2003).

Cultural intelligence (CQ) is a specific psychological construct, associated in the literature with the notions of cross-cultural competence or cross-cultural interaction competence (Bartel-Radic & Giannelloni, 2017; Spencer-Oatey & Franklin, 2009). Cultural intelligence was defined as the capability to function and manage in appropriately way in diverse cultural settings (Ang et al., 2007). People culturally intelligent are those capable to act, to communicate in an effective way in various cultural situations, to adjust their mental models, to enjoy the stay in whatever culture (Ng, Van Dyne & Ang, 2007). Starting from this definition Ang and colleagues developed the CQ scale (CQS), which continues to coexist with other measures of cross-cultural assessment (Matsumoto & Hwang, 2013).

The psychometric qualities of this scale justify the choice of its utilization; furthermore, this construct transcends cultural boundaries, indeed is related to the acquisition of cultural general capability applicable to whatever culture (Ng, Van Dyne, & Ang, 2012). Furthermore, various studies highlighted the key role played by cultural intelligence for current labor market: Presbitero & Quita (2017) found that cultural intelligence moderated the relation between career adaptability and overseas career intention. Remhof and colleagues (2013) showed the mediational role of CQ between language skills as well as international experience and intention to work abroad. Nunes and colleagues (2017) conducted a study involving 217 expatriates living in Brazil; the authors revealed an indirect relation between cultural intelligence and expatriate's performance fully mediated by cross-cultural adaptation.

In details, CQ is a multidimensional construct: it consists of four different dimensions: cognitive, metacognitive, motivational, and behavioral (Ang et al., 2007; Ng et al., 2012).

Firstly, the cognitive dimension refers to knowledge about legal norms, conventions, and awareness of social practices, economic rules present in other cultures acquired from education and personal experiences. People with high level of cognitive CQ are able to gather similarity and differences across countries also in terms of value systems (Brislín, Worthley, & McNab, 2006; Ng & Early, 2006; Ng et al. 2012).

Secondly, the metacognitive dimension is related to the awareness of mental processes used to move in culturally diverse settings. High level of metacognitive CQ allows modifying appropriately the mental models and the interaction strategies considering different cultural norms and assumptions that they have acquired. Metacognitive CQ reflects the ability to have acquired and understood cultural knowledge, as well as cultural awareness of appropriate behaviors and interpersonal interactions (Ang et al., 2007; Ang & Van Dyne, 2008; Early, Ang, & Tan, 2006; Ng et al. 2012).

Thirdly, motivational dimension reflects the desire to learn something and to act in a different culture making friends with people from different countries. This dimension may be seen as an energy that leads toward the knowledge about something that is culturally different from us, based on high level of self-efficacy in cross-cultural competence (Ang et al., 2007, Bandura, 2002; Ng et al., 2012).

Finally, the behavioral dimension concerns the use of appropriate verbal and non-verbal actions, language, tone, posture and facial expressions in order to act in a different cultural setting (Ang et al., 2007; Ng et al., 2012).

As reported in Roy and colleagues' meta-analysis (2019) as well as in Varela's one (2017), Varela and Gatlin-Watts' longitudinal study (2014) found that the participation to short mobility student programs contribute to increase the metacognitive and the cognitive dimensions, but not the motivational and the behavioral ones. Other studies investigated the relation with all dimensions of

CQ (Eisenberg et al., 2013; Holtbrügge and Engelhard, 2016) and others confirmed the positive relation between international mobility and construct close to cultural intelligence such as cultural sensitivity (e.g., Anderson Lawton, Rexeisen, & Hubbard, 2006; Crossman & Clarke 2010; Lindsey, 2005; Stronkhorst. 2005; Williams, 2005; Ruddock & Turner, 2007) and cultural adaptability (e.g., Williams, 2005; Mapp, 2012).

In line with these previous results, we assumed that:

*Hypothesis 1a.* The level of CQ dimensions increases across time through the participation to Erasmus program.

*Hypothesis 1b.* The level of CQ dimensions do not change across time for the control group.

### ***Transversal skills and resilience***

As well as the intercultural competence, the transversal skills are also needed for handling the complexity related to the global economy, the advent of new technologies, the unstable conditions of labor market (Andrews & Higson, 2008; Moore & Morton, 2017; Robles, 2012). Transversal skills consist of a mix of abilities, ranging from operational to interpersonal (Bennett, Dunné, & Carré, 1999; Chamorro-Premuzic, Arteché, Bremner, Greven, Furnham, 2010; Ricchiardi & Emanuel, 2018). As suggested by Roy and colleagues' meta-analysis (2019) various studies were conducted to investigate the relation between the personal characteristics and the international mobility, but little research focused on transversal skills such as task orientation and organizational abilities.

Considering the positive relation between international mobility and some personal characteristics related to self-awareness (Van Hoof & Verbeeten, 2005) and self-efficacy (Green, Johansson, Rosser, Segrott, 2008; DeGraaf, Slagter, Larsen, & Ditta, 2008; Lindsey, 2005; Petersdotter, Niehoff, & Freund, 2017; Norris & Gillepsie, 2009), we assumed that also on transversal competencies:

*Hypothesis 2a.* The level of transversal competencies increases across time through the participation to Erasmus program

*Hypothesis 2b.* The level of transversal competencies does not change across time for the control group

Resilience is the capability to deal with stressful situations and it is related to the ability to transform the difficulties in growth opportunities (Campbell-Sills & Stein, 2007; Luthar, Cicchetti, & Becker, 2000; Masten, Best, & Garmezy, 1990). Similarly, to others personal characteristics (Green

et al., 2008, DeGraaf et al., 2008; Lindsey, 2005; Norris & Gillepsie, 2009; Petersdotter et al., 2017; Van Hoof & Verbeeten, 2005), also in this case we assumed that:

*Hypothesis 3a.* The level of resilience increases across time through the participation to Erasmus program.

*Hypothesis 3b.* The level of resilience does not change across time for the control group.

## METHOD

### *Participants and procedures*

A total of 222 Italian college students took part to this research, completing two questionnaires in two different phases. In particular, 170 were outgoing Erasmus students and 52 were college students who did not take part to Erasmus program. All students were enrolled at a university in northwest Italy. 78% of sample was represented by female. The more representation of females than males is in line with the those of students at University in which was conducted the study (CIRSDE data, 2019),

As regards Erasmus students, their average age was around 22 years ( $M = 22.35$ ,  $SD = 1.79$ ) and 77% of sample was represented by females. They came from different fields of study: 33% from law, political and economic sciences, 22% from the humanities, 15% from psychological, educational and anthropological sciences, 14% from life sciences, 5% from math and physics, 4% from historical studies, 3% from earth sciences, the remaining 4% from other study courses. As regards the country of sojourn, Spain was the destination chosen by the highest proportion of the participants (34%), followed by France (18%), Portugal (8%), Scandinavian countries (8%), Germany (7%), Poland (7%), United Kingdom (5%), Greece (2%), Switzerland (2%), Hungary (2%) and other countries 7%. Students spent on average around 6 months abroad ( $M=6.16$ ,  $SD=2.04$ ).

As regards the control group ( $n=52$ ), their age was around 23 years ( $M = 22.08$ ,  $SD = 2.27$ ) and females represented 81% of total subsample. They came from the following fields of study: 15% from the humanities, 17% from psychological, educational and anthropological sciences, 15% from life sciences, 6% from law, political and economic sciences, 4% from math and physics, 3% from historical studies, 4% from earth sciences, the remaining 5% from other study courses.

Participants completed two online self-report questionnaires on Lime-Survey Platform. In order to limit the risk of response-rates associated with the length of questionnaire (Vincente & Reis), we used single-items to explore transversal competencies.

Erasmus students completed one questionnaire before departure and another one at re-entry, instead the control group completed two questionnaires, the second one around 6 months after the first one. The voluntary and not paid participation to the research, and the anonymity and confidentiality of the data were emphasized. We obtained informed consent by participants. The study observed the Helsinki Declaration (World Medical Association, 2001); since it did not involve medical treatment or other procedures capable of causing psychological or social discomfort to participants, no further ethical approval was required.

For this study, quantitative and qualitative data were collected simultaneously using a survey with Likert-type questions and open-ended questions for qualitative data. In particular qualitative data were used to better explore the cross-cultural learning process and, therefore, it concerns only Erasmus students.

### ***Measures***

*Cultural Intelligence*: was measured using 20 items from the adaptation of the Cultural Intelligence Scale (CQS) (Ang et al., 2007; Ghislieri, Molino, Dolce, Mercogliano, & Mosso, 2018), using a 7-point Likert scale with scores ranging from 1 (strongly disagree) to 7 (strongly agree). Four dimensions define the factor-structure of this scale: cognitive, metacognitive, motivational and behavioral. The *cognitive dimension* was measured by 6 items; an example item is “I know the legal and economic systems of other cultures”. Cronbach’s alpha was .85 both at the first time and at the second time for the whole sample, .83 at the first time and .81 at the second time for the Erasmus students’ subsample and .88 at the first time and .87 at the second time for the control group. The *metacognitive dimension* was evaluated using 4 items; an example item is “I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds”. Cronbach’s alpha was .82 both at the first time and at the second time for the whole sample, .80 at the first time and .79 at the second time for the Erasmus students’ subsample and .82 at the first time and .79 at the second time for the control group. The *motivational dimension* was measured by 5 items; an example item is “I enjoy interacting with people from different cultures”. Cronbach’s alpha was .85 at the first time and .87 at the second time for the whole sample, .84 at the first time and .86 at the second time for the Erasmus students’ subsample and .89 at the first time and .86 at the second time for the control group. Finally, the *behavioral dimension* was evaluated using 5 items; an example

item is “I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it”. Cronbach’s alpha was .86 at first time and .85 at the second time for the whole sample, .85 at the first time and .86 at the second time for the Erasmus students’ subsample and .90 at the first time and .86 at the second time for the control group.

*Resilience*: measured by 10 items from the Italian adaptation (Di Fabio and Palazzeschi, 2012) of Connor and Davidson’ scale (2003); with a 5-point Likert scale with scores ranging from 1 (strongly disagree) to 5 (strongly agree); an example item is “I tend to bounce back after illness, injury, or other hardships”. Cronbach’s alpha was .84 at the first time and .85 at the second time for the whole sample, .85 at the first time and .84 at the second time for the Erasmus students subsample and .79 at the first time and .85 at the second time for the control group.

*Transversal competencies*: assessed by a set of items ad hoc; with a 5-point Likert scale with scores ranging from 1 (strongly disagree) to 5 (strongly agree). An example item is “Organizational competencies (project management, time management, teamwork planning and coordination, ...)”.

Qualitative data was also collected by using an open field in which was asked to tell a surprising intercultural experience (positive or negative) from their Erasmus stay.

### ***Data analysis***

To analyze qualitative and quantitative data, we apply a mixed-methods approach.

The SPSS 25 statistics software was used to perform descriptive data analysis. Moreover, the reliability of the scales was calculated by examining the internal consistencies of each scales and subscales for each group and for the whole sample at the end of experience and at the beginning. In order to assess the invariance measures across time, the longitudinal measurement invariance analysis was performed using Mplus 7 on the whole sample. The longitudinal measurement invariance method estimation was Maximum Likelihood (ML). Repeated Measures ANOVA was used to examine differences in the variables means within groups across time.

To explore qualitative data, content analysis was applied to explore the questionnaire open fields. 13 on 89 answers were selected to better explain the development process of intercultural competences; they were the most salient answers. Not all participants answered to open field, the response rate was 52%; the answers were short sentences. In order to ensure anonymity, we used made-up names when we reported the personal experiences of participants. These answers have been analyzed taking strongly into consideration the four CQ dimensions: metacognitive, cognitive, behavioral and motivational but also the Deardoff’s theorization (2006). Two researchers did the analysis separately with an inter-coder rate higher than 80%, and then discussed until they could agree

on all case attributions. After both types of quantitative and qualitative data were analyzed separately, we confronted both.

## RESULTS

### Quantitative data

#### *Longitudinal invariance measurement*

Table 1 shows the results of longitudinal test of invariance for CQ subscales calculated on the whole sample. The findings suggested that the model with no invariance constraints ( $M_1$ ) provided a good fit to the data supporting the configural invariance; in order to improve fit two correlation between two items were added. Therefore, the analysis proceeded by applying parameters constraints in successive models to examine potential decreases in fit resulting from measurement or structural non invariance over the two occasions. Model  $M_2$  (metric invariance model) constrained factor loadings to be equal across time. The metric invariance model did not fit significantly worse than the configural invariance model ( $\Delta\chi^2(16) = 24.83, p = .073$ ), supporting the weak measurement invariance.

Equality of factor loadings and item intercepts across time was examined in  $M_3$  (scalar invariance model) to be invariant across time. The difference in fit between the two nested models ( $M_3$  vs  $M_2$ ) was not statistically significant ( $\Delta\chi^2(16) = 23.37, p = .104$ ), confirming the presence of strong measurement invariance and allowing to compare means across the two occasions.

**Table 1.** Longitudinal invariance measurement for CQ subscales in the whole sample (N=222)

<i>Model</i>	$X^2$	df	P	CFI	TLI	RMSEA	CI95%	SRMR	$\Delta\chi^2$	$\Delta df$	<i>p</i>	$\Delta CFI$
$M_1$	1107.674	688	.00	.919	.908	.052	(.047,.058)	.060				
$M_2$	1132,504	704	.00	.917	.908	.052	(.047,.058)	.064	24.83	16	.073	.002
$M_3$	1155.877	720	.00	.916	.909	.052	(.047,.058)	.064	23.37	16	.104	.001

Table 2 shows the results of longitudinal test of invariance for resilience calculated on the whole sample. A configural invariance model ( $M_1$ ) was initially specified; in order to improve the goodness of fit two items correlations were added and finally this model provided a good fit to the data. Then,



equality in factor loading across the two occasions was examined in the metric invariance model (M<sub>2</sub>). Based on chi-squared difference M<sub>2</sub> did not show to fit significantly worse than M<sub>1</sub> ( $\Delta\chi^2(8) = 10.21, p = .251$ ), supporting the invariance of factor loadings. Scalar invariance model (M<sub>3</sub>) constrained factor loadings and item intercepts to be equal across time. The difference in fit between the two nested models (M<sub>3</sub> vs M<sub>2</sub>) was not statistically significant ( $\Delta\chi^2(9) = 8.57, p = .478$ ), supporting the scalar invariance model and comparison of means across time.

**Table 2.** Longitudinal invariance measurement for resilience scale in the whole sample (N=222)

<i>Model</i>	<i>X<sup>2</sup></i>	<i>df</i>	<i>p</i>	<i>CFI</i>	<i>TLI</i>	<i>RMSEA</i>	<i>CI95%</i>	<i>SRMR</i>	<i>Δchi</i>	<i>Δdf</i>	<i>p</i>	<i>ΔCFI</i>
M <sub>1</sub>	298.508	158	.00	.919	.903	.063	(.052,.074)	.064				
M <sub>2</sub>	308.714	166	.00	.918	.906	.062	(.051,.073)	.070	10.21	8	.251	.001
M <sub>3</sub>	317.287	175	.00	.918	.911	.061	(.050,.071)	.071	8.57	9	.478	.000

### *Descriptive statistics, Cronbach's alphas and correlations*

The four dimensions of CQ, as illustrated in correlation matrices (Table 3 and Table 4), were significantly positively related at each other, both at the time 1 and at the time 2. In particular, as shown by Table 3, at the first time, the cognitive dimension correlated positively and significantly with the metacognitive ( $r = .65, p < .01$ ), the motivational ( $r = .29, p < .01$ ) and the behavioral ones ( $r = .45, p < .01$ ). The metacognitive dimension correlated with the motivational ( $r = .38, p < .01$ ) and the behavioral ones ( $r = .45, p < .01$ ), and the motivational dimension with the behavioral one ( $r = .39, p < .01$ ). Moreover, resilience, at the time 1, was significantly positively related to the dimensions of CQ, except to the behavioral one: the cognitive ( $r = .26, p < .01$ ), the metacognitive ( $r = .32, p < .01$ ) and the motivational ( $r = .40, p < .01$ ). At the first time, transversal competencies correlated at each other. They correlated significantly and positively with resilience, cognitive CQ and metacognitive CQ, but not with motivational CQ and behavioral CQ except some cases.

Similarly, at the second time, as shown by Table 4, at the first time, the cognitive dimension was positively and significantly correlated with the metacognitive ( $r = .64, p < .01$ ), the motivational ( $r = .45, p < .01$ ) and the behavioral ones ( $r = .49, p < .01$ ). The metacognitive dimension was correlated with the motivational ( $r = .53, p < .01$ ) and the behavioral ones ( $r = .47, p < .01$ ), and the motivational dimension with the behavioral one ( $r = .44, p < .01$ ). Results at the second time confirmed the positive and significant correlation between resilience and all dimensions of CQ, except the behavioral one: the cognitive ( $r = .25, p < .01$ ), the metacognitive ( $r = .32, p < .01$ ), the

motivational ( $r = .39 p < .01$ ). At the second time, transversal competencies correlated at each other. Furthermore, as shown by Table 4, they significantly and positively correlated with resilience, cognitive CQ and metacognitive CQ. The behavioral dimension positively and significantly correlated only with the organizational ( $r = .24 p < .01$ ) and communication and relational competencies ( $r = .16 p < .05$ ).

Internal consistency of measures was good, since all  $\alpha$  values met the criterion of .70 (Nunnally and Bernstein, 1994), as they ranged between .82 and .86 at the first time and between .82 and .87 at the second time.

**Table 3.** Means, standard deviations, Cronbach's alpha and correlations among the study variables in the whole sample (N=222) at the first time

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Cognitive CQ	3.72	1.05	(.85)									
2. Metacognitive CQ	4.80	1.03	.65**	(.82)								
3. Motivational CQ	5.38	1.08	.29**	.38**	(.85)							
4. Behavioral CQ	4.38	1.23	.45**	.45**	.39**	(.86)						
5. Resilience	3.70	.60	.26**	.32**	.40**	.11	(.84)					
6. Organizational competencies	3.63	.91	.32**	.35**	.07	.15*	.29**	-				
7. Communication and relational competencies	3.82	.86	.22*	.25**	.10	.13	.31**	.35**	-			
8. Research competencies	3.28	.95	.33**	.42**	.12	.20**	.24**	.43**	.37**	-		
9. Competencies regarding study method	3.60	.96	.22**	.33**	.03	.15*	.19*	.48**	.34**	.42**	-	
10. Knowledge regarding study discipline	3.75	.80	.22**	.24**	.03	.09	.26**	.36**	.38**	.37**	.48**	-

**Notes:** Cronbach's  $\alpha$  for the whole sample on the diagonal, \*\* $p < .01$ ; \* $p < .05$

**Table 4.** Means, standard deviations, Cronbach's alpha and correlations among the study variables in the whole sample (N=222) at the second time

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Cognitive CQ	3.99	1.06	(.85)									
2. Metacognitive CQ	4.85	.92	.64**	(.82)								
3. Motivational CQ	5.27	1.09	.45**	.53**	(.87)							
4. Behavioral CQ	4.53	1.15	.49**	.47**	.44**	(.85)						
5. Resilience	3.77	.59	.25**	.32**	.39**	.09	(.84)					

6. Organizational competencies	3.97	.79	.28**	.25**	.21**	.24**	.28**	-
7. Communication and relational competencies	4.11	.75	.26**	.25**	.23**	.16*	.36**	.34**
8. Research competencies	3.63	.94	.23**	.26**	.29**	.10	.31**	.36**
9. Competencies regarding study method	3.92	.89	.15*	.17*	.09	.09	.28**	.31**
10. Knowledge regarding study discipline	3.94	.74	.22**	.22**	.19**	.08	.29**	.35**

**Notes:** Cronbach's  $\alpha$  for the whole sample on the diagonal, \*\* $p < .01$ ; \* $p < .05$

### *Psychometrics properties of transversal competencies items*

Asymmetry and Kurtosis of each items of transversal competencies were performed in order to check deviation from normality. All items showed a normal distribution according to Asymmetry and Kurtosis indexes; as shown by Table 5 and 6, all values were comprised in the range -1.0 to +1.0 both at the first time and at the second time.

