

DEPARTMENT OF PSYCHOLOGY

INVESTIGATING CHILDREN'S ATTITUDES TOWARD THE SYRIAN REFUGEE CHILDREN PRIOR TO THEIR ENROLNMENT IN GREEK SCHOOLS - INVENTING NEW ROAD PATHS FOR THE CONTACT THEORY THROUGH CONTACT WITH A PUPPET DOCTOR OF PHILOSOPHY DISSERTATION

PAVLINA CHARALAMPIDOU

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INVESTIGATING CHILDREN'S ATTITUDES TOWARD THE SYRIAN REFUGEE CHILDREN PRIOR TO THEIR ENROLNMENT IN GREEK SCHOOLS -INVENTING NEW ROAD PATHS FOR THE CONTACT THEORY THROUGH CONTACT WITH A PUPPET

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VALIDATION PAGE

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DECLARATION OF DOCTORAL CANDIDATE

The present doctoral dissertation was submitted in partial fulfilment of

the requirements for the degree of Doctor of Philosophy of the

University of Cyprus. It is a product of original work of my own, unless

otherwise mentioned through references, notes, or any other statements.

Pavlina Charalampidou

ΠΕΡΙΛΗΨΗ

Η παρούσα ερευνητική διατριβή αποτελείται από δύο επιμέρους έρευνες και διερευνά τις στάσεις και αντιλήψεις των μαθητών σε δημοτικά σχολεία της Αθήνας ως προς τα προσφυγόπουλα από τη Συρία που πρόκειται να ενταχθούν στα σχολεία, καθώς και την επίδραση μιας νέας μορφής επαφής (επαφή με μια μαριονέτα) στις αντιλήψεις, τα συναισθήματα και την συμπεριφορά των παιδιών στα ελληνικά σχολεία.

Η πρώτη είναι συσγετιστική έρευνα και εξετάζει μια σειρά από κοινωνιοψυγολογικές μεταβλητές σε σχέση με την προκατάληψη προς τα προσφυγόπουλα από τη Συρία. Συγκεκριμένα, εξετάζεται η πιθανή επίδραση διαστάσεων του σχολικού κλίματος, η ηλικία, το φύλο και το εθνικό υπόβαθρο των παιδιών που φοιτούνε στα ελληνικά σχολεία. Επίσης διερευνάται η πιθανή επίδραση του τύπου σχολείου (ετερογενές ή ομοιογενές πληθυσμιακά) ως προς τις ευκαιρίες που παρέγει για διομαδική επαφή. Σγολεία με υψηλά ποσοστά παιδιών με μεταναστευτικό εθνικό υπόβαθρο, που συνεπώς προσφέρουν ευκαιρίες για περισσότερη διομαδική επαφή, συγκρίνονται με σγολεία με ψηλά ποσοστά παιδιών με ελληνικό εθνικό υπόβαθρο, τα οποία, ως εκ τούτου, προσφέρουν πολύ λιγότερες ευκαιρίες για διομαδική επαφή στους μαθητές τους. Με βάση ένα μοντέλο SEM, η μελέτη διερευνά και εντοπίζει τον σημαντικό διαμεσολαβητικό ρόλο των διομαδικών απειλών, της ενσυναίσθησης και της συμπερίληψης του άλλου στον εαυτό (IOS), στη σγέση μεταξύ του σγολικού κλίματος, και των στάσεων και προθέσεων για επαφή με τα προσφυγόπουλα. Η καλή εφαρμογή του μοντέλου σε 4 ζευγάρια ομάδων με βάση το φύλο, την τάξη (ηλικία), τον τύπο του σχολείου και την εθνικότητα των γονέων παρέχει περαιτέρω ισχύ στο προτεινόμενο μοντέλο και αποκαλύπτει την επίδραση

κάποιων από αυτών. Συγκεκριμένα τα μικρότερα παιδιά (3η τάξης) και οι μαθητές σε πληθυσμιακά ετερογενή σχολεία που έχουν κυρίως μεταναστευτικό υπόβαθρο αξιολογούν πιο θετικά το σχολικό κλίμα και έχουν πιο θετικές συμπεριφορές προς τα προσφυγόπουλα από τη Συρία, αυξημένη συμπερίληψη του άλλου στον εαυτό (IOS) και αυξημένη ενσυναίσθηση. Τα κορίτσια επιβεβαιώνουν τη διεθνή βιβλιογραφία έχοντας υψηλότερα ποσοστά ενσυναίσθησης, ενώ επίσης έχουν αυξημένη την ικανότητα συμπερίληψης του άλλου στον εαυτό.

Η δεύτερη είναι οιονεί πειραματική έρευνα παρέμβασης σε ένα δημόσιο δημοτικό σχολείο στην Αθήνα που προωθεί: α) την επαφή με τη μαριονέτα παράλληλα με δραστηριότητες που προάγουν την ενσυναίσθηση (ομάδα 1 παρέμβασης) ή β) την απλή έκθεση σε μια μαριονέτα μεγέθους παιδιού (ομάδα 2 παρέμβασης). Η μαριονέτα έχει την ταυτότητα ενός Σύριου προσφυγόπουλου. Ο σχεδιασμός της έρευνας είναι διαχρονικού τύπου και περιλαμβάνει μετρήσεις πριν, αμέσως μετά και 6 μήνες μετά την παρέμβαση. Τα αποτελέσματα δείχνουν ότι η επαφή με τη μαριονέτα βελτίωσε τις στάσεις των παιδιών για τα προσφυγόπουλα, προκαλώντας αύξηση της ενσυναίσθησης, της συμπερίληψης του άλλου στον εαυτό και μείωση της απειλής προς την ενδο-ομάδα. Τα αποτελέσματα ήταν πιο ευνοϊκά στην ομάδα παρέμβασης 1, η οποία είχε και πιο ευνοϊκή συμπεριφορά προς τα προσφυγόπουλα, παρόλο που και οι δύο ομάδες παρέμβασης είχαν κάποια σημαντικά καλύτερα αποτελέσματα είχαν διάρκεια μέχρι και 6 μήνες μετά από την ολοκλήρωση της παρέμβασης.

Λέξεις κλειδιά: σχολικό κλίμα, διομαδική επαφή, προκατάληψη, ενσυναίσθηση, διομαδικές απειλές, συμπερίληψη του άλλου στον εαυτό.

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ABSTRACT

The thesis addresses the attitudes of children attending primary schools in Athens towards the incoming Syrian refugee children (prior to their actual enrolment in the schools under study). A number of variables are investigated as potential predictors of prejudice, these being dimensions of the school climate, children's age (grade), gender, and parents' ethnic background. The type of school is also examined in terms of the opportunities provided for intergroup contact. Schools with high percentages of immigrant students, thus with higher possibility for intergroup contact within the school context are compared to schools with high percentages of Greek students which therefore offer fewer chances for intergroup contact. Accordingly, the potential mediating role of empathy, of perceptions of intergroup threats and of the degree of inclusion of the other in the self (IOS) is examined.

In particular, the present research work consists of two parts (study 1 & study 2). Study 1 is a cross sectional study, a questionnaire study, that aims at revealing the attitudes of primary school children toward Syrian refugee children, while measuring perceptions about the school climate, feelings of perceived intergroup threats, empathy, and perceptions regarding potential contact with Syrian refugee children.

Study 2 was designed to offer a closer examination of the findings of study 1. In this sense, study 2 aims to offer an experimental confirmation of the findings of study 1, i.e. the importance of intergroup contact in prejudice reduction. Study 2 is a pre-intervention-post quasi experimental design with a control group (test – retest – late response test) involving an intervention study that aims at creating contact conditions between the children of a classroom

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and a puppet "classmate" that holds the identity of a Syrian refugee child. Contact with a puppet is an innovative form of contact that aims to add on as a way to achieve the positive outcomes already established by a long line of research on different forms of contact (for a review see Pettigrew and Tropp's meta-analysis, 2006; Pettigrew & Tropp, 2011, Davies et al., 2011), within the context of primary schools. In addition, study 2 aims not only at changing attitudes, but also at identifying actual positive behaviours for the outgroup. For this reason, study 2 includes a behavioural measure.

The sample of study 1 consists of children coming from two age groups (3^{rd} grade and 5^{th} grade children, N=660), attending primary schools in the city of Athens (central & suburban mainstream schools). In study 1 the sample is drawn from two different types of schools, i.e. a number of schools in which a large proportion of the student population is of migrant ethnic background (>%60), all situated in the city center, and a number of ethnically homogeneous schools where the great majority of the student population is of a Greek background (>80%), all situated in the north suburbs of Athens. Ultimately, roughly equal numbers of students from each type of school participated in the study.

In study 2 the sample comprises of 3^{rd} grade and 5^{th} grade students (*N*=73) drawn from a relatively ethnically homogeneous school (65-70% Greek students) situated in one of the suburbs of Attica. By the time the research work took place (study 1 & study 2), no Syrian refugee children attended the participating schools.