**Table 5.** Descriptive statistics of single items of transversal competencies in the whole sample (N=222) at the first time

	<i>M</i>	<i>SD</i>	Kurtosis	Asymmetry
1. Organizational competencies	3.63	.91	-.438	.060
2. Communication and relational competencies	3.82	.86	-.648	.580
3. Research competencies	3.28	.95	-.091	-.467
4. Competencies regarding study method	3.60	.96	-.378	-.157
5. Knowledge regarding study discipline	3.75	.80	-.547	.575

**Table 6.** Descriptive statistics of single items of transversal competencies in the whole sample (N=222) at the second time

	<i>M</i>	<i>SD</i>	Kurtosis	Asymmetry
1. Organizational competencies	3.97	.79	-.393	-.300

2. Communication and relational competencies	4.11	.75	-.502	-.172
3. Research competencies	3.63	.94	-.229	-.660
4. Competencies regarding study method	3.92	.89	-.633	-.201
5. Knowledge regarding study discipline	3.94	.74	-.503	-.254

### ***Repeated Measures ANOVA***

Looking specifically at every dimension, table 7 shows that Erasmus students perceived a significantly higher level of cognitive CQ after the Erasmus experience ( $M = 4.17$ ,  $SD = .90$ ) than before it ( $M = 3.80$ ,  $SD = 1.01$ ) [ $F(1) = 30.215$ ,  $p < .001$ ]. On the contrary, any significant change was found in relation to the other dimensions of CQ: the metacognitive [ $F(1) = 1.820$ ,  $p = .179$ ], the behavioral [ $F(1) = 1.79$ ,  $p = .046$ ], and the motivational [ $F(1) = 4.057$ ,  $p = .110$ ]. Even though with a weak effect size ( $\eta^2 = .04$ ), the level of resilience was significantly higher at reentry ( $M = 3.80$ ,  $SD = 1.01$ ) than at the departure ( $M = 3.80$ ,  $SD = 1.01$ ) [ $F(1) = 36.718$ ,  $p < .05$ ].

**Table 7.** Means, standard deviations, Cronbach's alphas, RM ANOVA in the Erasmus students subsample (n=170)

	<i>T1</i>			<i>T2</i>			SQ	df	F	p	$\eta^2$
	M	SD	$\alpha$	M	SD	$\alpha$					
Cognitive CQ	3.80	1.01	.83	4.17	.90	.81	10.884	1	30.215	.000	.152
Metacognitive CQ	4.86	1.00	.80	4.95	.90	.79	.777	1	1.820	.179	.001
Behavioral CQ	4.44	1.21	.85	4.44	1.09	.86	3.164	1	4.057	.046	.023
Motivational CQ	5.58	.91	.89	5.58	1.00	.86	1.176	1	2.576	.110	.015
Resilience	3.72	.63	.85	3.63	.57	.84	.985	1	6.718	.010	.038

Table 8 shows the findings for the control group; any significant change across time was found. The Cognitive CQ [ $F(1) = .00$ ,  $p = 1.00$ ], the metacognitive CQ [ $F(1) = 338$ ,  $p = .563$ ], the behavioral CQ [ $F(1) = 0.02$ ,  $p = .965$ ] and the motivational CQ [ $F(1) = .461$ ,  $p = .500$ ] did not change across time

for the control group. Similarly to CQ dimensions, also the level of resilience did not show a change across time [ $F(1) = .217, p = .643$ ].

**Table 8.** Means, standard deviations, Cronbach's alphas, RM ANOVA in the control group (n=52)

	T1			T2			SQ	df	F	P	$\eta^2$
	M	SD	$\alpha$	M	SD	$\alpha$					
Cognitive CQ	3.42	1.14	.88	3.42	1.13	.87	.00	1	.00	1.00	.000
Metacognitive CQ	4.60	1.11	.82	4.51	.92	.79	.174	1	.338	.563	.007
Behavioral CQ	4.21	1.28	.90	4.20	1.27	.86	.002	1	.002	.965	.000
Motivational CQ	4.72	1.32	.89	4.64	1.16	.86	.203	1	.461	.500	.009
Resilience	3.61	.53	.79	3.58	.60	.85	.028	1	.217	.643	.004

As regards transversal competencies, table 9 and table 10 show the results respectively for Erasmus students' subsample and for control group. Erasmus students showed a significant increasing of level of all transversal competencies across time, on the contrary for the control group any significant change emerged. In particular, Erasmus students showed a significant lower level of organizational competencies at the first time ( $M = 3.52, SD = .91$ ) than at the second time ( $M = 4.01, SD = .78$ ) [ $F(1) = 39.707, p < .001$ ]; on the contrary any significant difference across time was found for the control group concerning this competence [ $F(1) = 1.412, p = .241$ ]. Moreover, the findings showed that the communication and relational competencies was lower before the Erasmus experience ( $M = 3.81, SD = .91$ ) than after it ( $M = 4.16, SD = .91$ ) [ $F(1) = 21.830, p < .001$ ] and, conversely, remained almost the same across time for the control group [ $F(1) = .286, p = .595$ ]. The level of perceived competencies regarding study method was found higher among Erasmus students after the abroad experience ( $M = 3.97, SD = .91$ ); than before ( $M = 3.58, SD = .99$ ) [ $F(1) = 25.122, p < .001$ ]; also in this case any significant change emerged across time for the control group [ $F(1) = 3.076, p = .086$ ]. Finally, only for Erasmus students a higher level of knowledge regarding study discipline was found at the second time ( $M = 3.98, SD = .76$ ) than at the first time ( $M = 3.75, SD = .84$ ) [ $F(1) = 10.289, p < .01$ ]; any difference across time was found for the control group [ $F(1) = .039, p = .844$ ].

**Table 9.** Means, standard deviations, RM ANOVA in the Erasmus students subsample (n=170)

	<b>T1</b>		<b>T2</b>		<b>SQ</b>	<b>df</b>	<b>F</b>	<b>P</b>	<b><math>\eta^2</math></b>
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>					
Organizational competencies	3.52	.91	4.01	.78	20.262	1	39.707	.000	.190
Communication and relational competencies	3.81	.88	4.16	.76	10.238	1	21.830	.000	.114
Research competencies	3.32	.90	3.71	.90	12.812	1	26.028	.000	.133
Competencies regarding study method	3.58	.99	3.97	.91	12.812	1	25.122	.000	.129
Knowledge regarding study discipline	3.75	.84	3.98	.76	4.706	1	10.289	.002	.057

**Table 10.** Means, standard deviations, RM ANOVA in the control group (n=52)

	<b>T1</b>		<b>T2</b>		<b>SQ</b>	<b>df</b>	<b>F</b>	<b>p</b>	<b><math>\eta^2</math></b>
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>					
Organizational competencies	4.00	.88	3.86	.81	.500	1	1.412	.241	.029
Communication and relational competencies	3.90	.88	3.96	.76	.092	1	.286	.595	.006
Research competencies	3.12	.88	3.35	.90	1.235	1	3.076	.086	.060
Competencies regarding study method	3.69	.98	3.76	.95	.092	1	.253	.617	.005
Knowledge regarding study discipline	3.78	.68	3.80	.71	.010	1	.039	.844	.001

### Qualitative data

Qualitative results showed the effective acquisition of specific cross-cultural competencies. In particular, regarding cultural comprehension aspects, many Italian students seem to have acquired practical knowledge in different areas: academic styles, social practices, legal norms, bureaucratic procedures, economic aspects.

Specifically, many are the experiences reported regarding the different academic practices at university, for example, a student, after five months spent in Spain, declared that she was surprised by:

*The similarity between host university and our high schools: homework, sharing in class of twenty students, students attitude not so mature, familiarity with lecturers (L., woman, 23 years old).*

Similarly, another student, after six months spent in Spain, reported:

*I was positively surprised by informal relationship between scholar and lecture (D., 21, man, years old).*

In other cases, students referred to the development of language skills:

*I was positively surprised by the fast and easily learning of Spanish that I cannot speak before leaving [...] (E., woman, 21 years old).*

Some participants highlighted the knowledge about common social practices:

*In Denmark it is not used the formality with person who are unfamiliar as in Italy. For example, walking down the street, I was often greeted by bystanders, even though they were total strangers (C., 23 years old).*

As regards economic aspects, some students, starting from concrete and problematic experience, reported to have understood specific economic local aspects. A student, after 10 months spent in Spain, said regarding accommodation:

*The house research for the second semester (because I had to move from the first one when I was in) was an experience at the beginning really tragic. In Barcelona, the accommodation request is higher than offer and I was going to lose the hope and resign myself to ask for hospitality to some friends when they called me from the house that I had liked most absolutely [...] (P., woman, 23 years-old).*

Starting from the awareness of some costumes, habits, and social practices some students have focused on what they have learned but also on some specific behaviors acted in the different cultural setting. Specifically, a student when she returned in Italy after five months spent in Romania, remembered:

*I spent two nights in a monastery in mountain with a wood stove to warm and the necessity to speak Romanian to interact with monks. Completely positive (S., 21 years-old).*

Problematic situations are often used to explain better what behaviors have been acted in a different cultural environment. For example, a student, after 10 months spent abroad in Spain, referring to a specific episode, made clear what behaviors and strategy problem skills were adopted:

*I spent many positive experiences but also negative (but they had all a happy end). One of these happened at the beginning of June, when my English friend' smartphone was stolen in a Mexican restaurant. [...] This experience finished with a smile, in hindsight, the strange attitude and others little clues had to be a wake-up call...This experience could be avoided. At least we have demonstrated to be able face sudden situation and problems nonetheless the difficulty to live in other country and to deal with all using another language and different systems from home country. (M., woman, 22 years old)*

Similarly, it is also relevant for its peculiarity this episode:

*One evening of December, I and my Finish roommate had to call firemen because we were in doubt there was a fire in the building. The problem was that nobody spoke English but only Hungarian and we had to find way to explain the situation. I'm satisfied to have solved that situation (A., woman, 22 years old).*

The awareness of different cultural norms and assumptions could also lead to change interaction strategies or modify own mental models. In this regard a student when he came back in Italy after nine months spent in France, declared:

*To fall in love with a boy from another culture and thus adopt in a positive way my culture to him culture (G., woman, 25 years old).*

As regards religious practices and modification of interactions strategies in relation to respect of others cultures, another Italian Erasmus students, after 5 months spent in Spain, said:

*I have hosted a Muslim friend, sharing with him a lunch and when it needed private spaces to pray I gave to him my bedroom (G., man 22 years old).*

Furthermore, Italian student highlighted also the pleasure to have spent time or made friends with people from different countries, in other words the so-called motivational intelligence dimension seems to be present. The emblematic episodes claimed that although the language could be felt as a barrier, the relationship among people from different countries could however exist

*In my flat we were able to speak English to communicate, but not all my flatmates knew it well. It was really surprising to note how much was easy to closer relations with this people although we were not able to speak well the language (G. woman, 22 years old).*



The aspects related to making friends with people from different countries are often mentioned as relevant elements of experience. 10 months spent in Spain, said:

*A surprising experience that I lived during my mobility period was to meet people from different cultures and countries far from me and to make friends as we were a family, deleting distances and differences*  
(E., woman 24 years-old)

Not everyone has reported a positive experience able to be related to the cultural intelligence dimensions. Some students reported also negative interaction experiences. In this respect a participant who spent five months in Spain, after coming to Italy, said to have been negatively surprised by the fact:

*To stay with Spanish classmates that one day speak with you and another day don't tell you anything*  
(S., man 22 years old)

Although in some cases students reported the presence of negative experience, frequently these “critical incidents” reports have been associated to an effective cross-cultural learning process.

## DISCUSSION

The main purpose of this study was to investigate the impact of Erasmus program on the development of the four dimensions of CQ, on transversal competencies and resilience. To achieve this purpose, we hypothesized that all dimensions of CQ (*Hypothesis 1a*) all transversal competencies (*Hypothesis 2a*) and resilience (*Hypothesis 3a*) change across time in the Erasmus students' subsample. On the contrary, we assume that the same variables, namely CQ (*Hypothesis 1b*), transversal competencies (*Hypothesis 2b*) and resilience (*Hypothesis 3b*), do not vary across time in the control group.

The first hypothesis was partially confirmed. Indeed, in line with Varela and the Garlin-Watts' findings (2014), the cognitive dimension was significantly higher after the international experience than before it; nevertheless, the behavioral and motivational CQ did not show any significant increment across time. Differently from Garlin-Watts' evidences (2014), the metacognitive dimension did not change thanks to the participation to Erasmus programs. For the control group any significant change was found.

The second hypothesis was fully confirmed. All types of transversal competencies increased across time and solely for the Erasmus students' group. Any change was found for the control group

supporting, in turn, the assumption about the impact of international mobility on development of these competencies. Therefore, in addition to cultural sensitivity (e.g., Anderson et al. 2006; Crossman & Clarke 2010; Lindsey 2005; Stronkhorst 2005; Williams 2005; Ruddock & Turner 2007), adaptability (e.g., Mapp, 2012, Williams, 2005), the findings showed that the following abilities and knowledge increased when people join Erasmus program, in particular: the organizational, communication, and relational skills, the research capabilities, the competences related to study method and the knowledge about study discipline.

Lastly, in line with the findings on the development of personal characteristics such self-efficacy (DeGraaf et al., 2008; Lindsey, 2005; Petersdotter t al., 2017; Norris & Gillepsie, 2009) and self-awareness (Van Hoof & Verbeeten, 2005), even though with a weak effect size, also the level of resilience appeared higher after Erasmus program than before it. This positive change was not found for the control group.

Furthermore, qualitative results supported the activation of a “cross-cultural learning process”: many students reported experiences on the acquisition of knowledge about social and academic practices, interaction rules between women and men, legal norms and procedures.

The analyze conducted on qualitative data has not been performed only to support quantitative results but also to understand better the learning process, the transition from an ethnocentric orientation to an ethnorelative one (Bennet, 1986; 1993; 2004), from the personal level to the interpersonal and interactive one (Deardoff, 2006). These findings, resulted from open-ended questions, showed the strength of Erasmus program; they were able to explain some aspects of process model of intercultural competence (Deardoff, 2006). Indeed, episode reported by students sometimes has a content related to the learning of cross-cultural knowledge and practices learned and some others to the adaptation of different mental models, verbal and non-verbal behaviors (Deardoff, 2006). Furthermore, considering Bennett model (Bennet, 1986; 1993; 2004), Erasmus program seems to contribute to intercultural development process, moving from acceptance of difference to integration of them. The analyze of these specific experiences, that it is possible to define as “critical incidents”, could help to rework attitudes and feelings towards the whole experience (e.g., respect for diversity), behavior patterns anchored in a different cultural setting; knowledge and skills learned and coping strategy found to solve specific intercultural situations (Spencer-Oatey, 2013).

## **CONCLUSION**

Overall, these qualitative and quantitative findings seem to confirm the international mobility expectations formalized in the Bologna 2020 process (article 18 and 19): cultural awareness, respect

for the diversity and ability to apprehend from different cultures, personal development and employability.

Furthermore, this work points in the direction suggested by the panel of intercultural scholars who participated to Deardoff's study (2006) who recommend to assess intercultural competencies through a mix of qualitative and quantitative measures. Furthermore, the use of open-ended questions, in addition to reinforce the value of the research project, could have practical implications (Spencer-Oatey, 2013). The use of this "critical incidents" (such as the memory of emblematic episodes could be applied as intercultural development tools (Spencer-Oatey, 2013).

Despite the implications, this study has some limitations. First the small control group is not representative. Secondly, the study measured single-source self-report data, which means the possibility of common method bias. It could have been helpful to combine the use of performance-based methodology (Goldenberg, Matheson, & Mantler, 2006). Furthermore CQS, although its good psychometric properties (content, construct and ecological validity confirmed by Matsumoto and colleagues' meta-analysis), is not free of limits as suggested by the critical approach of Bückner and colleagues (2015) who have pointed out the possible risk of multicollinearity between the dimensions. Furthermore, the nature of CQS could be affected by "Dunning-Kruger effect" (Kruger & Dunning, 1999), by a cognitive bias of people with low levels of competence overestimate their skills. Despite this limit is partially overcome by qualitative data that complement self-report answers, one important limitation is the number of answers given by participants, indeed not all participants answer to the open-field form.

## CHAPTER 2

### **Intercultural network and resilience, is there a relationship with Cultural Intelligence?**

#### **An explorative study with Italian Erasmus students**

##### *Abstract*

This study aims to comprehensively investigate the antecedents of international students' Cultural Intelligence (CQ) by simultaneously considering a personal characteristic, namely resilience, and some situational aspects of the Erasmus program, specifically, the length of the experience and friendships with international and local students. Data were collected from 791 outgoing Italian Erasmus students using a self-report questionnaire. The hypotheses were tested using the Full Structural Equation Model (SEM) by Mplus 7. The hypotheses were partially confirmed. The findings showed the strong role played by resilience, positively related to all dimensions of CQ. Contrary to expectations, the length of the Erasmus experience was only positively associated with the metacognitive dimension. Lastly, assumptions regarding the international network were partially supported; indeed, forming friendships with international students was positively related to motivational and metacognitive CQ, whereas establishing relationships with locals was only positively related to cognitive CQ. Practical implications are discussed.

*Keywords:* cultural intelligence, Erasmus program, resilience, intercultural network

## INTRODUCTION

Cross-border mobility is an increasingly widespread phenomenon as far as education and work are concerned. Indeed, today, workers operate in a globalized labor market and are often involved in various international assignments such as: corporate expatriation, international business travel, flexpatriate work, short-term assignments (Pate & Scullion, 2018; Shaffer, Kraimer, Chen, & Bolino 2012; Wickman & Vecchi, 2009). Furthermore, in Europe, the Schengen agreement has facilitated this free movement across countries; there has also been a continuous increase in the flow of cross-border workers, specifically in some countries such as France (Wodociag, Dolce, & Molino, 2019). Mobility across boundaries has also been promoted in higher education through various international programs such as: the University Mobility in Asia and the Pacific program (UMAP), the International Mobility Programs in Canada (IMPs), the European Region Action Scheme for the Mobility of University Students (ERASMUS). In detail, the ERASMUS program was launched in 1987 (Teichler & Jahr, 2001), and saw the participation of around 3,000 students from 11 countries in the first year (1987/88). According to the last annual Report of the European Commission (2018), in 2017 the Erasmus Plus program allowed nearly 800,000 people to study, train or volunteer abroad. Erasmus Plus sustains the mobility of both students and staff for a temporary stay abroad.

In financing the Erasmus Program, the European Commission pursues various objectives: the promotion of values such as equality, democracy, human dignity, the rule of law, freedom and respect for human rights, including the rights of persons belonging to minorities. Another education objective is to increase attainment in tertiary education to at least 40% by 2020. A further aim is the development of technical and soft skills, especially cross-cultural competencies to enable people to move in different cultural settings (Bryla, 2015; Volet & Ang, 2012).

A fragmented corpus of studies has been developed to monitor the expected learning outcomes of various study-abroad programs (Varela, 2017): personality changes (Miller-Perrin & Thompson, 2010), career growth (Ingraham & Peterson, 2010), global careers (e.g., Norris & Gillespie, 2009), language proficiency (e.g., Baker-Simemoe, Dewey, & Bown) and cross-cultural competencies, specifically CQ (e.g., Varela & Garlin-Watts, 2014, Wood & St. Peters, 2014).

Our study considers the Erasmus Program and focuses on a specific type of cross-cultural competence, namely cultural intelligence (Ang et al. 2007). Starting from previous studies (Crowne, 2008; Moon, Choi, & Yung, 2012; Shannon & Begley, 2008; Takeuchi, Tesluk, Yun, & Lepak, 2005; Uen, Teng, Wu, & Tsao, 2018) which found a positive relationship between international experience and cultural CQ, this study attempts to shed more light on how situational factors of the Erasmus Program contribute to explain CQ. For this purpose, starting from Ng and colleagues' theoretical

recommendations (2012), we explore how the length of the experience and the nature of the international network developed abroad predict the four dimensions of CQ. We also explore the role of resilience, studied in relation to the intercultural adjustment process (Mesidor & Sly, 2016; Van der Zee & Van Oudenhoven, 2013), but still little explored in relation to CQ. Lastly, the main purpose of this study is to identify some antecedents of CQ, based on a combined model of personal and situational factors.

## **LITERATURE REVIEW**

### ***Cultural intelligence***

CQ is a multidimensional construct defined by Ang and colleagues as “an individual’s capability to function and manage effectively in culturally diverse settings” (Ang et al., 2007, p. 337). This individual capability transcends cultural boundaries and it is applicable to whatever culture (Ang et al., 2007; Ng, Van Dyne, & Ang, 2012).

CQ comprises four dimensions, namely: cognitive, metacognitive, motivational, and behavioral. The cognitive component refers to knowledge about conventions, legal norms, economic rules, and awareness of social practices; people with a higher level of CQ are able to recognize differences and similarities among diverse countries (Brislín, Worthley, & McNab, 2006; Ng & Early, 2006; Ng et al. 2012). By comparison, metacognitive CQ concerns higher-order cognitive processes, it reflects mental processes that individuals use to acquire and understand cultural knowledge; people with a high level of metacognitive CQ are able to plan and monitor their own mental models, and to adjust them during and after cross-cultural interactions (Ang & Van Dyne, 2008; Early, Ang, & Tan, 2006; Ng et al. 2012). The motivational component reflects the ability to direct positive energy towards learning about culturally diverse systems (Ang et al., 2007, Ang & Van Dyne, 2008; Early et al., 2006; Ng et al., 2012), those with a high level of motivational CQ are willing to meet people from other countries and to act in another culture, to travel and to interact in cross-cultural situations. Lastly, the behavioral dimension is related to all appropriate verbal and non-verbal actions such as language, tone, posture and facial expressions which people use differently in culturally diverse settings (Ang & Van Dyne, 2008; Ang et al., 2007; Ng et al., 2012).

Ang and colleagues (2007) developed the cultural intelligence scale (CQS), which has been adapted into several languages (e.g., Ghislieri, Molino, Dolce, Mercogliano, & Mosso, 2018; Moyano, Taberner, Melero, & Trujillo, 2015), and defined as one of the most valid measures for assessing cross-cultural competencies (Matsumoto & Hwang, 2013).

### *Antecedents of cultural intelligence*

CQ has recently aroused the interest of many scholars, some of whom have tried to explore its antecedents (Crowford-Mathis, 2009; Crowne, 2008; Engle & Nerht, 2012; Frías-Jamilena et al., 2018; Li, Mobley, & Kelly, 2012; Moon et al., 2012; Takeuchi et al., 2005; Tarique & Takeuchi, 2008; Tay et al., 2008; Shannon & Begley, 2008; Uen et al. 2018). As highlighted by Ng and colleagues (2012), personality traits and international experience have been the most investigated predictors; on the contrary, few studies have analyzed the quality of experience, or other situational and environmental aspects.

As regards personality traits, the five facets of the Big Five appear to be related to CQ (Ang, Van Dyne, & Koh, 2006); in particular, the authors (2006) found that openness was related to all dimensions of CQ, and that extraversion was associated with all dimensions except for the metacognitive CQ, agreeableness and emotional stability were related to behavioral CQ and conscientiousness was associated with metacognitive CQ. Considering the role played by openness, this personality trait is the one that has been investigated the most (e.g., Engle & Nehrt, 2012; Li et al., 2016). More specifically, Li and colleagues (2016) found that openness was not significantly positively related to CQ when levels of agreeableness were low, suggesting, therefore, a significant moderation effect. As well as the Big Five personality traits, self-monitoring has also been found to be related to CQ (Crowford-Mathis, 2009, Moon et al., 2012). In addition to personality traits (e.g., Ang et al., 2006; Crowford-Mathis, 2009; Engle & Nerht, 2012; Li et al., 2016), some other personal characteristics, such as the need for control (Engle & Nerht, 2012; Tay et al., 2008) and risk orientation (Engle & Nehrt, 2012) have also been investigated in relation to CQ. Despite the interest in personal characteristics, resilience has not yet been investigated as an antecedent of CQ. Resilience is the ability to positively adapt in the face of stressful situations and to thrive despite hindrances, adversity and challenges (Campbell-Sills & Stein, 2007; Luthar, Cicchetti, & Becker, 2000; Masten, Best, & Garmezy, 1990).

It is a known fact that, after an initial period of euphoria and when the feeling of satisfaction associated with the novelty of situations and the environment declines, people abroad usually experience a sense of personal disorientation, defined as culture shock (Oberg, 1960, Murphy-Lejeune, 2012). When abroad, people are usually faced with stressful situations, intercultural misunderstandings, difficulties in communication, fatigue caused by having to manage social norms and practices and so forth (Poyrazli & Grahame, 2007; Sherry, Thomas, & Chui, 2010; Smith & Khawaja, 2011; Wang & Lin, 2019). In this regard, resilience is one of the identified components of the process of intercultural adjustment and cultural learning (Mesidor & Sly, 2016; Van der Zee &

Van Oudenhoven, 2013). Therefore, consistently with the findings of studies in similar domains, we hypothesized that resilience would positively contribute to cross-cultural process learning and, thus, we assumed:

*Hypothesis 1.* Resilience is positively related to all components of CQ.

In addition to personal characteristics, non-work and work experience also seem to be related to CQ (e.g., Crowne, 2008, Moon et al., 2012; Uen et al. 2018). More specifically, some scholars have investigated the characteristics of international experience, examining the role played by the number of countries visited (Tarique & Takeuchi, 2008; Crowne, 2008), previous experience of the country of destination as a tourist (Frías-Jamilena et al., 2018) as well the length of the experience abroad (Crowford-Mathis, 2009). In particular, Crowford-Mathis (2009) conducted a longitudinal study on a sample of Belizean volunteers involved in service-learning activities and found that the participants who spent most time abroad and interacted more with the locals benefited most in terms of changes in CQ. Moreover, the general acculturation process is influenced by diverse situational and personal variables, including the length of cultural contact (Ward, Bochner, & Furnham, 2001). In the light of these findings, we hypothesized:

*Hypothesis 2.* The length of exposure is positively related to all components of CQ.

As stated above, intercultural contact is a core element of international experience, and people abroad usually develop three types of friendship networks, namely: monocultural (interaction with compatriots), bi-cultural (interaction with locals), multicultural (interaction with non-compatriot foreigners) (Bochner, McLeod & Lin, 1977; Ward et al., 2001); each social network serves specific psychological functions. In the 90s, some scholars stressed the benefits of intercultural contact (Ward et al., 2001), underlining, for instance, the positive relationship between contact with host students and sojourn satisfaction (Rohrlich & Martin, 1991) or lower stress levels and fewer psychological adjustment problems (Berry & Kostovcik, 1990; Redmond & Bunyi, 1993, Pruitt, 1978). Interaction with international students (non-compatriots) was associated with a perceived quality of social support (Kennedy, 1999). Social support could buffer acculturative stress and depression (Smith & Khawaja, 2011), and, as found by a study conducted on a sample of international students in Australia by Sawir and colleagues (2008), seems to reduce loneliness. Furthermore, study-abroad programs enhance cultural diversity in the classroom, which can be an opportunity for building cross-cultural relationships (Croese, 2011). Indeed, more recent empirical studies (Shannon & Begley, 2008; Lee et al. 2018; Moon et al., 2012; Ng & Early, 2006; Phillion, 2002) have suggested that social contacts enhance opportunities for learning cross-cultural competencies. Specifically, Ng and Early (2006)



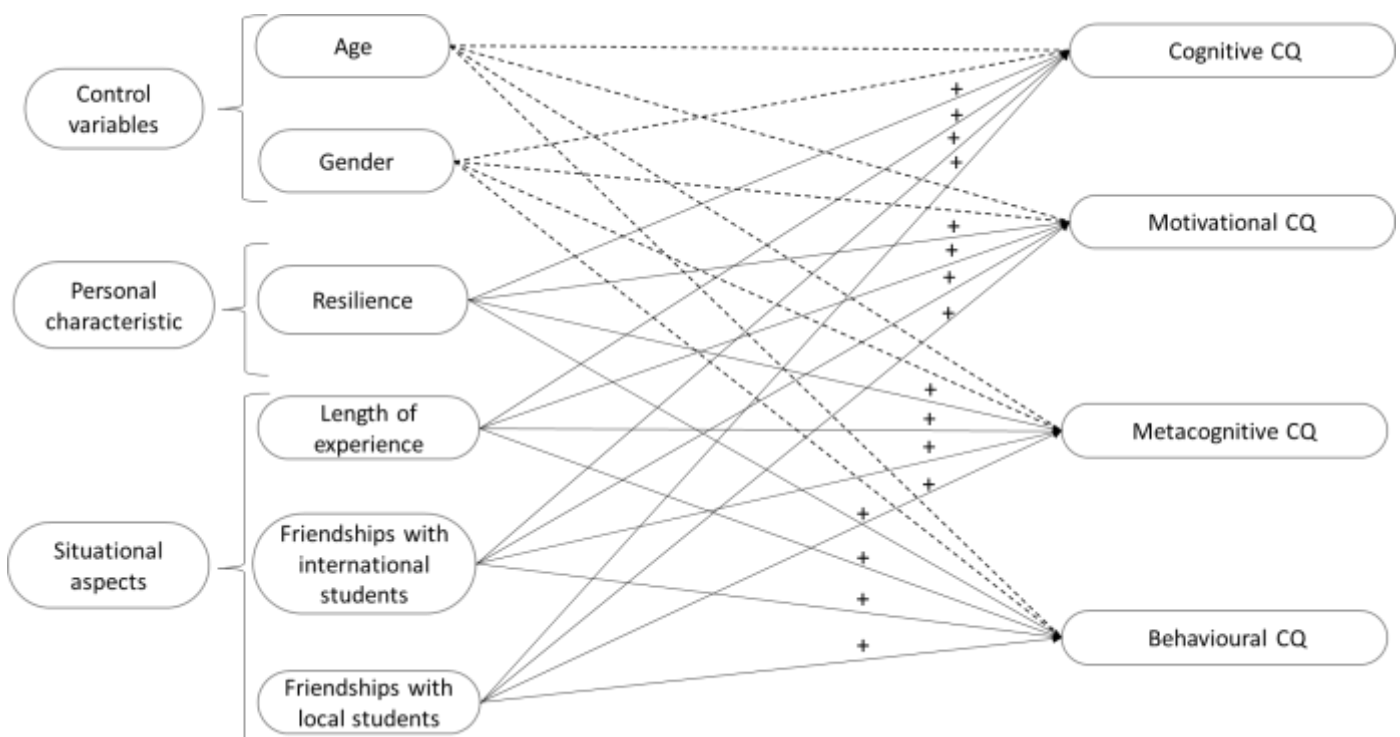
suggested that intercultural contact in working environments may have an impact on CQ. Therefore, we hypothesized that, also in academic contexts:

*Hypothesis 3a:* Friendships with local students is positively related to all components of CQ.

*Hypothesis 3b:* Friendships with host students is positively related to all components of CQ.

CQ and its antecedents have been examined in the literature, yet few studies have combined situational and personal aspects and none have considered resilience as an antecedent of the four dimensions of CQ. Figure 1 presents the study hypotheses.

Fig. 1. Model of Hypotheses:



## METHOD

### *Participants and procedure*

The sample consisted of 791 outgoing Italian Erasmus students ( $M_{age}=22.42$ ,  $SD_{age}=1.69$ ). The students were enrolled at a university in northwest Italy and came from different fields of study: 30% from law, political and economic sciences, 26% from the humanities, 19% from life sciences, 16% from psychological, educational and anthropological sciences, 3% from math and physics, the remaining 4% from other study courses. Females represented 74% of the total sample; this rate is in

line with female participation in Erasmus programs at the University where the study was conducted, which stands at 68%. Furthermore, at this University, males only outnumber females in the computer science, math, physics and earth sciences fields of study (CIRSDE data, 2019), which were under-represented in the present sample. As regards the country of sojourn, Spain was the destination chosen by the highest proportion of the participants (33%), followed by France (21%), Eastern European countries (10%), Germany (9%), Portugal (9%), Scandinavian countries (7%), United Kingdom (4%), Belgium (2%), and other countries 5%. Students spent on average around 7 months abroad ( $M=6.74$ ,  $SD=2.32$ ).

The students completed a self-report questionnaire online on the Lime Survey platform. Participants in the study completed the questionnaire about one month after the end of their Erasmus experience. Data were collected from three cohorts of Erasmus students, between 2016 and 2018. The voluntary and unpaid nature of participation in the research, and the confidentiality of data, were emphasized. We obtained each participant's informed consent. The study was conducted in accordance with the Helsinki Declaration (World Medical Association, 2001); since it did not involve medical treatment or other procedures capable of causing any psychological or social discomfort to participants, no further ethical approval was required.

### ***Measures***

The first section of the questionnaire collected socio-demographic data and information about international mobility (e.g., destination, length of experience).

*Cultural Intelligence*: measured by 20 items from the Italian adaptation of the CQS (Ghislieri, Molino, Dolce, Mercogliano, & Mosso, 2018; Ang et al. 2007), using a 7-point Likert scale with scores ranging from 1 (strongly disagree) to 7 (strongly agree). Four dimensions define the factor-structure of this scale: cognitive, metacognitive, motivational and behavioral. The *cognitive dimension* was measured by 6 items; an example item is "I know the legal and economic systems of other cultures". Cronbach's alpha was .79. The *metacognitive dimension* was evaluated using 4 items; an example item is "I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds". Cronbach's alpha was .82. The *motivational dimension* was measured by 5 items; an example item is "I enjoy interacting with people from different cultures". Cronbach's alpha was .83. Finally, the *behavioral dimension* was evaluated using 5 items; an example item is "I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it". Cronbach's alpha was .85.

*Resilience*: measured by 10 items from the Italian adaptation (Di Fabio and Palazzeschi, 2012) of Connor and Davidson' scale (2003); with a 5-point Likert scale with scores ranging from 1 (strongly disagree) to 5 (strongly agree); an example item is "I tend to bounce back after illness, injury, or other hardships". Cronbach Alpha was .83.

*Intercultural contacts*: students were asked whether they had established relationships and made friends first with local (1 item) and second with foreign students (1 item) using a 5-point Likert scale with scores ranging from 1 (not at all) to 5 (completely).

### ***Data analysis***

SPSS 25 statistics software was used to perform descriptive data analysis. Pearson correlations were tested to detect relationships between variables, and Cronbach's alpha coefficient was calculated to verify scale reliability. The psychometrics properties of the CQS was examined through confirmatory factor analysis (CFA) performed by MPlus. The CFA method estimation was Maximum Likelihood (ML). A full structural equation model (SEM) was tested using Mplus7 in order to estimate the hypothesized regressions. Age and gender were used as control variables. The method of estimation was Maximum Likelihood (ML). According to the literature (Bollen, 1993), the model was assessed by using several goodness-of-fit criteria: the  $\chi^2$  goodness-of-fit statistic; the Root Mean Square Error of Approximation (RMSEA); the Comparative Fit Index (CFI); the Tucker Lewis Index (TLI); the Standardized Root Mean Square Residual (SRMR).

## **RESULTS**

### ***Correlations and descriptive statistics***

The four dimensions of CQ, as illustrated in correlation matrix (Table 1), were significantly positively related one with another: the cognitive dimension with the metacognitive ( $r = .63, p < .01$ ), the motivational ( $r = .35, p < .01$ ) and the behavioral ones ( $r = .40, p < .01$ ); the metacognitive dimension with the motivational  $r = .52, p < .01$  and the behavioral ones ( $r = .50, p < .01$ ), and the motivational dimension with the behavioral one ( $r = .45, p < .01$ ). Moreover, resilience was significantly positively related to all dimensions of CQ: the cognitive ( $r = .32, p < .01$ ), the metacognitive ( $r = .32, p < .01$ ), the motivational ( $r = .39, p < .01$ ) and the behavioural ( $r = .19, p < .01$ ). As well as, friendships with local were positively related to resilience ( $r = .20, p < .01$ ), and the cognitive ( $r = .15, p < .01$ ), the metacognitive ( $r = .09, p < .05$ ), the motivational ( $r = .15, p < .01$ ),

and the behavioral dimensions ( $r = .09, p < .05$ ). Similarly, friendships with international students were positively related to resilience ( $r = .19, p < .01$ ), and all dimension of CQ: the cognitive ( $r = .10, p < .01$ ), the metacognitive ( $r = .18, p < .01$ ), the motivational ( $r = .30, p < .01$ ), the behavioral ( $r = .09, p < .05$ ). As regards the length of experience, it was significantly positively related to the cognitive ( $r = .08, p < .05$ ) and the metacognitive dimensions ( $r = .08, p < .05$ ). The control variables did not correlate with resilience and the dimensions of CQ, except for gender which was positively related to the motivational dimension ( $r = .07, p < .05$ ). Internal consistency of measures was good, since all  $\alpha$  values met the criterion of .70 (Nunnally and Bernstein, 1994), as they ranged between .79 and .83.