Results are discussed in relation to the important role the school possesses in dealing with prejudice among children, as well as the opportunities provided to implement easily applied interventions that would create ideal intergroup contact conditions which enhance empathy and

reduce feelings of threat coming from the co - existence with members of the outgroup. The importance of doing so rests on the growing numbers of immigrant and refugee populations and the associated need to successfully integrate these people into the receiving societies. Results are of most interest for European countries like Cyprus and Greece which are at the frontline of host countries. In addition, implications for reducing prejudice towards diverse groups of stigmatized people are also highly important, as nationalism, bringing along racism and discrimination, seems to rise again in Europe.

Keywords: school climate, intergroup contact, prejudice, empathy, intergroup threats, inclusion of the other in the self

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but also as a teacher myself, as a person and as a citizen.

To my Family

and to little angel, Alan Kurdi...

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INTRODUCTION

According to the United Nations High Commissioner for Refugees, UNHCR 2020 report. the world's forcibly displaced population has reached 79.5 million, that is one per cent of humanity -1 in every 97 people- which constitutes a 100% increase since 2010 (41 million then vs 79.5 million now). What's more is that fewer and fewer of those who flee are being able to return home (UNHCR, 2020). According to the same report, Syria comes first in the five-top refugee - source countries worldwide with 6.6. million refugee people, while currently there are almost twenty-six million refugees worldwide (UNHCR, 2020); Over half of them are children (UNHCR, 2019). Accordingly, since 2015-2016, when the European Union experienced an unprecedented influx of refugees (and migrants), the refugee crisis continues to escalate. Particular European countries, such as Cyprus, France, Greece, Malta and Spain, received more asylum applicants in 2019 than during the migration crisis of 2015-2016. In essence, more than 1 million people have arrived in the EU, most of them fleeing from war situations in Syria and other countries. Reports of 2017 on registrations (see A Million Stories - Refugee Lives) add to that number 198 thousand first-time applicants in the EU-28 registered in Germany only. This number accounted for 31% and was followed by Italy (127 thousand, or 20%), France (91 thousand, or 14%) and Greece (57 thousand, or 9%). As expected, the continuous increase of refugees arriving in Europe formulates a major social problem and has created numerous challenges, not only in terms of safely accommodating the refugees, but also in terms of achieving functional intergroup relations between refugees and the communities that host them. Taken together with the ongoing financial crisis that has been troubling many European

countries, this reality has created an intense climate, mainly for those societies that have been accepting the majority of the refugee wave.

Greece is one of the countries that are called to lift the burden created by thousands of Syrian people in need, while the country itself still struggles to overcome tremendous problems associated with the unfortunate financial situation that goes on since 2009. According to UNHCR 2020 latest report Afghanistan refugees are the first and Syrian refugees are the second most common nationalities of sea arrivals (since 1 January 2020) in the country. Thousands of refugees, including pregnant women and very young children, many of them unaccompanied, are enclaved in reception centres ("hotspots") across Greece, facing terrible conditions, since the country cannot host so many people. Most lack essentials such as safe drinking water, adequate food, sanitation and proper shelter, as many of them have spread to squares around Athens' centre and sleep on benches. While this thesis is being written, conditions are still described as dramatic in Greek refugee camps; people continue to be trapped in vastly overcrowded Aegean island camps in squalid conditions, while aid workers warned for catastrophe (Smith, 2019), which became real in September 2020, when a crisis burst out in one of the biggest host camps on the island of Lesvos; People in despair, hosted in the camp, set a huge fire claiming better human living conditions, which led to a total disaster of the host camp. Meanwhile, the situation that has been created the last five years in Greece and which has of course impacted people's representations of refugees, seems today to have dramatically altered, compared to the outset of the crisis. While at the beginning of the refugee crisis Greek people welcomed the Syrian refugees and sympathized with them, things have changed the past two years. Upon the refugee's first arrivals initial media reports appeared favourable and focused on the humanitarian aspect of

the problem; some even reported recursive information regarding respective stories of Greek refugees in the past, or stories of everyday people who had opened their homes ("and hearts") to host refugee children. However, recently, things have changed, since attitudes toward refugees worldwide are worsening, with polling revealing that the majority of European adults hold negative views (Dempster & Hargrave, 2017). People living in Greece are also confronted with dilemmas created by the ongoing refugee arrivals (and of immigrant arrivals) on the one hand, and of their everyday exposure to negative reports regarding criminal actions taking place in the host camps or outside the camps (rape, stabbing, killing, exploitation of minors, and theft), as well as media reports that underline a disrespect toward the values of the country, on the other hand. All these reports, naturally, raise serious concerns and feelings of threats (realistic and symbolic) at best, tensions, hostility and hatred in most extreme cases. Accordingly, as Vassilopoulos et al. (2020) argue "this backdrop of intergroup tensions may adversely affect the attitudes of local children toward refugees" (p. 2).