Table 1 Item means, standard deviations, Cronbach's Alpha, correlations,

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Cognitive CQ	4.07	.88	(.79)									
2. Metacognitive CQ	5.04	.93	.63**	(.82)								
3. Motivational CQ	5.55	.96	.35**	.52**	(.83)							
4. Behavioral CQ	4.66	1.18	.40**	.50**	.45**	(.85)						
5. Resilience	3.82	.55	.32**	.32**	.39**	.19**	(.83)					
6. Friendships with local	3.46	1.22	.15**	.09*	.15**	.09*	.20**	-				
7. Friendships with international students	4.29	.97	.10**	.18**	.30**	.09*	.19**	.08*	-			
8. Length of experience	6.74	2.37	.08*	.08*	.05	.05	.04	.09**	.02	-		
9. Gender (1 = F)	-	-	-.05	-.02	.07*	.03	-.07*	-.05	.01	-.01	-	
10. Age	22.42	1.69	-.01	-.01	-.01	-.04	-.03	.02	-.01	-.11**	-.11*	-

Notes: \*\* $p < .01$ , \* $p < .05$

### ***Confirmatory Factor Analysis***

Confirmatory factor analyses was performed using Mplus7 on the whole sample ( $N = 891$ ). The solution fitted adequately to the data, confirming the four-factor structure of CQS:  $\chi^2(160) = 617.025$ ;  $p = .00$ ; RMSEA = .06 (.05; .06); CFI = .93; TLI = .92; SRMR = .05. The factor loadings for cognitive CQ ranged from .44 to .68; the factor loadings for metacognitive CQ ranged from .69 to .78; the factor loadings for motivational CQ ranged from .64 to .80; the factor loadings for behavioral CQ ranged from .59 to .81. Moreover, this solution fitted better to the data than the one-factor solution model:  $\chi^2(166) = 1978.554$ ;  $p = .00$ ; RMSEA = .12 (.11; .12); CFI = .74; TLI = .70; SRMR = .09. The final 4-factors solution showed the covariance between residuals of two items of cognitive CQ, two items of motivational CQ, and two paired of items of behavioral CQ.

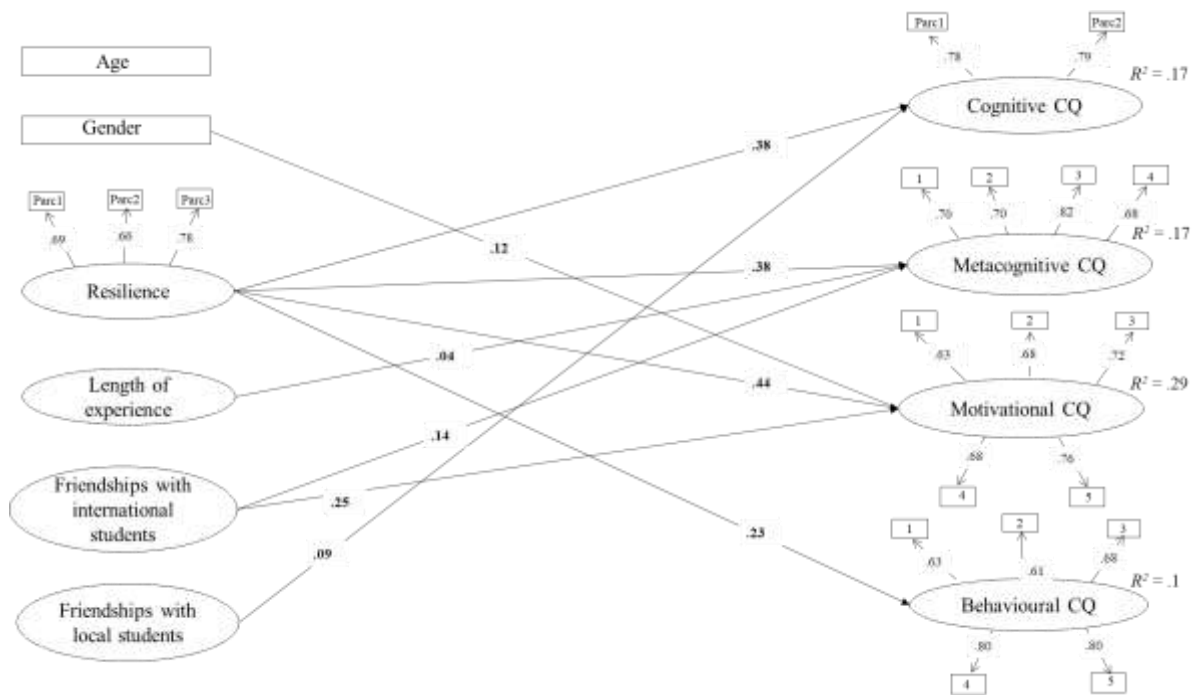
### Full Structural Equation Model

The full SEM of the hypothesized model fitted to data well:  $\chi^2(215) = 765.184; p = .00$ ; RMSEA = .06 (.05; .06); CFI = .92; TLI = .90; SRMR = .05. As showed by Figure 2, the model presented a significant positive relationship between resilience and all dimensions of CQ: the cognitive [ $\beta = .38, p < .001$ ], the motivational [ $\beta = .45, p < .001$ ], the metacognitive [ $\beta = .38, p < .001$ ], and the behavioral [ $\beta = .23, p < .001$ ].

Friendships with local students [ $\beta = .09, p < .05$ ] showed a significant but weak positive relation with the cognitive dimension; while any significant association was found with the other three dimensions. The association between friendships with international students was significant and positive with the metacognitive [ $\beta = .14, p < .001$ ] and the motivational dimensions [ $\beta = .25, p < .001$ ]; on contrary the cognitive and the behavioral dimension were not significant related to friendships with international students. Length of experience [ $\beta = .08, p < .05$ ] was weakly positively related only to the metacognitive dimension. Age did not show any relationships with the four endogenous variables. On the contrary, the model presented a significant and positive relationship between female gender [ $\beta = .13, p < .001$ ] and the motivational CQ.

The model explains 29% of the variation in the motivational CQ, 17% of the variation both in the cognitive and the metacognitive CQ, and only 1% of variation in the behavioral CQ.

Figure 2. Full Structural Equation Model



## DISCUSSION

The main purpose of this study was to identify personal and situational antecedents of four dimensions of CQ among Italian Erasmus students. To achieve this purpose, we hypothesized that resilience (*Hypothesis 1*), length of experience (*Hypothesis 2*), friendships with local students (*Hypothesis 3a*) and friendships with international non-compatriot students (*Hypothesis 3b*) would predict the four dimensions of CQ. The results partially supported our hypotheses.

More specifically, as regards our first assumption, resilience was found to be positively related to all dimensions of CQ (*Hypothesis 1*); therefore, consistent with previous findings on the cultural adjustment process (Mesidor & Sly, 2016; Van der Zee & Van Oudenhoven, 2013), this hypothesis was fully confirmed. Indeed, resilience seems to be associated with all dimensions of CQ, facilitating the transformation of difficulties into learning opportunities (Tugade & Fredroksen, 2004). The nature of these difficulties can vary greatly, indeed, students abroad often have to deal with problems related to: language barriers, differences in values and ideals, discrepancies in learning methods and in views of the teacher-student relationship, initial transition issues (e.g., accommodation, health assurance, financial aspects), discrimination and so forth (Poyrazli & Grahame, 2007; Sherry et al., 2010; Smith & Khawaja, 2011; Wang & Lin, 2019). How well international students adapt depends on how they manage these aspects (Smith & Khawaja, 2011). Overall, resilient people are those who are able to transform difficulties into opportunities for growth (Tugade & Fredroksen, 2004) and, specifically, in cross-cultural circumstances, these people should more easily be able to overcome intercultural barriers and deal with cross-cultural adaptation (Kim, 2017). In turn, resilient people should find it less difficult to build cross-cultural competencies: linguistic barriers could be a source of motivation for improving language proficiency, discrepancies in views of the teacher-student relationship could be read as an opportunity to gain a better understanding of certain social aspects and values and, finally, financial or bureaucratic problems could help students to learn more about the law, economic issues and administrative rules. This means that resilience could be helpful for interpreting difficulties as learning opportunities (Mesidor & Sly, 2016) rather than exclusively as stressful situations. Besides, back in 1987, Adler claimed that, in general, culture shock (Oberg, 1960) should not be viewed as a “a disease for which adaptation is the cure, but is at the very heart of the cross-cultural learning experience, self-understanding, and change” (Adler, 1987, p. 29).

Our second hypothesis, regarding the positive association between length of experience and the four dimensions of CQ, was partially confirmed (*Hypothesis 2*). Contrary to expectations, the length of the experience was not a significant factor for the components of CQ, except to a slight extent for the metacognitive dimension. The duration of sojourn under the Erasmus Program is, in any case,

limited to between a minimum of 3 months and a maximum of 12; therefore, it could be argued that for relatively brief periods of exposure, such as in the case of the Erasmus Program, time does not play a significant role. In any case, as suggested by Varela (2017), who pointed to the need for further exploration of this topic, time plays a discontinuous role. Future studies could investigate this variable in more detail.

According to our third hypotheses, friendships with international students (*Hypothesis 3a*) and with local students (*Hypothesis 3b*) are positively related to all dimensions of CQ. Again, these hypotheses were partially confirmed. Specifically, while friendships with international students were not related to behavioral and cognitive dimensions as hypothesized, a strong relationship was found with both the motivational and metacognitive dimensions of CQ (*Hypothesis 3a*). In other words, social relationships with international students, on the one hand, were positively related to the desire to learn and to stay in culturally diverse environments (Ang & Van Dyne, 2008; Ng et al. 2012) and, on the other hand, to the ability to modify one's own mental model and manage interactions effectively using the cultural knowledge developed. Building a multicultural network (Ward et al., 2001) was positively associated with the motivational dimension of CQ, defined as a positive energy which leads to the discovery of diverse cultures and is related to a feeling of confidence in social situations, in cultural adaptation and adjustment to cross-cultural conditions (e.g., economic, religious, political and so forth) (Ang et al. 2007; Bandura, 2002). Contact with international and non-compatriot students also seems to be positively related to the metacognitive component of CQ, namely the ability to check the accuracy of cultural knowledge, to recognize and eventually adjust cultural knowledge when interacting with people from different countries (Ang et al. 2007; Ang & Van Dyne, 2008; Early, Ang, & Tan, 2006; Ng et al. 2012).

Regarding friendships with local students, the findings only revealed a positive association with cognitive CQ (*Hypothesis 3b*). Contacts with local students during the Erasmus Program were related to the cognitive component of CQ, namely a wide range of knowledge about social practices, economic rules, habits, customs and so forth (Ang et al., 2007; Ng & Early, 2006; Ng et al. 2012). In line with Smith and Khawaya (2011), based on these findings it is possible to distinguish between the diverse beneficial aspects of the various types of intercultural networks both with international and local students (Ward et al. 2001).

As regards the control variables, age was not found to be related to any components of CQ. On the contrary, beyond the scope of our assumptions, female gender was found to be related to motivational CQ. These results were in line with those reported by Maeland & Wattenberg (2017) in their master's thesis, according to which being female is positively related to motivational CQ. One of the elements of the motivational dimension is the pleasure derived from interacting with people

from other countries (Ang et al., 2007), therefore the social component appears to be relevant. As reported by Groves (2005), who conducted a study on female leadership, levels of social and emotional skills were higher among women than among men. Moreover, higher levels of emotional intelligence, which at least partially overlaps with CQ (Crowne, 2009), have also been observed among women than among men (Naghavi & Redzun, 2011). Further research is needed to explore these gender differences in more detail and better explain this aspect.

Overall, in line with the reflections of Ng et al. (2002), the results of our study showed that the four components of CQ are predicted differently. The motivational component of CQ is best predicted by the set of factors selected for this study ( $R^2 = 29\%$ ), and specifically resilience, friendships with international students and gender. The cognitive and metacognitive dimensions seem to be predicted by both situational aspects and personal characteristics ( $R^2 = 17\%$ ). In particular, antecedents of the cognitive dimension were resilience and friendships with local students; while the predictors for metacognitive CQ were resilience, friendships with international students and length of experience. On the contrary, the behavioral dimension was not so well explained by this set of variables ( $R^2 = 1\%$ ), and only resilience appeared to be an antecedent. Probably, on the basis of previous research (Crowford-Mathis, 2009; Engle & Nerht, 2012; Li et al., 2016; Tay et al., 2008), some personality traits and other personal characteristics might contribute to further explain the dimensions of CQ and, in particular, the behavioral component. For sojourns of more than one year, the duration of exposure might contribute to facilitate behavioral CQ, such as in the case of international assignments for work.

## CONCLUSION

This study provided information regarding the role played by resilience and certain situational aspects specific to the Erasmus Program, namely friendships with international and local students and length of sojourn abroad.

As expected, resilience was positively associated with all dimensions of CQ. Therefore, cultivating this would be a good practice. Training sessions could be implemented in order to encourage international students to develop self-awareness about their emotions, strengths and weaknesses before embarking on their Erasmus Program (Mesidor & Sly, 2016).

Regarding intercultural contacts with both international non-compatriot students and local peers, in line with previous considerations by Shannon and Begley (2008), this type of network appears to be related to cultural knowledge and the ability to understand social behaviors and modify one's own mental models. Therefore, the host university should provide opportunities for meeting both local and international peers. For instance, specific orientation programs for Erasmus students



could be implemented and improved at the beginning of the experience and could involve local students for coordinating activities. Regarding accommodation, this could be managed, where possible, so that international students have roommates from different countries.

As well as having practical implications for fostering the development of intercultural networks and building resilience, this study also presents some limitations. First, the cross-sectional design did not allow us to establish the existence of causality relationships between variables (Podsakoff et al., 2012). Further studies should use a longitudinal design, administering questionnaires at different times, for instance before the international experience, immediately after it and then again after six months to monitor changes across time. Alternatively, future research could use the diary study method, asking international students to complete self-administered forms at specified times or time intervals (time-based diaries) (Lavrakas, 2008). Second, the use of self-reported data may have potentially inflated the results (Conway, 2002), given respondents' tendency to answer in a consistent manner. In future studies, it would be interesting to consider other-reported and objective ratings as well. Third, the sampling procedure imposes constraints on the extent to which the findings of this study can be generalized. In future studies, this could be overcome by integrating quantitative and qualitative methods. Finally, in future research, cross-cultural studies should be conducted in order to monitor cultural differences.

## CHAPTER 3

### **What is the value of bilingual education in secondary school? Some reflections on cultural intelligence and its determinants**

#### *Abstract*

This study aims to investigate the value of bilingual education, exploring, in particular, cultural intelligence (CQ) and its antecedents, focusing on a sample of high-schoolers. In particular, the objectives of this study are, firstly, to explore possible differences in terms of CQ among high-schoolers of bilingual and non-bilingual sectors and, secondly, to investigate the relation between scholastic self-efficacy, resilience and exposition to a multicultural environment during education. The research involved a convenience sample of 529 high school students of which 194 (37%) enrolled in bilingual sector. Participants completed an online self-report questionnaire. The findings confirmed that the high schoolers of bilingual sectors had higher CQ levels than the high schoolers of non-bilingual sectors. Furthermore, the high schoolers of bilingual sectors showed higher levels of resilience and perceived exposition to a multicultural environment than their colleagues of non-bilingual sectors. Lastly, the results evidenced the significant and positive association of resilience, scholastic self-efficacy and exposition to multicultural environments with CQ. This study sustains the value of bilingual teaching and its role in globalized labor market.

*Keywords:* bilingual education; cultural intelligence; resilience; scholastic self-efficacy, exposition to a multicultural environment

## INTRODUCTION

Bilingual education traditionally aroused many political, ideological and philosophical issues (Pokrivčáková, 2013). In Europe and especially in U.S.A the history of bilingual education has been related to the immigration phenomenon; many detractors based their critics on ideological positions considering the cultural diversity as a problem to solve (Cummins, 2001; Nieto, 2009). It refers to a teaching method according to which the school subjects are explained in two languages, normally mother tongue and another minority language (Ozfidan, 2017). As suggested by some authors (Crowford, 2004; Cummins, 2001), bilingual education represents a source of benefits not only for minorities but also for the entire society to strengthen the competitiveness in a global economy. Today, indeed, many enterprises are multinationals organizations with production sites and selling points located in various countries of world (Knight, 2004), therefore, multicultural understanding and foreign languages skills could be useful for job (Grasmane & Grasmane, 2011). Employees can be involved in various global work experiences such as corporate expatriate, self-initiate expatriate (SIEs), flex expatriate work, international business travels and short-term assignments (Shaffer, Shaffer, Kraimer, Chen, & Bolino, 2012) and they should have the capability to effectively manage their communication (Ljungbo, 2010; Piekkari & Zander, 2005).

Furthermore, in Europe, the Schengen agreement has facilitated the free mobility across boundaries and, in some countries, such as France, Italy, Belgium, Germany and Austria (European Parliament, 1997), cross-border commuting for work reasons is a widespread phenomenon. According to EU law (No. 1408/71), cross-border commuters are those who work in one country but reside in other one to which they return daily or at least once a week. The borderlands, such as the French Upper-Rhine and Lower-Rhine regions, in which this study was realized, are particularly interested by this phenomenon (Wodociag, Dolce, & Molino, 2019). Specifically, the transmigration phenomenon in Upper-Rhine and Lower-Rhine regions is mainly directed towards Switzerland, Germany, Luxembourg and Belgium (Bertand, 2004; Cacheux, Creusat, & Eichwald-Isel, 2016). Respectively, Switzerland is historically multilingual: French, German, Italian and Romansh are the four official languages (Broy, 2005); the nearest districts to Upper Rhine region are those in which people speak French or German. In Luxemburg, French, German and Luxembourgish are the three languages recognized by the languages law in 1884 (Horner & Weber, 2008). In Belgium three communities can be distinguished: Dutch-speaking community, French-speaking one, and Dutch-French bilingual community (Willemyns, 2002). Therefore, Upper-Rhine and Lower-Rhine regions are bordered by countries in which French and German are predominantly spoken. In these regions, a bilingual education continues to be offered and, if we consider the primary school, has recorded an

increment from 3.5% and 4.5% (in Upper-Rhine and Lower-Rhine) in 2000/2001 to 13.8% and 17.9% in 2016/2017 (Report Evaluation de la politique régionale plurilingue, 2018). As stated above, for reasons related to geographical proximity with countries in which German is particularly spoken, bilingual sector offers mostly the double teaching French-German. This study pursues the objective to explore the educational value of this teaching method, in accordance with the guidelines of Strasbourg Rectorate (2017).

Therefore, in order to investigate the educational value of bilingual teaching our focus was on cultural intelligence (CQ). Indeed, CQ is a form of cross-cultural competence which helps people to engage effective behaviors, to adapt own mental models, to enjoy in culturally diverse contexts and to understand the various cultural habits, costumes, social practices and economic rules of other cultures. Various studies (e.g., Frías-Jamilena, Sabiote-Ortiz; Martín-Santana, & Beerli-Palacio, 2018; Li, Mobley, & Kelly, 2012; McNab & Worthley, 2012) was conducted on college students and on contrary few studies explored CQ among junior high-schoolers, considering, specifically, the bilingual education.

Two main objectives were pursued: (1) to explore the presence of different level of CQ among high schoolers of bilingual sectors and high schoolers of non-bilingual sectors, 2) to investigate the role of some personal characteristic (resilience and scholastic self-efficacy) and a contextual aspect (degree of exposition to a multicultural environment during education) as determinants of CQ.