Under today's given reality where the Greek society is coming out exhausted from the financial crisis and the ongoing refugee crisis, shifts in the government's approach to migration and refugee issues are expected, following the summer 2019 elections in the country and the coming to power of a right-wing government, like for example shifting funding priorities towards other directions. Meanwhile, however, around 4,000 children, including almost 700 infants and close to 600 unaccompanied boys and girls, still remain in first Reception and Identification Centers (RICs), awaiting transfer to the mainland and more durable solutions (UNICEF, Situation reports 2019). It seems then that finding new ways, less expensive and more influential ways, so as to elicit successful refugees' integration and eliminate associated

obstacles or reduce negative pre-perceptions is urgently needed. Ideally, ways that would overcome time-consuming bureaucratic procedures, ways that would be easily applied in any given context, including school contexts, with minimum expenses and profound positive results.

Regarding refugee children, besides satisfying their most vital needs, the Greek government is also responsible to provide them safety and protect them from being further victimized. Under these tremendous circumstances, refugee children's enrolment into the Greek educational system has become a priority. The necessity to invest in integrating refugee children within the school context in Greece is highlighted as a decisive way in dealing with the issue of integration of the refugees in general. The reasoning is that integrating children is far more feasible compared to achieving refugee adults' integration. In essence, once refugee children's integration is achieved, dealing with the integration of the rest of the family becomes easier, again through the school context. As Kia-Keating and Ellis (2007) comment: *schools are one of the first and most influential service systems for young refugees*" (p. 29).

The present research work investigates the representations of primary school children in Greece regarding the Syrian refugees with relation to measures of the school climate (Study 1 - Questionnaire Study), along with other potential contributing factors (intergroup contact, threats, empathy, inclusion of the outgroup in the self, feelings for ingroup and outgroup members, multicultural attitudes) in an attempt to provide first-hand valuable information that would serve as indicators of what needs to be altered in children's depictions regarding refugee children. To change well established socially structured representations generally is not an easy task, but fortunately, when it comes to young children's representations, things may be a lot more

favourable. Following this reasoning the study moves on a step further to investigate the impact of a new form of intergroup contact as a means of impacting children's representations of the refugee children and reducing prejudice towards them. This concerns contact with a puppet, in the context of primary schools (Study 2 – Intervention Study).

Contact with a puppet is actually a combination of both direct and indirect contact in that it is based on actual face to "face" contact, only with the exception that the second "face" in the interaction is not a real human being, but a fictional human child figure (a puppet). In this sense, the actual individual needs to mobilise its imagination to communicate with the "unreal" face (a feature of indirect imagined contact).

Importance of the thesis

The potential theoretical contribution of the present thesis is three-fold; First it combines different theoretical paths, which even though have been dealing with aspects of a common shared construct, that of prejudice, for years now, they haven't so far, based on our best knowledge, been combined so as to come up with a more holistic comprehensive model that would embrace and better explain the several aspects related to prejudice in children, while also considering dimensions of the school climate. Therefore, the development of a potential conceptual model that takes into account aspects of the Integrated Threat Theory (Stephan & Stephan, 2000), the Intergroup Contact Hypothesis (Allport, 1954), the Social Representations Theory (Moscovici, 1961), the Social Identity Theory (Tajfel, 1979; Tajfel & Turner, 1986), the Intergroup Emotions Theory (Mackie, Smith & Ray, 2008), along with research findings on school climate, empathy and prejudice (Batson and colleagues, 2002; 2007) suggests an initiating

road path into acquiring understanding of the underlying mechanisms of prejudice in children towards the outgroup.

Second, outlining the potential important role of the social aspects of the school climate on primary school age children's attitudes towards the outgroup refugees, offers new perspectives into research concerning school climate and ideas about new associated constructs with the school climate. Focusing, in specific, on the existing research examining the effects of school climate regarding academic achievement and school performance, as well as educators' professional development (Deal & Peterson, 2002), less work has been done in measuring and connecting specific emotional characteristics of the school climate that impact issues of social emotional development (like empathy induction) or issues of peer exclusion, of stereotyping and of prejudice (on behalf of the majority student population towards minority groups within the school). In addition, while emotional growth of the children is often mentioned in curriculums worldwide, yet this remains an abstract, unassessed reference. As Buffett and Shriver (2017) argue:

"From the schoolhouse to State House, "academic skills" have been emphasized, tested, and reported upon, but another essential aspect of a child's education — social and emotional learning (SEL) — has been underemphasized or altogether forgotten — with serious consequences to children, schools, and communities."

The present research work attempts to shed light on the importance of the social and emotional aspects of the school life, therefore on aspects of the school climate and emphasize the

need for promoting children's social and emotional learning, as part of their official education program. Down this line intercultural education is a promising avenue, which however, seems to be underesourced in the Greek educational context, due to limited economic resources, as well as to the focus on its theoretical declaration without an equal emphasis on its practical implementation.

Third, a new form of contact is being proposed here; contact with a child-sized puppet that possesses a pre-assigned identity which serves as a representative of the target outgroup. It is an innovative suggestion that further expands the well-established merits of intergroup contact towards more creative and abstract manners, which may prove to be far easier to apply prior to actual face to face direct intergroup contact and achieve positive predispositions.

Another contribution of the present thesis regards the attempt to bring about real behavioral changes. Even though the contact hypothesis has received a huge research interest since 1954 (for a review see Pettigrew & Tropp's meta-analysis, 2006; Pettigrew & Tropp, 2008; Tropp & Prenovost, 2008; Tropp, 2011; Pettigrew & Christ, 2011; Davies et al., 2011; Lemmer & Wagner, 2015; Zhou et al., 2019), most of the work offers evidence that concerns changes in attitudes and intentions, but not actual behaviors (Hewstone et al., 2014; Lemmer & Wagner, 2015). The present research work (study 2), however, attempts to expand the applicability of the contact theory by promoting a new ready-made form of contact, as well as to bring about more profound behavioral changes. In this sense, the present thesis has also practical implications. In addition to that, the present thesis responds to another important limitation of studies that explore the applications of intergroup contact, that is to say that most of the work done in the field

mostly concerns correlational data, when the need for real-life evidence of causality, within naturalistic settings is largely left unaddressed. Even though there has been a rise since 2001 of contact interventions, still there is much to be done. In line with this limitation, Vassilopoulos et al. (2020) comment that up until now, there have only been three interventions that took place within the school context and which were designed to improve attitudes toward refugees; (Cameron et al's, 2006 intervention – study, Turner & Brown's 2008 intervention – study and Vassilopoulos et al., 2020 intervention – study, which is the only published study that systematically evaluated a prejudice-reduction intervention program specifically designed for elementary schools in Greece). Moreover, research regarding interventions that promote empathy, or contact is limited to a short, usually, exposure to the experimental condition (Lemmer & Wagner, 2015). In study 2 here, the 4-week intervention along with the pre, post and late intervention measures, offers longitudinal data, which are mostly valuable and far more informative, that can be used for the design of future interventions.

By extend, another practical contribution concerns the identification of key factors (related to the school climate) that impact the development of the representation of the Syrian refugee outgroup by primary school children and formulate attitudes toward that group. Identifying these elements would guide future in-school interventions that aim at prejudice reduction towards the refugee outgroup and this is of paramount importance for peace education and future harmonious long-term intergroup relations in the society, (Esses, Hamilton, & Gaucher, 2017), as well as for the establishment of long-term peace (Christie, 2006). Policy makers, schools and teachers may reconsider the importance of a positive social school climate in promoting healthy intergroup relations and direct their actions and decisions accordingly. Children can play a decisive role as

social actors, otherwise agents of peace, for they are the natural mediators of transition towards a fairer inclusive society in the future (Glen, Taylor & Dautel, 2020, p. 72).

Finally, another contribution of this thesis is of both a theoretical and a practical importance. This regards the development of two new measures of perceived intergroup threats that apply to primary school children populations in relation to refugees, namely that of the *Perceived Realistic Threats* and that of the *Group-Esteem Threat*. In this way, a gap in the existing measures that aim at revealing perceived intergroup threats is being addressed; that of the lack of relevant appropriate measures that apply to primary school children's feelings of perceived threats from the outgroup. The present research work (based on findings from the preceding pilot study) showed that symbolic types of threats may not exist in the mind of younger children, whilst realistic threats are perceived based on much different criteria, compared to older children and adults. Even though the respective scales need to be further validated in the future, yet they are a first step in adjusting such measures to children's developmental level and needs.

To sum up, the present thesis endeavours to develop a conceptual comprehensive model that explains prejudice among primary school age children by combining theoretical knowledge coming from a number of theoretical lines that deal with the reception of refugees in another country. In doing so, it also attempts to highlight the potential key role of the school climate, even though not all of its aspects are being addressed here. Following the findings of the preceding cross-sectional study (study 1) a second study (study 2) implements a new form of intergroup contact, that of a human-sized puppet with primary school children within their

classroom's context to achieve ideal contact conditions, reduce threats and induce empathy toward the refugee outgroup.