First, this paper provides an overview about the literature on CQ. Then, through a quantitative methodology, CQ and its antecedents were examining, paying attention to identify possible discrepancies among the two groups of students enrolled in bilingual sectors and students in non-bilingual sectors. Implication for practices for secondary school education are discussed.

## **LITERATURE REVIEW**

### ***Intercultural competencies and CQ***

Darla Deardoff (2006) defined cross-cultural competencies as “the ability to communicate effectively and appropriately in intercultural situation based on one’s intercultural knowledge, skills and attitudes (p. 194)”. Attitudes, knowledge, comprehension, adaptability, flexibility, ethnorelativism, empathy, appropriate communication and behavior represent the main elements of this ongoing process of intercultural development competencies. CQ can be defined as an intercultural competence; the term refers to “an individual’s capability to function and manage effectively in culturally diverse settings” (Ang et al., 2007, p. 337). This capability is applicable to whatever cultural

context, because it transcends cultural boundaries (Ng, Van Dyne, & Ang, 2012). Four dimensions globally define CQ: the cognitive, the metacognitive, the behavioral and the motivational. Therefore, people with high level of CQ should show: a certain level of knowledge about different cultural systems, the capability to manage cross-cultural interactions (Brislín et al. 2006), the willingness to stay in a different country or to use a diverse language, a high degree of openness, good verbal and non-verbal communication skills.

Specifically, the cognitive component refers to knowledge and comprehension about social practices, legal norms, economic rules, habits, costumes, use of linguistic codes and so forth (Brislín, Worthley, & McNab, 2006; Ng and Early, 2006; Ng et al. 2012). The metacognitive dimension reflects higher-order cognitive processes adopted by people to acquire and understand cultural knowledge; metacognitive CQ is the capability to adjust own mental models during and after cross-cultural interactions (Ang and Van Dyne, 2008; Early, Ang, & Tan, 2006; Ng et al. 2012). The motivational component reflects the desire to stay abroad, to interact with people from diverse countries using a foreign language, to be open to experience and discovery; it was described as the ability to direct a positive energy towards learning about culturally diverse systems (Ang et al., 200; Ang & Van Dyne, 2008; Early et al., 2006; Ng et al., 2012). Finally, the capability to appropriately manage a foreign language, tone, posture and facial expressions refer to the behavioural CQ (Ang & Van Dyne, 2008; Ang et al., 2007; Ng et al., 2012).

As showed by Varela meta-analysis (2017) these intercultural competencies can be sustained through both study-abroad program (e.g, Varela & Gatlin-W, 2014; Wood, 2014; Kitsantas, 2004; Savicki, 2012) and at-home instructions (e.g., Bücker & Korzilius, 2015; Eisenberg et al., 2013; Fisher, 2011; MacNab, 2012; Rosenblatt, Worthely, and MacNab, 2013). Bilingual education could be considered as a form of at-home intervention, which similarly to other cases (e.g., Serrano, Llanes, and Tragant, 2011; 2016), insist especially on language competence. Therefore, in line with the findings of studies on at-home instructions (Varela, 2017) which evidenced the positive association of these trainings with intercultural outcomes, we assumed the:

*Hypothesis 1. High-schoolers enrolled in bilingual sectors have higher level of CQ then high-schoolers enrolled in non-bilingual ones.*

### ***CQ and its antecedents***

Many scholars investigated the antecedents of CQ, focusing mainly on sample of college students and employees involved in international assignments (e.g., Crawford-Mathis, 2009; Crowne,

2008; Engle & Nerht, 2012; Frías-Jamilena, Sabiote-Ortiz; Martín-Santana, & Beerli-Palacio, 2018; Li, Mobley, & Kelly, 2012; McNab & Worthley, 2012; Moon et al., 2012; Takeuchi et al., 2005; Tarique & Takeuchi, 2008; Tay, Westman and Chia, 2008; Shannon and Begley, 2008; Uen et al. 2018). Various personal and contextual characteristics were found associated with CQ (Ng et al., 2012).

As regards the personal characteristics many studies focused on personality traits (Ang, Van Dyne, & Koh, 2006; Crowford-Mathis, 2009; Engle & Nehrt, 2012; Li et al., 2016; Moon et al., 2012), investigating especially the role played by openness and self-monitoring. As well as Big Five facets and self-monitoring, other individual characteristics were explored in relation to CQ, such as need for control (Engle & Nerht, 2012; Tay et al., 2008), risk orientation (Engle & Nehrt, 2012) and self-efficacy (McNab & Worthley, 2012). In particular McNab and Worthley's study (2012) conducted a research on a sample of undergraduate and graduate students and found that the general self-efficacy significantly predicted CQ capacities. The authors (2012) explored the construct starting from Bandura's considerations (1977), according to which in social learning contexts self-efficacy can play a role for the development of intercultural competencies. General self-efficacy was defined as "judgment of one's capability to accomplish a certain level of performance" (Bandura, 1986, p. 391). Although McNab & Worthley' (2002) suggested to investigate other forms of self-efficacy more task specific, no study has been performed still now and, in particular, any evidences emerged regarding scholastic self-efficacy. Scholastic self-efficacy focuses on the capability to deal with scholastic tasks, such as the ability to concentrate and to take an exam (Pastorelli & Picconi, 2001); this form of self-efficacy appears particularly salient for high-schoolers, especially for their successful performance.

Therefore, in line with literature (McNab & Worthley, 2012) and adopting the theoretical framework of social learning theory (Bandura, 1977), we hypothesized that:

*Hypothesis 2. Scholastic self-efficacy is related to CQ.*

Although the interest about personal characteristics, resilience is another construct still poorly investigated in relation to CQ. Resilience is the ability to positively react in face of difficulties and to quickly recover to them (Campbell-Sills & Stein, 2007; Luthar, Cicchetti, & Becker, 2000; Masten, Best, a& Garmezy, 1990). Resilience appears in the scholastic contexts an important resource for students' (Masten, Herbers, Cutuli, & Lafavor, 2008; Sierp, 2018) and, furthermore, a tool to manage the schooling drop-out (Mokoena, 2019). The core element of resilience is a positive adaptation to stressful situations which can vary a lot in the life of an adolescent. Schooling performance, conflict relationships with peers, family problems can represent only some examples (Masten et al., 2008). We assumed that resilience can be also related to the capability to effectively manage cross-cultural

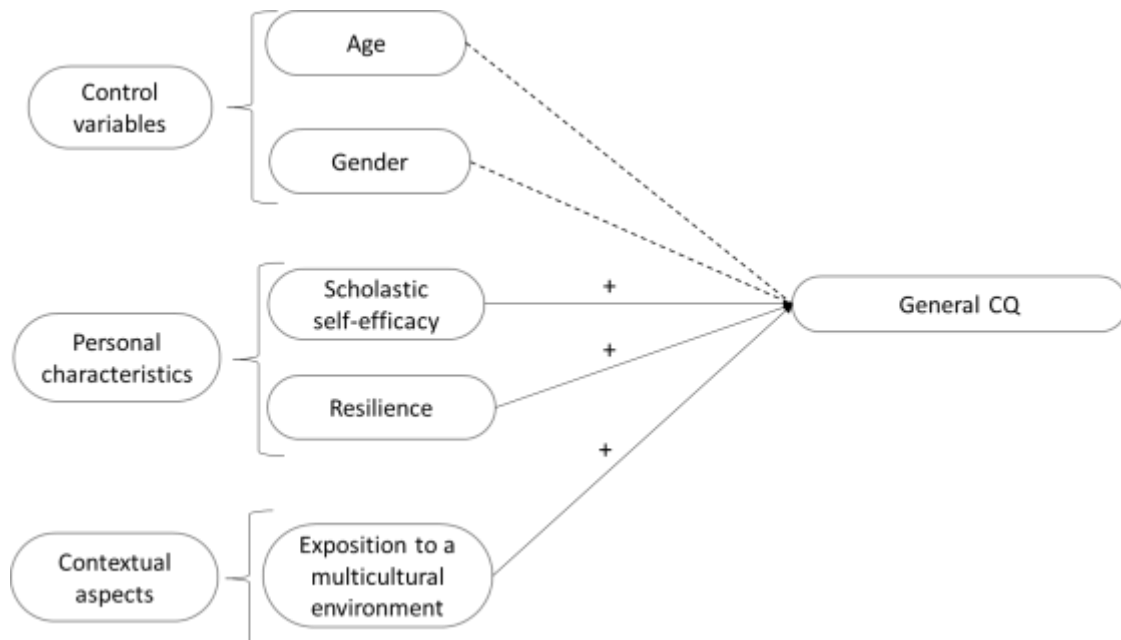
situations, which represent in some cases a source of stress (Poyrazli & Grahame, 2007; Sherry et al., 2010; Smith & Khawaja, 2011; Wang & Lin, 2019). In borderlands, such as Upper-Rhine and Lower-Rhine regions the exposition to intercultural contacts and, in general, to cross-cultural situations occur more than in other contexts (Putsche, 2016). Therefore, we assumed that:

*Hypothesis 3.* Resilience is positively related to CQ.

Finally, various forms of intercultural training, ranging from simulations to case studies, from lectures to web-based training and so forth, when appropriately managed, were associated to an intercultural sensitivity improvement (Landis, Bennett, & Bennett, 2003). Therefore, an exposition to multicultural environment in education can be sustained through various forms of domestic training methods also applicable in secondary schools. Therefore, in line with Landis et al.' reflections (2003), who supported the use of this training process to develop intercultural sensitivity, and accordingly with Varela metanalysis (2017) on positive outcome of at-home interventions, we assumed that:

*Hypothesis 4.* Exposition to multicultural environment during education is positively related to CQ.

**Fig 1.** Model of Hypotheses:



## METHOD

### *Participants and procedure*

A total of 529 high school students, residents in the Upper-Rhine and Lower-Rhine regions of France at the border of Switzerland, Germany, Belgium and Luxembourg took part in this study. The schools selected for this study was 14, the common characteristic of these schools was to provide to student the choice between bilingual or not bilingual sector. The most of bilingual sectors was German-French. In particular, 194 (37%) enrolled in bilingual sector ( $M_{age} = 16.15$ ,  $SD_{age} = .95$ ) and 335 (63%) enrolled in non-bilingual sector ( $M_{age} = 16.27$ ,  $SD_{age} = .83$ ). 75% of bilingual and 73% of non-bilingual students were females.

Participants completed an online self-report questionnaire on the LimeSurvey platform. The voluntary and unpaid participation to the research and the confidentiality of the data were emphasized in the cover letter of the questionnaire. The study observed the Helsinki Declaration (World Medical Association, 2001); since it did not involve medical treatment or other procedures capable of causing psychological or social discomfort to participants. The research was conducted with the approval and supervision of Rectorate of Strasbourg.

### *Measures*

The first sector of questionnaire collected socio-demographic data. In the following section, there is a description of all measures used.

*Cultural Intelligence*: measured by 15 items adapted in French from original CQS by Ang and colleagues (2007), using a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). Four dimensions define the factor-structure of this scale: the cognitive, the metacognitive, the motivational and the behavioral. Cronbach's alpha was .89 for the whole sample, .88 for the bilingual students' subsample and .90 for the non-bilingual students' subsample.

*Resilience*: measured by 6 items adapted in French from Di Fabio and Palazzeschi (2012) (Connor-Davidson, 2006), using a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree); an example item is "I tend to bounce back after illness, injury, or other hardships". Cronbach Alpha was .72 for the whole sample as well as for both subsamples.

*Scholastic self-efficacy*: measured by 8 items adapted in French from Pastorelli and Picconi (2001), using a 5-point Likert scale from 1 (at all) to 5 (completely); an example item is "focus on schoolwork without being distracted". Cronbach Alpha was .87 for the whole sample, .86 for the bilingual students' subsample and .87 for the non-bilingual students' subsample.



*Exposition to a multicultural environment during education:* it was asked to tell how much have you been exposed to a multicultural environment during education, using a single item and a 5-point Likert scale from 1 (not at all) to 5 (completely).

### ***Data analysis***

SPSS25 statistic software was used to perform descriptive data analysis in each sample (bilingual and non-bilingual) separately. Pearson correlations were tested in order to examine the relationships among variables. To assess the factorial validity of each scale, the exploratory factorial analysis (EFA) on the whole sample and a multigroup confirmatory factor analysis (M-CFA) were performed.

In particular, the exploratory factor analysis was conducted using principal component (PC) extraction, eigenvalues  $> 1$  with Promax rotation. Moreover, Cronbach's alpha coefficient was calculated to test the reliability of each scale in the whole sample and in each subsample separately. The analysis of variance (t-test for independent samples) was used to examine differences in the variables' means between bilingual and non-bilingual subsamples.

A multi-group full structural equation model (SEM) was performed using Mplus 7 in order to test the hypothesized model. Age and gender were used as control variables. Indeed, gender presented some significant correlations with the other variables and, furthermore, analysis of variance performed on variables showed significative differences between male and females in the whole sample as well as for each subsample. Furthermore, age presented a significant positive correlation with cultural intelligence in non-bilingual subsample.

For reasons of parsimony, item parcelling technique (Little, Cunningham, Shahar, Widaman, 2002), which allows parcel creation starting from different items referring to a same construct, has been applied for resilience, scholastic self-efficacy and cultural intelligence variables. The method of estimation was Maximum Likelihood (ML). According to the literature (Bollen, 2002), the model was assessed by several goodness-of-fit criteria: the  $\chi^2$  goodness-of-fit statistic; the Root Mean Square Error of Approximation (RMSEA); the Comparative Fit Index (CFI); the Tucker Lewis Index (TLI); the Standardized Root Mean Square Residual (SRMR); the Akaike's Information Criterion (AIC).

## RESULTS

### *Descriptive analysis, analysis of variance and correlations*

Cultural intelligence, as showed in the correlation matrix (Table 1), evidenced a significant positive relation in the whole sample with all variables: resilience ( $r = .43, p < .01$ ), scholastic self-efficacy ( $r = .40, p < .01$ ), the exposition to a multicultural environment during education ( $r = .32, p < .01$ ). Furthermore, scholastic self-efficacy was positively correlated to resilience ( $r = .38, p < .01$ ) as well to exposition to a multicultural environment ( $r = .20, p < .01$ ). Finally, scholastic self-efficacy was positively associated with the exposition to multicultural environment ( $r = .23, p < .01$ ). The control variables did not correlate with the other variables, except for gender which positively correlated to scholastic self-efficacy ( $r = .16, p < .01$ ) and the exposition to a multicultural environment ( $r = .14, p < .01$ ).

Table 1. Means, standard deviations, Cronbach's alphas and correlations among the study variables in the whole sample (N = 529).

	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1. Cultural Intelligence	4.17	1.10	(.89)					
2. Resilience	3.44	.76	.43**	(.72)				
3. Scholastic self-efficacy	3.66	.82	.40**	.38**	(.87)			
4. Exposition to a multicultural environment during education	2.92	1.29	.32**	.20**	.23**	-		
5. Gender (1 = female)	-	-	-.01	-.08	.16**	.14**	-	
6. Age	16.23	.88	.07	-.05	.04	-.05	-.06	-

Notes: Cronbach's  $\alpha$  for the whole sample on the diagonal. \*\*  $p < .01$ ; \*  $p < .05$ .

Table 2 shows the correlations results in each subsample. In particular, for the bilingual students' subsample, cultural intelligence correlated positively with resilience ( $r = .40, p < .01$ ), scholastic self-efficacy ( $r = .50, p < .01$ ) and the exposition to a multicultural environment during education ( $r = .38, p < .01$ ). For the non-bilingual students' subsample, we found similar results: cultural intelligence correlated positively with resilience ( $r = .43, p < .01$ ), scholastic self-efficacy ( $r = .35, p < .01$ ) and the exposition to a multicultural environment during education ( $r = .26, p < .01$ ). The control variables did not correlate with cultural intelligence, except for gender which positively associated with cultural intelligence only in non-bilingual students' subsample ( $r = .15, p < .01$ ).

Table 2. Correlations among the study variables in the bilingual students' subsample (n = 194) and non-bilingual students subsample (n = 335).

	1	2	3	4	5	6
1. Cultural Intelligence	-	.43**	.35**	.26**	-.04	.15**
2. Resilience	.40**	-	.36**	.17**	-.10	.02
3. Scholastic self-efficacy	.50**	.39**	-	.19**	.11**	.07
4. Exposition to a multicultural environment during education	.38**	.22**	.30**	-	.15**	-.04
5. Gender (1 = female)	.05	-.05	.24**	.15*	-	-.07
6. Age	-.04	-.03	.03	.10	-.06	-

Notes: Bilingual students' subsample results are below the diagonal; not-bilingual subsample students' subsample results are above the diagonal. \*\*  $p < .01$ ; \*  $p < .05$ .

Analysis of variance between the two subsamples showed significant differences for all considered variables, except for scholastic self-efficacy: students enrolled in bilingual sectors showed higher level of cultural intelligence [ $t(527) = -2.495, p < .05$ ], resilience [ $t(527) = 2.163, p < .05$ ] and exposition to a multicultural environment during education [ $t(527) = 6.488, p < .001$ ] than high-schoolers enrolled in non-bilingual sectors. As regards scholastic self-efficacy, the difference between the two subsamples was not significant [ $t(527) = 1.362, p = .174$ ].

Table 3. Means, standard deviations,  $t$ -test results for bilingual students ( $n = 194$ ) compared with non-bilingual students ( $n = 335$ ).