Altogether, certain research and literature gaps are being addressed in the present research work; the lack of adequate research regarding the feelings of younger children about perceived intergroup threats, the investigation of how aspects of the school climate may impact empathy induction, threats feelings and attitudes toward specific outgroups (here the Syrian refugee outgroup), the issue of the duration and content of within school interventions and the issue of examining real behavioural changes, rather than relying only on attitudes changes and inferring about behavioural changes. Even so, there are other issues that were not addressed in the present thesis, like examining the impact of the school climate in a more comprehensive and systematic way using additional scales, as well as more informative qualitative data, other than the thematic analysis of the pilot study (e.g. interviewing the school staff and children), or having more control variables over the implemented intervention in study 2, hence a more controlled experiment.

Literature review begins with a brief introduction concerning the refugee children's problem in Greece followed by a thorough review of research findings regarding intercultural education. Research findings on school climate and its correlates are then presented, followed by a presentation of some of the most prevalent theories that deal with prejudice and its associated constructs. Research findings on empathy and prejudice in children are also discussed. All the research work presented, along with the presentation of various theories, build the theoretical framework which supports the research hypotheses of the two studies that follow, as well as the chosen implemented general methodology, along with the analytical strategy and the

methodology of each study. Separate results and conclusions for each study are followed by a general discussion that attempts to provide a holistic depiction of the outcomes driven from the two studies in conjunction. Below a brief description of each chapter is being presented.

Chapter 1: Literature Review

First in this chapter the Refugee Problem in Greece is being discussed. Following, intercultural education and school climate are being investigated as contributing factors that may potentially impact a variety of procedures taking place in the school context, as well as students' attitudes, opinions and actual behaviours. In addition to that, some of the most established theories in the field of Social Psychology are being presented in relation to research findings on prejudice. In specific, the Intergroup Emotions Theory (IET), Social Identity Theories (e.g. SIT), the Social Representations Theory (SR), the Integrated Threat Theory (ITT), and the Contact Theory are being discussed, along with research findings concerning a number of mediators and moderators that have been found to impact, or are considered to impact the development of prejudice in intergroup situations. Research findings related to symbolic play through puppets, are also presented. Ultimately, this chapter aims to provide a new way of theorizing on prejudice by combining the basic assumptions coming from each theoretical line referred to earlier, and in doing so to create a conceptual model that may guide future research on prejudice in children.

Chapter 2: General Methodology

This chapter presents the research methodology used in this dissertation, including a brief description of the pilot study, followed by general demographics concerning the participants in both studies, of the factor analysis of the scales used, together with a detailed description of each scale, as well as validity and reliability indicators and of the implemented procedures (e.g. data

screening procedures) which all adhere to the analytical strategy of the present thesis. Finally, the general hypotheses of the thesis are being presented.

Chapter 3: Study 1

In general, the rationale behind the design of study 1, which is a cross-sectional study, is being addressed in this chapter; a detailed description of participants, procedures, methods and particular statistical analyses incorporated in study 1 along with the results of this study are presented. Discussion of the findings completes this chapter. In specific, the chapter investigates the impact of possible contributing factors in children attending primary public schools in Athens toward Syrian refugee children, under the prism of their future integration within schools in Greece. The important aspect of the social dimensions of school climate is investigated as a potential factor in determining the quantity and quality of intergroup relations via impacting the formation of children's empathy, inclusion of the other in the self and perceived threats, all in relation to the Syrian refugees. The outcomes are revealing of the potential role of the perceived school climate in promoting successful integration of the refugee children in the Greek schools, through empathy induction and increase of inclusion of the other in the self. In the discussion section the contribution of study 1, along with limitations and suggestions for future research are being addressed.

Chapter 4: Study 2

Study 2 emerged as a prolongation of study 1, in that it is meant to investigate the outcomes of study 1, i.e. it is an intervention, a quasi-experiment following the pre-test, intervention, posttest design with a control group. In specific, the intervention involves implementing an

intergroup contact scenario of primary school children with a child-sized puppet that possesses the identity of a Syrian refugee classmate. Special methodology implemented (participants' selection and demographics, procedures, in-classroom activities, measures and statistical analyses) along with results and discussion of the results are presented in chapter 4. In specific, contact with the puppet resulted in significant improvements in attitudes for the outgroup and intentions, while contact combined with empathy induction activities resulted in even better results. In addition, there were indicators of the pervasiveness of some positive results, as well as of the buffering effect which resulted in more stable attitudes especially within *Intervention 1* group. Finally, more positive behaviors were revealed through a money allocation task, for the intervention groups, compared to the control group, even though they were significantly better only for the *Intervention 1* group (contact and activities). These findings are encouraging and promising, while they also provide a paradigm for future research that would address behavioral changes in children. Thereby, in the discussion section the contribution of study 2, along with limitations and suggestions for future research are being addressed.

Chapter 5: General Discussion

In this final chapter a general discussion serves to bridge findings coming from the two studies (study 1 & study 2), as well as to incorporate them in the present-day literature and make sense out of this incorporation. Furthermore, it serves to use this new knowledge to design future studies, future interventions or even perhaps to revisit contemporary theories and consider developing more comprehensive theoretical models that expand their applicability. Limitations

of this research work are also discussed, as these must be considered when generalizing the

outcomes of each study.

CHAPTER ONE: LITERATURE REVIEW

The Refugee Children in the Greek Educational System in numbers

Between 2015-2017 the education of the first wave of refugee children was carried out in public schools or reception classes in nearby amenities in the afternoon hours. Simopoulos & Alexandridis (2019) comment that the school year 2016–17 was designated 'preintegrational' or "transitional". There was only one educational program that started earlier in October 2017, which was co-funded by the EU and allowed for 2500 refugee children to attend morning schooling facilities in 94 schools, on a pilot basis philosophy (AMNA₂ 2017). This integration was the result of the permission granted by the Greek Ministry of Education (Scientific Committee in Support of Refugee Children, 2017) for the Refugees' enrolment in local (Greek) elementary schools (Vassilopoulos et al., 2020). Thereby, until September 2017, the majority of refugee children did not have the chance to interact with the rest of the school population (teachers and students) who had already finished school by 1.15 p.m.

The ultimate long-term goal set by the Greek ministry of education then, was to gradually integrate these children into the normal morning schooling program and achieve a successful integration. Nevertheless, this course did not go on unimpeded, since some parents raised serious concerns regarding hygiene issues (which may also have masked other concerns or discriminatory attitudes), and some teachers appeared to be skeptical, at best (Katsigianni & Kaila, 2019; Simopoulos & Alexandridis, 2019).

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The schools were selected based on geographical criteria, as well as on criteria that had to do with the "school culture", which was indirectly assessed by previously contacting the school director and then, based on hers/his appreciation of the school level of readability to accept refugee children, moving on to the selection of the specific school (Scientific Committee of the Ministry of Education Research and Religious Affairs in Support of Refugee Children assessment, 2017). However, the aforementioned scientific committee concluded that in a number of cases, there have been significant failures in the selection of schools for the operation of Reception Facilities for Refugee Education (RFRE), since there was not enough time to have a picture of the special conditions of 140 schools across the country (which corresponded to the spatial criteria set), while there were doubts whether sufficient communication and coordination with the local authorities had been established. Another maladjustment regarded the fact that numbers of refugee children were much larger than believed to be; an estimated 27,000 children were present in Greece as of 31 December 2018, an increase from 21,000 in December 2017. The latest statistical reports show that since January 2019, the number of refugee and migrant children (the distinctiveness between the two terms is not always plausible) present in Greece has risen to 32,000 - a 52 per cent increase since January (including around 4,000 unaccompanied and separated children).

Since the initial 2017 children's enrolment in the morning schooling program, the situation today remains problematic; several organized parents' associations across Greece (either formally or informally) are still reluctant in accepting the new reality regarding refugee children's integration within the formal Greek educational system, while the Greek Ministry of Education, along with the help of NGOs (e.g. UNICEF) are still struggling to improve refugee

children's education. Meanwhile, numbers of the newly arrived refugee children are increasing, thus constantly altering the situation. Even though the capacity of Refugee Education Coordinators has improved, and reception classes for school-age and pre-school age children in reception facilities have expanded, as approximately 11,500 school-age children have been enrolled in Greek public schools (UNICEF, situation report for April-June 2019), challenges remain unaltered. Especially, regarding teachers' guidance, the school units are mostly left alone to solve any upcoming issues, educational or other. Many refugee children attend Greek public schools without any preparation classes, with no familiarity with the Greek language and with no available interpreters that could help ameliorate their adaptation difficulties (Crul et al., 2019; Katsigianni & Kaila, 2019; Simopoulos & Alexandridis, 2019). Things are not much better, even in schools that have been transformed into "intercultural schools" in order to deal with the challenges of educating diverse groups of students (Mogli et al., 2020). In other words, the far-reaching difficult task of successfully integrating the Syrian refugee children into the Greek educational system is still an issue, while these lines are being written.