	Bilingual Students		Non-bilingual students		$t$ -test
	$M$	$SD$	$M$	$SD$	
Cultural Intelligence	4.32	1.02	4.09	1.08	$t(527) = 2.495, p < .05$
Scholastic self-efficacy	3.72	.79	3.62	.83	$t(527) = 1.362, p = .174$
Resilience	3.53	.74	3.38	.77	$t(527) = 2.163, p < .05$
Exposition to a multicultural environment during education	3.38	2.65	1.21	1.26	$t(527) = 6.488, p < .001$
Age	16.15	.95	16.27	.83	$t(527) = -1.560, p = .119$

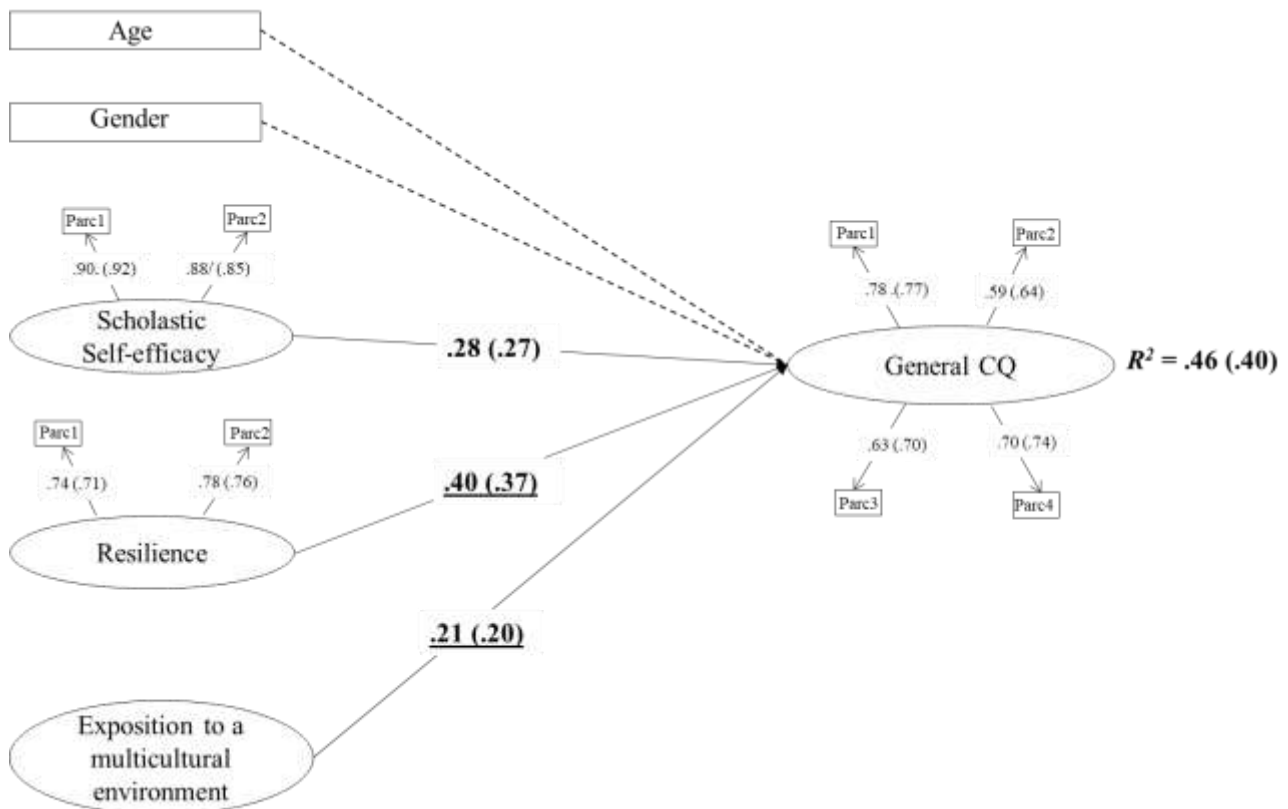
### ***Multi-group structural equation model (M-SEM)***

The multi-group full SEM of the hypothesized model with all parameters constrained to be equal across groups, fitted to the data well:  $\chi^2(93, N_{\text{Bilingual}} = 194, N_{\text{Non-bilingual}} = 335) = 170.619, p < .001$ , CFI = .95, TLI = .95, RMSEA = .06 (90% CI .04, .07), SRMR = .05. Cognitive CQ, metacognitive CQ, motivational CQ and behavioral CQ represent the four component in general CQ.

The model, shown in Fig 2, presented a significant positive relationship between resilience [B:  $\beta = .40, p < .001$ ; NB:  $\beta = .37, p < .001$ ] and cultural intelligence in both subsamples. A positive and significant relation was also found between scholastic self-efficacy [B:  $\beta = .28, p < .001$ ; NB:  $\beta = .27,$

$p < .001$ ] and the dependent variable in both subsamples. Finally, exposition to a multicultural environment during education [B:  $\beta = .21$ ,  $p < .001$ ; NB:  $\beta = .20$ ,  $p < .001$ ] was also found positively related to CQ in both subsamples. As expected, age and gender did not show any significant relationship with the endogenous variable. The model explained about 46% and 40% of the variation in CQ respectively in bilingual students' subsample and in non-bilingual students' subsample.

Fig. 2 Multigroup SEM



**Notes:** the final model (standardized path coefficients,  $p < .001$ ;  $p < .01$ ). Bilingual sample data are out of parentheses, non-bilingual sample data are in parentheses. Underlined data are statistically different between bilingual and non-bilingual. Discontinuous lines indicate non-significant relationships.

## DISCUSSION

This study aimed to examine high-schoolers' CQ comparing the students enrolled in bilingual sectors with those enrolled in non-bilingual ones. Then, this research explored the determinants of CQ, taking into account both personal characteristics (scholastic self-efficacy and resilience) and the contextual aspects, namely the exposition during education to a multicultural environment.

Overall, the findings showed that students enrolled in bilingual sectors have significantly higher level of CQ than high-schoolers in non-bilingual sectors. Moreover, all personal and contextual variables were confirmed to be determinants of CQ. Finally, outside the assumptions the level of resilience and the exposition to multicultural environments were found higher among students enrolled in bilingual sectors than among students enrolled in non-bilingual ones. In the following, we will discuss each of our initial assumption; all hypotheses were fully confirmed.

Our first hypothesis assumed that the level of CQ was higher among students enrolled in bilingual sectors than among non-bilingual high-schoolers. This assumption was fully confirmed. In line with evidences on at-home interventions (e.g., Bückner & Korzilius, 2015; Eisenberg et al., 2013; Fisher, 2011; MacNab, 2012; Rosenblatt, Worthely, & MacNab, 2013), this discrepancy in terms of CQ level among the two groups suggests to further explore the possible impact of this particular form of teaching on the development of intercultural competencies, stressing the impact on behavioral and cognitive component, more related to the use and the awareness of appropriate language and linguistic codes. The cross-sectoral design does not allow to infer causality relationships, nevertheless, starting from this preliminary results, future longitudinal studies can verify the causal relation between bilingual education and non-bilingual one on the development of CQ or other forms of intercultural competencies.

Our second assumption is related to the role played by scholastic self-efficacy as antecedent of CQ (Hypothesis 2). As hypothesized, in line with evidences from McNab and Worthley' study (2012) who found that the general self-efficacy significantly predicted CQ capacities, also this form of self-efficacy, more focused on high-schoolers' tasks, was positively associated with CQ. This positive relation was confirmed both for students in bilingual and non-bilingual sectors.

As regards resilience, the findings supported our third assumption (Hypothesis 3), indeed this variable was positively associated with CQ. In line with literature considerations (Masten et al., 2008; Mokoena, 2019; Sierp, 2018), resilience appears to be a crucial resource for students' not only because, as suggested in the literature, it seems to help the prevention of mental health (Sierp, 2018) and is positively related to return after schooling drop-out (Mokoena, 2019), but also because resilience appears to be antecedent of intercultural competencies. Similarly, to previous results on self-efficacy, this positive association between resilience and CQ was found both for students in bilingual sectors and for students in non-bilingual sectors. By comparison with scholastic self-efficacy for which t-test did not show any significant difference among groups, the level of resilience was higher for high-schoolers enrolled in bilingual sectors than for those enrolled in non-bilingual ones. These results seem suggest that behind the language skill acquisition, bilingual curricula could be related to resilience; further studies could explore the changes across time of this characteristic

and monitor what are the aspects of bilingual teaching which explain the potential positive cascade effect on resilience.

Lastly, our fourth assumption according to which the exposition to multicultural environments during education is related to CQ (Hypothesis 4) was fully confirmed for both groups. This result is in line with the literature according to which participation to various intercultural training (Landis et al., 2003) and at-home interventions seem to be positively related to intercultural sensitivity, and to other forms of intercultural competencies (Bücker & Korzilius, 2015; Eisenberg et al., 2013; Fisher, 2011; MacNab, 2012; Rosenblatt, Worthely, & MacNab, 2013; Varela 2017). Moreover, the perceived exposition to a multicultural environment during education is lower among high-schoolers of non-bilingual sectors than among students of bilingual ones.

The higher level of resilience and the perceived exposition to a multicultural environment for students enrolled in bilingual sectors could suggest why the level of CQ is higher among students enrolled in bilingual sectors than among non-bilingual high-schoolers. These differences may be further examined in future studies, indeed, despite our considerations and assumptions, longitudinal studies should be conducted in order to confirm a causality relationship between variables.

## CONCLUSION

This study provided information about bilingual and non-bilingual students' sample, focusing on CQ and its predictor. Any researches have still explored the relationships between cross-cultural competencies and bilingual education, although bilingual education can be a resource for society (Crowford-Mathis, 2009; Cummins, 2001) because the core objective is to reinforce linguistic competencies of students, strengthening, in turn, their competitiveness in a global economy. The findings showed the key role played by scholastic self-efficacy and resilience as determinants of CQ. In line with Masten and colleagues (2008) considerations, in secondary school the promoting of training program to reinforce resilience is auspicial, as well as scholastic self-efficacy (McNab and Worthley, 2012). Moreover, bilingual education seems to be an element able to contribute for an effective exposition to a multicultural environment; therefore, the promotion of this form of teaching method or other forms of intercultural training (Landis et al., 2003) would be supportive for students to be more able to act and communicate in cross-cultural situations.

Despite the practical implications, this research has various limitations. First, the cross-sectional design which does not allow to infer causality relationships among variables (Podsakoff et al., 2012). In future, longitudinal design can be adopted, monitoring across time, for instance each year from the first class to the final class of secondary school, the changes in terms of CQ, resilience

and scholastic self-efficacy. Secondly, the nature of self-report data does not allow to exclude the risk of common method bias (Conway, 2002); moreover, the administration of this questionnaire was done to a very young sample, investigating complex constructs.

## CHAPTER 4

### **Women and men on the road to top management: international experience in Italian career paths between demands and resources**

#### *Abstract*

This study provides an in-depth subjective reconstruction of international experience in the career path of 37 female and male top managers employed in Italy, using the job demands-resources model. Semi-structured interviews were used to collect data. Participants highlighted the benefits of their international assignments in terms of career advancement and developing managerial and cross-cultural skills. Family issues and cultural differences were frequently cited as challenges by the top managers interviewed. Culture shock and perceived difficulty in managing multicultural teams were reported by both women and men. Men reported experiencing long periods of separation from family more often than women and cited partner's support as a valuable resource. Women are less involved in corporate expatriation in the second phase of their career. Partner's support, autonomy, and welfare policies are considered crucial resources. Moreover, a traditional division of roles seems to persist in Italy. Practical implications are discussed.

*Keywords:* career paths, top managers, global work experiences



## INTRODUCTION

As a consequence of globalization processes, organizations increasingly need leaders capable of managing the complexities of the global economy (Caligiuri & Tarique, 2012) as well as employees equipped to work in multicultural teams and eager to accept different types of International Assignments (IAs; Pate & Scullion, 2018; Shaffer, Kraimer, Chen, & Bolino, 2012). Some studies have reported that female expatriates showed higher level of interaction and work adjustment (Selmer and Leung, 2003) than males. During IAs, male and female assignees have been found to achieve similar performance targets (Caligiuri & Tung, 1999) and experience the same difficulties in adjusting to cultural differences (Selmer & Leung, 2003; Salamin & Davoine, 2015).

Nevertheless, although the labor force participation of women is increasing, they are still under-represented in the highest management positions and are less likely to go on corporate IAs than men (Altman & Shortland, 2008; Insch, McIntyre, & Napier, 2008; Kleinert, 2010; Linehan & Walsh, 2000; Linehan & Walsh, 2004; Pochic, 2005; Tharenou, 2010, Tung, 2004). In 2018, only 4.8% of CEOs at the head of the Fortune 500 List of companies were women. In the European Union (EU), according to the Eurostat report (2019), one manager out of three is a woman. Specifically, as regards the situation in Italy, 36% of managers are women; furthermore, only 9% of senior executives are women, 8 percentage points lower than the EU level (17%). In terms of the employment rate (Italians aged 15-64 years), 68% of men were employed in 2018, compared to 50% of women (OECD, 2018). These data confirm the existence of gender differences in the labor market and that the glass ceiling phenomenon persists, also in Italy.

Although some progress has been made since the early 1980s, international assignments are commonly the prerogative of men and in addition to the glass ceiling, there is also a phenomenon known as the glass border (Linehan & Walsh, 2004; Insch et al., 2008). According to historical data presented in the Global Mobility Trends Survey (2016), women currently represent around 25% of all international assignees. IAs are considered to be one of the most effective mechanisms for developing global leadership skills. Therefore, as suggested by Tung (2004), owing to the glass border, women often do not have the opportunity to take part in such international experiences and, thus, to develop the essential skills in order to become effective global leaders.

Previous studies recommended the use of qualitative methods to investigate the factors and personal characteristics which may affect cultural adjustment of female expatriates compared to males (Salamin & Davoine, 2015). Despite a large number of contributions in the domain of International Human Resources Management (IHRM), few studies have been conducted in Europe (Salamin & Davoine, 2015; Selmer & Leung, 2003), and especially in Italy. Moreover, such studies have mainly

addressed traditional expatriation issues leaving aside alternative forms of IAs (Wodociag, Ghislieri and Desmarais, 2019; Desmarais et al., 2012).

Therefore, this study will attempt to fill these gaps by pursuing two main objectives: (1) to examine the impact of international experiences on male and female career paths in terms of extrinsic career success; (2) to provide a description of the specific job and personal demands and resources related to the different forms of IAs experienced by female and male top managers employed in Italy.

First, this paper provides an overview of the literature on global work experiences. Then, it examines the career paths of 37 top managers employed in Italy, using a qualitative methodology focusing on the specific challenges faced during IAs, and considering the related demands and resources. Finally, some practical implications for IHRM are discussed.

## **LITERATURE REVIEW**

### ***Global work experiences***

In the last 10 years, we have witnessed a differentiation in the forms of IAs adopted by multinational corporations (Pate & Scullion, 2018; Shaffer et al., 2012). Shaffer and colleagues (2012) introduced the term *global work experiences* to include all types of IAs. Indeed, beyond traditional corporate expatriation, employees can be involved in international business travel (e.g., Welch, Welch, and Worm, 2007), flexible expatriation (e.g., Mayerhofer, Hartmann, Michelitsch-Riedl, & Kollinger, 2004), short-term assignments (e.g., Tahvanainen, Welch, & Worm, 2005), as well as self-initiated expatriation (SIE) (e.g., Tharenou, 2010). Moreover, there are cross-border commuters who work in one country but reside in another, to which they return every day, or at least once a week (Wodociag, Dolce, & Molino, 2019). Some scholars have suggested that international careers are moving towards boundaryless careers (Crowley-Henry, 2007). Self-direction and personal values lead to a protean career path (Hall, Yip, & Doiron, 2018), which includes the choice of going abroad.

### ***Barriers to international work experiences for women***

IA is primarily considered a male experience; starting from expatriate research, the glass border has been associated with some misperceptions (Altman & Shortland, 2008; Attia and Melin, 2017; Guillaume & Pochic, 2010; Mériçnac, 2009; Tung, 2004, Shortland, 2009). One of the main faulty assumptions is that women are unwilling to undertake IAs. This belief persists (Tung, 2004; Shortland

2009) although, back in the 1980s, Adler's research (1984) and, more recently, that of Stroh and colleagues (2000) showed the opposite. Furthermore, a recent stream of research (Tharenou, 2003; Tharenou, 2010) revealed the interest among females in SIE.

More specifically, the factors affecting decisions to accept IAs appear to differ according to gender (Tharenou, 2010; Selmer & Leung, 2010; Van der Velde, Bossink, & Jansen, 2005). Tharenou's study (2010) found that women were more willing than men to self-initiate their expatriation to advance their career, to make their CV more competitive in the context of a labor market that is still highly discriminating. Van der Velde and colleagues (2005) found, contrary to other studies, that men were more willing to accept IAs than women, but, starting from these results, the authors explored the set of factors that appear associated with the decision to accept an IA, investigating family issues, particularly the role of children, and job aspects (Van der Velde et al., 2005). Other studies (Linehan & Walsh, 2000; Mayerhofer et al., 2004) have suggested that family issues may be related to the glass border phenomenon. Indeed, in many societies, including Italy, the traditional male breadwinner model, in which the man earns the money and the woman stays at home and takes care of the children, still seems to affect this decision. Nowadays, we are witnessing a transition in which women are developing international and successful careers while, at the same time, having responsibility for caring for their children and the home, generating the risk of a high level of work-family conflict (Crowley-Henry & Weir, 2007; Linehan & Walsh, 2000). All types of IAs raise issues associated with the work-family and work-life balance. Specifically, for dual career-couples, long-term expatriation means, in most cases, relocating the whole family (Linehan and Walsh, 2000; Shaffer et al., 2012; Pate and Scullion, 2018). Moreover, as reported by Pochic (2005), in France men are less likely than women to leave their job to follow their partner abroad.

A further misperception, which has contributed to preventing women from taking part in IAs, is that of considering women unable to face the challenges related to culture shock and working in a foreign environment (Tung, 2004). Providing evidence to the contrary, some recent studies have suggested that female expatriates have a higher level of interaction adjustment than men (Salamin & Davoine, 2015; Selmer & Leung, 2003). Furthermore, the levels of job performance (Sinangil & Ones, 2003) and effectiveness (Bastida, 2018) attained by female expatriates have been found to be similar to those of men.

Finally, a third misperception concerns the presence of foreign prejudice against women. Here too, back in the 1980s, the study by Adler (1987) showed that female expatriates in Asian contexts were accorded a higher status than males.

### *Job demands and resources in global work*

Beyond gender discrimination, both women and men involved in global work have to deal with various challenges. Shaffer and colleagues (2012) used the job demands-resources (JD-R) model (Bakker & Demerouti, 2007) to categorize these. According to the JD-R model, job demands may generate psychological and physical costs while job resources may promote personal growth and attainment of results (Bakker & Demerouti, 2007). Personal resources refer to ways in which individuals perceive their capability to act successfully in the environment in which they work (Bakker et al., 2004).

As regards demands, many scholars have focused on the consequences of these in terms of family life, such as work-family conflict and balance (e.g., Mayerhofer et al., 2004; Linehan & Walsh, 2000; Suutari, Mäkelä, & Wurtz, 2018; Starr & Currie, 2009). International expatriates are often faced with relocating their children and spouses. Specifically, for dual-career couples, managing the spouse's career is a relevant issue; several studies have reported that a partner's willingness to accompany the other on an IA and, more generally, the spouse's support, are positively related to the decision to expatriate and the process itself (e.g., Luring & Selmer, 2010; Linehan & Walsh, 2000; Mäkelä, Käsälä, & Suutari, 2011). As pointed out by Mäkelä and colleagues (2011), in an international context, especially at the start of the assignment, both partners have to deal with various issues: the need to obtain a work visa, the ability to speak a foreign language, managing culture shock, the lack of social networks.

As regards international business travel, flexpatriate and short-term assignments, these forms of IAs often imply family separation (Meyerhofer et al., 2004; Shaffer et al. 2012; Starr & Currie, 2009) rather than family relocation, which in any case poses a real challenge for organizations and for workers. Frequent travel gives rise to various issues related to the quality of time spent with family, the management of childcare and babysitting, the planning of unforeseen emergencies and so forth (DeFrank, Konopaske, & Ivancevich, 2000). Furthermore, family is not the only stressor for business travelers; indeed, the extent and intensity of travel, the quality of accommodation and communication, frequently having to attend social events, and other job-related factors such as worrying about work building up at home and achieving the required performance level, are also important sources of stress (DeFrank et al., 2000). Expatriates in a new work environment also have to deal with various work role stressors (role ambiguity, role conflict, role novelty) and situational stressors (lack of language fluency, national cultural novelty, lack of promotion, lack of free choice) (Kraimer & Wayne, 2004; Shaffer et al., 2012).

In the light of these demands, organizations can support workers by creating helpful conditions, for example fostering support by colleagues and supervisors (Desmarais et al., 2012) and perceived organizational support (POS: financial, career, adjustment) which have been found to be predictors of expatriate success (Kraimer & Wayne, 2004). These resources could also support the management of cultural demands; indeed, expatriates often experience so-called culture shock (Oberg, 1960), which concerns various aspects of integration into the new environment, not just the actual work. Similarly, people who make frequent business trips can feel disorientated when having to interpret different cultural codes and, in addition, they have little time to manage the cultural adjustment (DeFrank et al., 2000).

Various studies have investigated these issues, but few have considered international top management in the Italian context. One rare example is Cazorzi's study (2018), that used the case of a multinational company with its headquarters in Italy to investigate the strategies adopted by Italian expatriates in a French branch. As reported in the Introduction, the glass ceiling phenomenon is particularly present in Italy; thus, the present study intends to fill the gap in the literature by analyzing the role of top managers' international work experience and potential differences between women and men.

## **METHOD**

### ***Participants and procedure***

The sample consisted of 37 top managers (16 women and 21 men). Their average age was around 51 years for men ( $SD=4.54$ ) and women ( $SD=5.30$ ). As regards their family status, 11 women and 15 men had a partner and children; 2 women and 2 men had a partner but no children; 1 woman was single without children; and 1 man was divorced without children; 1 man was divorced with children; the rest (2 women and 2 men) preferred not to declare their family situation. The employment sector was heterogenous.

Table 1. Type of IAs

<b>Type of IAs</b>	<b>Women</b>	<b>Men</b>
Corporate expatriation	8	10
SIEs	4	6
Short-term assignments and flexpatriate work	3	1
International business travels	10	4

Table 2. Corporate expatriation destinations

	<b>Women</b>	<b>Men</b>
<b>Destinations</b>	Australia, UK, Switzerland, Morocco, USA, Germany, France and Luxembourg	Israel, Holland, USA, Czech Republic, Switzerland, France and Spain, Portugal

In order to explore the reconstruction of international work experience in the career narrative, a sample of top managers employed in Italy were contacted by e-mail and phone by the researchers in order to be interviewed. The voluntary and unpaid nature of participation in the study and the confidentiality of data were emphasized; all interviews were conducted by professionals after obtaining the participants' informed consent. During the individual semi-structured interviews, participants were asked to talk about their career paths. All the interviews were recorded and transcribed in full; the participants were offered the chance to re-read the transcription of their interview. All interviews lasted on average one hour. The structure of interview is in the appendix.

### **Data Analysis**

QSR International's NVivo 12 qualitative data analysis software was used to examine text, compare transcriptions, code and identify subsidiary themes, present data. Specifically, using a descriptive exploratory approach (Whitehead, 2012; Harding & Whitehead, 2012), the transcripts were repeatedly read, successively an initial code was generated and then themes were identified. Qualitative data were coded and grouped into themes taking into account Shaffer and colleagues' review (2012). In particular, to examine the career consequences we focused on extrinsic career success: career competencies and advancements. Furthermore, as suggested by authors (2012) career challenges were analyzed considering the framework of the JD-R model (Bakker and Demerouti 2007; Shaffer et al., 2012).

## **RESULTS**

### ***Extrinsic career success factors: skills development***

IAs were generally experienced by both women and men as a turning point on the path to career success. Moreover, a positive relationship between international work experience and development of managerial skills was emphasized. A certain sensitivity in relation to some business topics and the adaptation of new visions and methodologies were frequently cited:

*I've had the great fortune to have been working in international contexts since I was young. [...] This has allowed me to develop some characteristics that I think have helped me a lot to deal with business topics (Marco, man, 47 years old).*

*One of the key elements was a global style of leadership, not just an Italian one, but an international style of leadership. This was the result of my professional experiences in diverse countries and, especially, of responsibilities in Europe but also in Australia, and New Zealand from a financial point of view (Ezio, man 51 years old).*

*This consolidation of international experience allowed me to have chosen as a candidate and then as the winning candidate for the position here in Italy. (Marta, 47 years old)*

International experiences gave female and male top managers opportunities to meet leaders from other countries. In some cases, the style of leadership of these managers was taken as a model and considered a source of learning:

*[...] In my opinion, my German boss taught me a lot because he was one of the most enlightened people (Gabriele, man, 46 years old)*

*The greatest expression of leadership was from an English boss, who I had 5 years ago. I found international sensitivity, engagement, and enhancement, as well as the continuous challenges and competition to be valuable and effective resources (Marco, man, 47 years old).*

Although global work experiences are often very challenging, they are an opportunity to learn more about other cultures, become aware of different mental models, integrate these and develop a critical spirit:

*I found a big difference between American multinational companies and European ones. There's a more hierarchical structure in Italian companies, whereas in America they adopt a more meritocratic approach. In American companies, decisions are taken collectively. [...] (Luca, man, 51 years old)*

Openness, listening, intercultural sensitivity, improvement of cross-cultural competence are all core personal resources. All cross-cultural competences are necessary in order to manage a multicultural team well. They represent a challenge and hindrance demand for leaders, but, at the same time, a valuable resource for organizations:

*I had a team of people who all had an American passport, but were of different nationalities. The USA attracts and welcomes workers from diverse realities, people from the East, China, India, South America. All are under the umbrella of the USA, but there are different cultures. This is another challenge for the organization of work, tasks and feedback management (Adriana, woman, 53 years old).*

In managing this type of complexity, participants sometimes reported having adopted a certain “forma mentis”, fully integrating the cultural models of other countries, as pointed out by several participants:

*My first experience abroad was with Dutch people and, therefore, with a strong north-European imprint. Ever since I was young my forma mentis has been forged by this systemic attitude, action planning, and a structured organizational vocation.* (Marco, man, 47 years old).

### ***Family challenges posed by international experiences***

Despite the positive aspects associated with IAs, female and male top managers also emphasized the challenges related to global work experiences. They frequently cited issues related to family management. The process of making the decision about whether to accept or refuse IAs emerged as a particularly important family matter. Indeed, female and male participants reported various concerns about family relocation or separation from the family. As regards relocation, in the case of expatriation, for dual-career couples, the loss of the partner’s job was cited as one of the main concerns. In one case, a participant reported that he had chosen not to take up an international assignment for the sake of his wife’s career:

*[...] for family reasons and in agreement with my current wife, I’ve always known and said that I wasn’t available for that kind of mobility. My wife has her career, she’s a doctor, and she wanted to have a career and she said “no, we’re not leaving Italy”* (Fabio, man, 56 years old).

The decision to expatriate is certainly influenced by various factors and it is often perceived as an opportunity to get ahead. As stated above, family, particularly the partner, plays an important role in the decision. To that extent the decision-making process is almost always partially influenced by some cultural paradigms of family. In this regard, it was pointed out:

*Culturally, men accept the idea of having a wife who’s a career woman, but they also want a wife who’s present. It’s really difficult and many women, at some point, lose the will and stop. They stop because being in charge of two lives [work and family] is really hard. And the situation gets even worse when they have to travel.* (Simona, woman, 52 years old).

Overall, reference was made to concerns about the overload of responsibility in the work and family domains:

*Italian women who work still have to run the home and take responsibility for the extra work. [...] Even today, Italian women still accept that they are the parent of reference, responsible for doing the housework and caring for their own and their partner’s elderly parents* (Martina, woman, 57 years old).



Difficulties in fulfilling family and work tasks often arise because of frequent international business trips which result in the family being temporarily separated. Therefore, work-family balance is a concern for women involved in IAs, and women sometimes are forced to choose between family and career, as highlighted by one female participant:

*My colleagues who manage markets abroad have to choose. When you manage markets, you might even have to stay away for 3 weeks in a month. It isn't impossible, because if a woman wants to, she can combine everything, but it's hard balancing work and family. [...] The mindset here is that, if there has to be a choice, the man's career comes first (Claudia, woman, 46 years old).*

Moreover, when having to make the decision, the woman's perception that it is difficult to have a successful career means that, in many cases, the man's career takes preference, as happened to one participant when considering whether to agree to move to the USA:

*I remember that we were very young, I was 34 and she said to me: "it's clear that, of the two of us, in a male-dominated system like Italy, you're the one who'll be able to have a career and so there's no point in me trying to join the race". For this reason, she supported me in this objective (Mario, man, 58 years old).*

In any case, the increased presence of dual-career couples represents a new challenge for HRM:

*The other problem is female work, I'm not saying that women's work is a problem, I'm saying that the fact that both women and men work represents a challenge for society, in terms of managing their expatriation. [...] traditionally it was men, and not women, who worked. Now, we're in an era in which everyone works. Managing dual-career couples will also be difficult because the number of expatriates willing to relocate will be limited. (Marcello, man, 48 years old).*

For women, family separation mainly occurs in the case of international business travel and in most cases this separation lasts a few days. On the contrary, for men, in some cases, expatriation may involve the decision to be separated from their family for quite a long period of time. Three male top managers reported their experiences: two of them stayed for one year in the USA and Switzerland, respectively, before deciding to relocate the whole family; another one reported having spent 10 years in France alone, maintaining a long distance between him and his wife and daughters. Some participants referred to their short assignments or frequent business trips, stressing the sacrifices and difficulties associated with being far from their family:

*For nine months I returned home once a month or every three weeks; it was a 12-hour journey and when I was there it wasn't particularly peaceful (Francesco, man, 57 years old).*

*The barriers are personal. I left my homeland, my friends, my family, I missed out on two years of my son's life as he was growing up; I traveled for 11 years, 67% of my time. This meant making sacrifices and I put my personal life at risk, it's inevitable (Michele, man, 48 years old).*

By comparison, examples of women who relocated alone without their partner were rare, and none of these were women with children. Some female top managers reported having lived alone in Italy, while their partners lived abroad. This was the case of Camilla, who had a “double experience” as an expatriate's spouse and as an expatriate herself.

*When my husband left for Dubai, he stayed there for two years and I stayed in Milan with my son. I could've gone with him but he didn't want me to. When I was offered an assignment in Paris, my husband came with me. We realized that we no longer wanted to live apart (Camilla, woman, 49 years old).*

As stated above, women tend not to be separated from their children for long periods, unlike their male counterparts. Nevertheless, women are often required to travel abroad on business and this means briefly being separated from their family. For these reasons, women cited the need to balance frequent trips with family responsibilities:

*When I travel, I try to be away for the night as little as possible and only do so when I have important international meetings. What I try to reduce is the number of nights away, but, if I know the dates beforehand, which I usually do when important meetings are involved, I still manage it so that my husband is at home, therefore at least one of us is at home for the kids. This is a fixed rule in our family [...] (Mirella, woman, 43 years old).*

Among participants, female top managers often mentioned feelings of guilt, fear of their children feeling abandoned, fatigue as the result of trying to be a good worker, mother and wife:

*In my opinion, in order to perform the various roles of woman, mother, wife and manager [you have to] accept that you can't be perfect, because if you want to be a “wonder woman” you'll eventually break down and become frustrated, and with your first child you feel that everything you do is wrong, you feel guilty all the time...in the end you just have to accept that sometimes dinner won't be ready; you can order a pizza, that's fine (nobody's going to die), you have to accept that you need the help of a nanny (Mirella, woman, 43 years old).*

*[My husband] helped me allowing me to work on my passion, to be away and to manage the family. I had a great sense of guilty because I feel that I am not able to give enough time to my children. (Valentina, 57 years old).*

### ***Social and partners' support***

This feeling of guilt seems to be moderated by the presence of a support system (for example sisters, nannies and partners). Indeed, if, on the one hand, family represents a source of demands for workers involved in IAs, on the other, family, and especially the partner, is an essential resource, and therefore choosing a “good husband” is considered to be important:

*I chose a man who could give me assurance that my son wouldn't feel as if he'd been abandoned. [...] I chose a husband who wasn't ambitious, who had his own company but more free time, who was open, able to accept my role and the fact that I was very busy, even in my free time, over the weekends, and that I would be away on business and might not be back in the evenings. He accepted and respected this and we built our relationship on that basis (Antonia, woman, 50 years old).*

*My advice to all women would be to choose their partner carefully (Sofia, woman, 58 years old).*

Even men stressed the positive role played by their partner:

*I found a person who, even though we'd only known each other for a couple of months, supported me immediately. She didn't simply say “go”, but she said “I'll come with you” (Alessandro, man, 51 years old).*

By comparison with women, men more often cited good fortune in having found a supportive partner, rather than making an active choice:

*I had the good fortune to have a partner, who's been my wife now for 20 years, who's always gone along with all my choices, even when these involved difficulties in terms of managing the family. She's always tried to facilitate and support my desire (not my ambition) to move forward (Giulio, man, 52 years old).*

*I've had the good fortune to have a partner who shared my same expectations, she was following a similar path and was able to understand (Michele, man, 48 years old).*

In any case, good fortune was cited by both women and men (cited 26 times by 16 participants) and, overall, a certain level of external locus of control and gratitude toward partners emerged.

### ***Cultural challenges of international experiences***

Global work experiences are not only demanding in terms of family matters. Indeed, overcoming culture shock, managing multicultural teams, and adapting to different cultural practices are also challenging aspects. As suggested by one female top manager, cultural differences are sometimes underestimated, nevertheless they represent sources of challenges and difficulties:

*As Europeans we think we know about American culture because we watch it on television, but in actual fact, American culture is much more distant from ours than it seems, it's more different*

*than it looks. In my opinion, this aspect was the most challenging, it really was a cultural challenge (Adriana, woman, 53 years old).*

Some top managers described experiencing a culture shock in the first phase of their experience abroad:

*The first year was really tough from a personal point of view [...]. 90% of the people at the workplace were German [...] thus I experienced a culture shock [...]. In Germany there was no empathy, no team, hierarchical power (top-down), all these aspects made me sad. I also lost weight. It got me down because I was unable to accept the situation (Mirella, woman, 43 years old).*

Other participants focused on the difficulties of holding a position as a foreigner, breaking down cultural stereotypes.

*An Italian who holds a top management position in an American company does twice as much work to overcome the stereotypes that are often associated with foreigners (Michele, man, 48 years old).*

*The most difficult experience was running a German business, and I was there for three years. It was hard to be accepted as an Italian, that wasn't easy. I was fortunate in that I'm half-Austrian, and so I'm familiar with the culture and it was only a matter of time before they accepted me and those were extraordinary years (Sara, woman, 58 years old).*

### ***Welfare system, organizational support and job resources***

Alongside the presence of a supportive partner, living in a country with a good welfare-state was recognized as a key aspect in order to achieve a better balance between work and family. Italy is often compared with other countries and its welfare policies are often deemed inadequate to sustain a good work-family balance. Overall, perceptions about the absence of welfare policies or other types of organizational support are felt as a limitation on parenthood. A female top manager highlighted the combined role played, on the one hand, by welfare policies for reconciling parenthood and employment and, on the other, by colleagues' and organizational support:

*An international environment which supported me because I wasn't the only one in that position ... because I was surrounded by other women like me and being in a context like that, on the one hand, allowed me to feel that it was more normal, having to juggle my life around a little bit, on the other hand, I must say, from this point of view, Belgium is a very advanced country, way ahead of the United Kingdom, the USA or Italy. In Belgium, 70% of women return to work after maternity leave. This means that people are well organized, there are solutions in place that make it possible (Martina, woman, 57 years old).*

As well as non-work resources, there are also some job resources that should play an important role. Organizational policies supporting parenthood, especially new models of work, like smart working arrangements, that offer flexibility in the management of time and workspace, are considered important factors:

*With my role, I'm fortunate to be able to manage how I work in terms of when and where, with a PC you can work anywhere. [...] I'm a member of the Board and so I have to travel but I can plan these trips myself (Claudia, woman, 46 years old).*

## DISCUSSION

This research aimed to explore the subjective reconstruction of the career path of some top managers employed in Italy, focusing on the role played by international experiences. It also investigated the various challenges experienced by women and men as well as their consequences on career advancement and the development of managerial and intercultural skills. Diverse global work experiences were considered: corporate expatriation, short-term assignments, international business travel, self-expatriation, and flexpatriate work.

As regards the consequences of global work experiences, in line with other studies (Benson & Pattie, 2008; Cerdin, 2008; Tharenou, 2010), numerous top managers pointed out the benefits in terms of career advancement and empowerment of global leadership skills. In detail, thanks to IAs, top managers often reported having met foreign supervisors and having learned and integrated their leadership styles.

Despite the positive consequences, consistently with previous studies that focused more on traditional expatriation (e.g., Linehan & Walsh, 2000; Kraimer & Wayne, 2004; Shaffer et al., 2012), the participants two macro-challenges: family issues (and private life in general) matters and managing cultural differences.

As regards family challenges, both separation from family and family relocation represent relevant demands and possible sources of stress for workers (Haslberger & Brewster, 2008), also in case of brief business trips (DeFrank et al., 2000). In particular, relocation, for instance, involves repercussions on the partner's job and on children's integration into a new school environment.

Men reported, more often than female counterparts, having relocated with their family or being separated from their family for a long period as a consequence of corporate expatriation or SIE. On the contrary, no female top managers reported having relocated without their family, leaving their partner and children alone. These elements shed light on some trends. Firstly, women appeared to be more willing than men to leave their job for their partner, reinforcing the glass ceiling effect (Tung,

2004). Indeed, in many cases, as reported by both men and women, there is still a tendency to privilege male career paths over female ones. Secondly, when men decide to leave without their partner or children, so that the partner's job is preserved, for men this means an extended period of separation from their family and, for women, a period of overload both in terms of work and parental responsibilities, maintaining, in any case, the traditional role divisions (Crowley-Henry and Weir, 2007).

Therefore, for women, there is a tendency to concentrate corporate expatriation or SIE experiences more in the first phase of their career, in order to have more opportunities and to develop their careers (Tharenou, 2010).

Although, in the second phase of their career, women are less involved in corporate expatriation or SIE once they have found a partner or had children, they frequently travel for business, which implies being separated from their family, even if just for one day (Espino, Sundstrom, Frick, Jacobs, and Peters, 2002). This type of separation seems to trigger different emotional states in women and men. In particular, back in 2000, Linehan and Walsh claimed that, in Europe, senior female managers often experienced feelings of guilt, worried that their children might feel abandoned and considered themselves not to be good wives or mothers, and even today, female top managers in Italy continue to report similar feelings. The reason might be at least partially attributable to a persistent model, in Italy, according to which the woman is the main, and sometimes the only person responsible for raising children, taking care of elderly parents and keeping house (Linehan & Walsh, 2000). When men talk about being separated from their family for a long period, they more often cite the sacrifices they have to make, the difficulty of moving on without their partner, the physical fatigue of managing trips back home.

Family is a source of demands, but also represents a valuable resource; in line with the findings of other studies (Lauring & Selmer, 2010; Linehan and Walsh, 2000; Mäkelä, Käsälä, & Suutari, 2011), both male and female participants underlined the importance of a supportive partner. In this regard, female top managers pointed out the importance of choosing a "good husband", while men cited their good fortune in finding a supportive wife. The need felt by women to actively choose a "good husband" seems to suggest a perceived difficulty of finding a man who would be supportive, in a country like Italy where traditional role divisions still persist (Ranci & Pavolini, 2015).

As well as family support, the participants in this study (especially women) considered other job and organizational resources to be positive, including: a certain level of autonomy in managing time and space, and new models of work such as smart working. Other studies (e.g. Desmarais et al., 2012; Kraimer and Wayne, 2004) have shed light on the positive role played by job resources, such as the support of colleagues and supervisors and POS. In addition to the organizational support

system, especially in case of expatriation, female top managers stressed the importance of effective welfare policies in the countries to which they relocated. In this regard, in Europe, there continue to be significant differences among the various countries; indeed, welfare policies mirror each countries' family paradigms, which can be more traditional or more egalitarian (Kleinert, 2010; Ghislieri & Colombo, 2014; Ranci & Pavolini, 2015).

In addition to family issues, the other challenge strongly related to IAs is that of managing cultural differences. First of all, both male and female participants cited the culture shock (Oberg, 1960) experienced in the first phase of expatriation. As regards the work, the cultural diversity of team members represents, on the one hand, a job demand for leaders but, on the other, a job resource for organizations: multicultural teams are acknowledged to be creative (Crotty & Brett, 2012). As shown by the top managers' narratives, managing such teams is not easy and requires cross-cultural competences developed through IAs (Caligiuri, 2012), also in the case of short-term assignments which require a rapid cultural adjustment (DeFrank et al., 2000). Thus, the ability to move within various contexts and operate within diverse cultural settings appears important (Ang et al., 2007).

## **CONCLUSION AND PRACTICAL IMPLICATIONS**

This study has provided an insight into the career extrinsic career success factors and the challenges associated with different types of IAs, not only traditional expatriation. Moreover, our study adds to the literature because it examines, with an eye toward gender differences, the narratives of male and female top managers (Managing Directors and CEOs) employed in Italy, a country where this stream of research is not still very extensive. This work may be helpful in guiding specific HRM practices to facilitate the effectiveness of global work experiences and avoid detrimental consequences on well-being (Bhanugopan & Fish, 2006; Wodociag et al., 2019), as well as early termination of expatriation and repatriate turnover, which in turn is a source of costs for firms (Pinto, Cabral-Cardoso, and Werther, 2012).

For this purpose, in the light of matters such as family relocation or separation, especially in terms of supporting parenthood, companies could provide certain services such as: financial support, assistance with housing relocation, support for children's schooling, career counseling for partners. As reported by Kraimer and colleagues (2001), these types of support are related to expatriates' general adjustment. Moreover, especially for women, new forms of work such as smart working arrangements could be implemented. Smart working enables flexible management of time and workspaces, providing a certain degree of autonomy perceived as a relevant job resource for all kinds

of IAs. In addition to organizational support practices, in Italy there is a need for change at system level, reinforcing the welfare state and moving toward a more egalitarian family paradigm.

As regards the management of gender differences, considering cross-cultural competences as personal resources, pre-departure training could be implemented in order to reduce the culture shock and facilitate the management of multicultural teams (Bennet et al., 2000). Moreover, in order to better support workers career and psychological counseling as well as cross-cultural coaching (Abbott, 2014) could be provided.

Finally, considering the fact that expatriation or short assignments are easier to manage in the early stages of a career, often characterized by fewer family matters, IAs could be proposed to young talents in particular, with a view to empowering their skills as future global leaders (Guillaume & Pochic, 2010).

Despite the practical implications of this study, there are some limitations that need to be taken into account. First, the small sample size. In the future, quantitative research should be conducted to test our findings on a larger sample. Second, all the top managers in our sample were employed in Italy, who come from a country where few studies have been carried out, that is not very internationally oriented and with a traditional paradigm of family. Future cross-cultural research could be carried out to compare the Italian system with others. Third, the interviews asked participants to provide a retrospective narrative of their experience. A longitudinal design or a study with a diary approach would be useful in order to monitor the changes across time and the impact of certain job resources and demands on specific outcomes.



## GENERAL CONCLUSION

Globalization, internationalization of organizations, diversity of contracts, changes in career paths, new technologies, have made the current labour market more complex, dynamic and unstable (Spilerman, 2008). Technical skills are not enough to respond to labor market requirements (Andrews & Higson, 2008; Moore & Morton, 2017; Robles, 2012), on the contrary a mix of professional , intercultural and transversal competencies skills are required (Dunne, & Carré, 1999; Chamorro-Premuzic et al., 2010; Johnson, Lenartowic, & Apud, 2006; Luzzatto et al., 2012; Ritter et al., 2018; Robles, 2012; Wodociag, Lutz & Ghislieri, 2019).

In details, one of the main aims of this dissertation is to give a significant contribution to the understanding of the intercultural competence, and in particular to cultural intelligence (CQ). Overall, the intercultural competencies allow to act and communicate appropriately and effectively in diverse cultural contexts with people from different countries (Deardoff, 2006) and to manage the complexity related to global economy as well as the cultural diversity of multicultural team (Bartel-Radic, 2004; Caligiuri & Tariqui, 2012).

Specific goals of the studies presented above were: a) to explore the impact of Erasmus program on the development of CQ as well as other traversal skills and resilience; b) to investigate the role of some personal and contextual antecedents of CQ, considering both mobility for study and at-home instruction c) to describe in-depth subjective reconstruction of international experience in the career path of female and male top managers employed in Italy, exploring the skills development and the challenges associated with global work experiences.

*Chapter 1* aims to verify the positive impact of Erasmus program on the development of CQ, resilience and transversal competencies, comparing a sample of Italian outgoing Erasmus students and a control group of college students. In this regard it was used a mixed-method approach, because of it quantitative and qualitative data were combined to better explore the “cross-cultural learning process” (Deardoff, 2006).

The hypotheses were partially confirmed. The cognitive dimension of CQ increased across time but only for Erasmus students’ group, suggesting an impact of the abroad experience on development of this facet of CQ. The other dimensions did not change significantly across time in both groups. Moreover, Erasmus students subsample showed a weak, but significant, increase of resilience, on the other hand the level of resilience of control group did not enhance across time. Finally, levels of all transversal competencies of Erasmus students increased exponentially across time, on the contrary,

the same was not observed for the control group. Qualitative results seem to suggest the activation of a cross-cultural learning process.

In line with other evidences (Roy et al. 2019; Varela, 2017), the findings seem to confirm the positive effects of Erasmus program on resilience and skills development. These findings seem to meet the expectations of Bologna process 2020.

*Chapter 2* attempts to shed more light on CQ by investigating its potential antecedents. In details, the study investigates if resilience, intercultural network and length of experience are positively related to the four dimensions of CQ.

Study findings showed the strongly role played by resilience, positively related to all dimensions of CQ. The other hypotheses were only partially confirmed. In particular friendships with international students showed a positive relation with the motivational and the metacognitive dimensions, whereas friendships with local were weakly associated only with cognitive CQ. Finally, the length of experience showed a weak positive relation only to the metacognitive dimension.

These findings provide general guidelines useful for academic institutions. Indeed, training programs to reinforce resilience before the departure of Erasmus could be useful (Mesidor & Sly, 2016). Moreover, the host university, through specific orientation programs or accommodation services, should provide opportunities for meeting both local and international peers.

*Chapter 3* intended to explore the value of bilingual education, exploring the possible discrepancies in terms of levels of CQ of a sample of high school students enrolled in bilingual sectors and high school students enrolled in non-bilingual sectors. Further the objective was to investigate the role of scholastic self-efficacy, resilience and exposition to a multicultural environment as antecedents of CQ.

This study was conducted in a specific context, namely the Upper-Rhine and Lower-Rhine regions, at the border of countries where German is the language most spoken, such as: Switzerland, Luxembourg, Germany, Belgium. This region is affected by an intense cross-border commuting (Bertrand, 2004; Wodociag et al., 2019), a specific type of global work experience which requires to employees to work in a country and to reside in another one.

The findings confirmed all hypotheses. In particular, high schoolers of bilingual sectors showed a higher level of CQ than their colleagues of non-bilingual sectors, as well as a higher level of resilience and perception of exposition to a multicultural environment. Moreover, scholastic self-efficacy, resilience and exposition to multicultural environment was found positively related to CQ.

These findings suggest to better explore, with longitudinal or diary study, the impact of bilingual education on development of intercultural competence. These preliminary results seem to suggest a positive relation between exposition to a multicultural environment during education and CQ, sustaining the value of bilingual education.

*Chapter 4* aims to explore the subjective reconstruction of career paths of female and male top managers, focusing on the role played by global work experiences (Shaffer et al., 2012).

The findings showed both the benefits and the challenges associated to an international experience. The benefits were mainly related to the skills development. The challenges concerned both family and cultural issues. Furthermore, social and partner's support were considered by female and male top managers particularly relevant for an effective managing of international experience. For women other identified important aspects are the organizational support, the autonomy and the presence of a supportive welfare system.

Therefore, for practical implication financial support, assistance with housing relocation, support for children's schooling, career counseling for partners could be useful (Kraimer et al., 2001). Furthermore, also international mobility for work seems to be related to skills development and especially to the empowerment of intercultural competencies.

### ***Limitations and needs for future research***

Despite the practical implications described for each study, this dissertation has some limitations. The first limitation is represented by the cross-sectional design of two studies presented above. In these two cases, we cannot infer causal relationship among variables (Podsakoff et al., 2012). The second limitation is that all quantitative studies used only single-source self-report data which may have potentially inflated the results and does not exclude the risk of common method bias (Conway, 2002). The third limitation is represented by the small size of control group of first study which limits the generalizability of findings; in future an increase in the number of participants for the control group may increase confidence in the findings. The fourth limitation concerns the lack of a third time to control the maintaining across time of levels of CQ, resilience and transversal competencies. The fifth limitation concerns the qualitative nature of the fourth study, in future, starting from these preliminary results, mixed-method design will be implemented.

In future, cross-cultural studies will be carried out to better explore these themes. Lastly, following the recommendations of Roy and colleagues (2019), more attention to employment outcomes of short-term international mobility may be paid.

### *Implications for practice*

All in all, in line with literature (Guillaume & Pochic, 2010; Roy, 2019; Varela, 2017) this dissertation confirmed the value of mobility for studies and for work.

Short-term mobility programs such as Erasmus seem to be associated with an increasing not only in intercultural competences but in general in transversal competences such organizational, communicative and relational skills, largely considered important for the current labor market (Andrews & Higson, 2008; Moore & Morton, 2017; Robles, 2012). Although the positive outcomes of international mobility, some recommendations are necessary. Indeed, abroad experiences are also related to the necessity to deal with many challenges: language barriers, differences in values and ideals, difficulties in communication, fatigue caused by having to manage social norms and practices, discriminations and so forth (Kim, 2017; Poyrazli & Grahame, 2007; Sherry, Thomas, & Chui, 2010; Smith & Khawaja, 2011; Wang & Lin, 2019). Furthermore, a culture shock is often experienced when people spent a period abroad (Oberg, 1960, Murphy-Lejeune, 2012). Therefore, as confirmed by findings, the empowerment of resilience through specific training sessions seems to be useful, also because this personal characteristic seems to be related to CQ. Furthermore, the challenging characteristics of international experiences for studies and for work suggested, in both cases, to support people with coaching or counseling interventions. Furthermore, the international network seems to be useful both for students and workers as source of support and personal growth. Lastly, academic and organizational support respectively for students and for workers is auspicial.

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## ANNEX A

CQS (Ang et al. 2007), Italian version from Ghislieri, Molino, Dolce, Mercogliano & Mosso (2018)

Original items		Italian translations
Metacognitive		<i>Metacognitiva</i>
1	I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	<i>Sono consapevole delle conoscenze culturali che uso quando interagisco con persone con diversi background culturali.</i>
2	I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.	<i>Sono consapevole delle conoscenze culturali che utilizzo nelle interazioni cross-culturali.</i>
3	I am conscious of the cultural knowledge I apply to cross-cultural interactions.	<i>Adatto le mie conoscenze culturali quando interagisco con persone provenienti da una cultura che è per me non familiare.</i>
4	I check the accuracy of my cultural knowledge as I interact with people from different cultures.	<i>Controllo l'esattezza delle mie conoscenze culturali quando interagisco con persone di culture diverse.</i>
Cognitive		<i>Cognitiva</i>
1	I know the legal and economic systems of other cultures.	<i>Conosco i sistemi giuridici ed economici di altre culture.</i>
2	I know the rules (e.g., vocabulary, grammar) of other languages.	<i>Conosco le regole (ad esempio vocaboli, grammatica) di altre lingue.</i>
3	I know the cultural values and religious beliefs of other cultures.	<i>Conosco i valori culturali e le credenze religiose di altre culture.</i>
4	I know the marriage systems of other cultures.	<i>Conosco il sistema di matrimonio di altre culture.</i>
5	I know the arts and crafts of other cultures.	<i>Conosco le arti ed i mestieri di altre culture.</i>
6	I know the rules for expressing nonverbal behaviors in other cultures.	<i>Conosco le regole per esprimere comportamenti non-verbali in altre culture.</i>
Motivational		<i>Motivazionale</i>
1	I enjoy interacting with people from different cultures.	<i>Mi piace interagire con persone di culture diverse.</i>
2	I am confident that I can socialize with locals in a culture that is unfamiliar to me.	<i>Sono fiducioso di poter socializzare con la gente del posto in una cultura che per me è sconosciuta.</i>
3	I am sure I can deal with the stresses of adjusting to a culture that is new to me.	<i>Sono sicuro di poter affrontare le sollecitazioni di adattarsi a una cultura che per me è nuova.</i>
4	I enjoy living in cultures that are unfamiliar to me.	<i>Mi piace vivere in culture che non sono familiari per me.</i>
5	I am confident that I can get accustomed to the shopping conditions in a different culture.	<i>Sono sicuro che posso abituarci alle condizioni economiche in una cultura diversa.</i>
<i>Behavioural</i>		<i>Comportamentale</i>

1	I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.	<i>Cambio il mio comportamento verbale (es accento, tono) quando una interazione culturale lo richiede.</i>
2	I use pause and silence differently to suit different cross-cultural situations.	<i>Uso pause e silenzi in modo diverso in base alle diverse situazioni interculturali.</i>
3	I vary the rate of my speaking when a cross-cultural situation requires it.	<i>Vario la frequenza del mio parlare quando una situazione interculturale lo richiede.</i>
4	I change my nonverbal behavior when a cross-cultural situation requires it.	<i>Cambio il mio comportamento non-verbale quando una situazione interculturale lo richiede.</i>
5	I alter my facial expressions when a cross-cultural interaction requires it.	<i>Modifico le mie espressioni facciali quando una interazione culturale lo richiede.</i>
Likert frequency scale from 1 – <i>Strongly disagree</i> to 7 – <i>Strongly disagree</i>		Scala di risposta Likert da 1 – <i>fortemente in disaccordo</i> a 7 – <i>fortemente d'accordo</i>

### Resilience scale (Connor & Davidson, 2003)

#### Italian version from Di Fabio and Palazzeschi (2012)

<b>English items</b>	<b>Italian translations</b>
1. I'm able to adapt to change	<i>Sono capace di adattarmi ai cambiamenti</i>
2. I deal with whatever comes	<i>Sono in grado di affrontare qualsiasi cosa accada</i>
3. Sometimes it seems to me that problems happen always to me	<i>Provo a vedere l'aspetto positivo e divertente dei problemi</i>
4. I see the humorous side of things	<i>Fronteggiare lo stress può rendermi più forte</i>
5. It happens to be unmotivated when I come across to face with more than one	<i>Tendo a riprendermi dopo periodi di stress e fatica</i>
6. Coping with stress strengthens	<i>Sono in grado di raggiungere gli obiettivi nonostante gli ostacoli</i>
7. I tend to bounce back after illness, injury, or other hardships.	<i>Riesco a mantenere la concentrazione anche sotto pressione</i>
8. I am be able achieve my goals despite obstacles	<i>Non mi scoraggio facilmente di fronte ai fallimenti</i>
9. I am caught unprepared when faced with unforeseen	<i>Sono in grado di gestire i sentimenti dolorosi e spiacevoli</i>
10. Under pressure, I focus and think clearly	<i>Sono capace di adattarmi ai cambiamenti</i>
Likert frequency scale from 1 – <i>Strongly disagree</i> to 5 – <i>Strongly disagree</i>	Scala di risposta Likert da 1 – <i>Per nulla d'accordo</i> a 5 – <i>del tutto d'accordo</i>

### Transversal competencies (ad hoc)

<b>English items</b>	<b>Italian translations</b>
1. Organizational competencies (project management, time management, project work activity)	Competenze Organizzative (gestione progetti, organizzazione del tempo, progettazione attività di gruppo e coordinamento)

- |   |   |
|---|---|
| 2. Communication and relational competencies (dialog, listening, ...) | Competenze comunicative e relazionali (dialogo, ascolto, ...)                           |
| 3. Research competencies (data collection, data analysis, ...)        | Competenze di ricerca (raccolta, analisi e/o interpretazione di dati di diversa natura) |
| 4. Competencies regarding the study method                            | Competenze legate al metodo di studio   |
| 5. Knowledge regarding the study discipline                           | Competenze relative alla disciplina di studio   |

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Likert frequency scale from 1 – *Strongly disagree* to 5 – *Strongly disagree*

Scala di risposta Likert da 1 – *Per nulla d'accordo* a 5 – *del tutto d'accordo*

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## ANNEX B

Interview (Original version in Italian)

### **Introduction**

This interview requires about one hour and it is aimed to explore your experiences and ideas on leadership and the achievement of top management positions with a focus on gender issues. Indeed, the objective of this project is to understand what are the elements that strength the leadership, considering the female potential and the possible obstacles.

The results will be disseminated only for scientific purposes, through publication; it is guaranteed anonymity and reservation of data. Specific outreach tools will be provided in order to raise awareness of these issues.

We asked the authorization to record the interview to precisely transcribe and analyze the data. The anonymity will be guaranteed also in the phase of transcription. If you want, you can receive the transcription of your interview.

It will be our care to give the scientific products of this research.

### Questions

#### Interview information

- a) Gender:
- b) Age:
- c) Job position:
- d) Field of company:

#### Overview of relevant topic

Describe how you arrived to this position: Until now, paying attention to the turning points and work-family balance issues, what were the main steps of your life?

#### Questions for deepening

- 1) What can you tell me about the international experiences?
- 2) How you balance work and family life?
- 3) What types of support do you have?
- 4) What types of obstacles have you met?
- 5) What personal resources have you used?
- 6) What are your fears?



## **RINGRAZIAMENTI**

Ringrazio Chiara per aver sempre trovato il tempo di ascoltarmi, rassicurarmi, infondermi sicurezza e guidarmi. La ringrazio per aver creduto in me e avermi sempre dato fiducia.

Ringrazio Monica per la sua pazienza e dolcezza, per i suoi preziosi consigli, per la sua precisione e competenza.

Ringrazio Sophie, per la sua grinta, forza e determinazione che mi hanno più di una volta spronato a guardare in avanti con ambizione senza farmi frenare dalle mie paure.

Je remercie Loïc Chalmel pour m'avoir fait confiance.

Ringrazio tutte la mia famiglia e tutti gli amici che ci sono sempre e che ogni volta mi ricordano quanto possa contare su di loro in qualsiasi momento e che sono vicini anche quando sono lontana.