In the next section the basic principles of intercultural education will be discussed, followed by the pathway intercultural education went through in Greece. Lastly, the specific challenges related to refugees' education will be addressed. This discussion will be held so as to provide a depiction of the Greek educational reality regarding refugees' integration in the Greek educational system by the time the present research work was taking place. Understanding the specific context of migrant and refugee children's education offers a specific framework for the present study, one that will help explain the findings of this research work.

Intercultural Integration & Intercultural Education: Basic Principles

Intercultural Education is based on the principles of intercultural integration which refer to "the recognition of the cultural diversity of society and the concurrent pursuit for interaction and co-operation" (Markou & Parthenis, n.d., p.1) and is linked to the promotion of intercultural dialogue, by maintaining the cultural uniqueness of the parties involved and promoting respect for such diversity (Markou & Partenis, n.d.). Intercultural education is accordingly based on intercultural pedagogy which in turn adheres to the principles of a wider understanding of culture (Lyons & Branston, 2006; Bojan, 2009). Following these notions and in respect to the specific Greek context, Mokias (2019) argues that "intercultural education is the response of the educational system in Greece to the changes that take place within the socio-cultural context" (p. 21), while Booth and Ainscow (2002) highlight the interconnection of intercultural education and inclusive education in many European countries. Intercultural education is also meant to promote the high values of justice, equality, recognition of diversity which make social cohesion feasible (Mokias, 2019). As illustrated, the term "intercultural" covers a great deal of aspects which clearly highlight its polysemic nature (Dervin & Liddicoat, 2013; Portera, 2008) on the one hand, but also indicate the abstractness of the term, on the other. The abstract nature of intercultural education is accordingly reflected in the curricula that promote it (Tsaliki, 2017). Another pitfall in defining the specific elements of intercultural education is that the term "intercultural" is often used interchangeably with the term "multiculturalism" (Tsaliki, 2017). The results of such misconceptions are detected in studies that deal with interculturalism (Tsaliki, 2017), and they can also confuse practitioners (mainly teachers) in implementing intercultural educational activities. Ultimately, such misconceptions may jeopardize the

successful implementation of intercultural educational interventions, under the threat of promoting trivial isolated actions that are labelled "intercultural", or "multicultural" for that matter.

In the Irish National Council for Curriculum and Assessment (NCCA, 2005) it is mentioned that even though both terms "describe a situation where there is more than one culture in a country" (p. 3), yet they differ on the basic of dialogical processes, meaning that "multiculturalism" is usually used to "describe a society in which different cultures live side by side without much interaction", while the term "interculturalism" underlines the meaningful interaction that occurs from dialogical processes among the engaged parties and "expresses a belief that we all become personally enriched by coming in contact with and experiencing other cultures, and that people of different cultures can and should be able to engage with each other and learn from each other" (p. 3). In this sense, intercultural education should be driven by promoting meaningful positive quality intergroup contact within the school context; one that has the power to challenge prevailing representations of the outgroup and (re)build shared inclusive social representations, as well as to promote inclusion of the outgroup in the self. Interculturality within schools could, thereby, achieve its full potential only if it expands towards embodying basic principles of the social psychological mechanisms of prejudice reduction through intergroup contact. In short, interculturality requires a multidisciplinary approach that is informed by theoretical and empirical deep knowledge in the field of intergroup relations.

The History of Intercultural Education in Greece

While up until the mid-1990s there was only a limited number of foreign students in Greece, during the decade from 1995-2005, there was an influx of migrant students entering the Greek schools. A landmark educational law in 1996 established intercultural education by foreseeing the adoption of intercultural education and respective curriculum adaptations so as to meet the new multicultural character of the Greek society (Crul et al., 2019; Fotopoulos & Kaimaklioti, 2016; Markou & Parthenis, n.d.; Palaiologou, 2012). In specific, the establishment of Law 2413/1996 entitled "Greek education abroad, Intercultural Education and other provisions" marked the beginning of a number of implementations of educational policies for migrant students in Greece (Palaiologou, 2012), promoting the establishment of intercultural schools, of reception classes in ZEP schools (Zones of Educational Priority) and of afternoon tutorial language classes, among others. Nevertheless, as Damanakis (1998) comments the law does not explicitly define which groups of pupils it refers to and accordingly, "how these educational, social and cultural peculiarities are defined and how teachers can meet those pupils' peculiarities" (Tsaliki, 2017, p. 51).

Nonetheless, in the years that followed the 1996 law, Greece has established two main programs at mainstream public schools to make formal education available to children seeking asylum, wherever this applies: a) a pre-existing morning "integration" program (ZEP/Zones of Educational Priorities) expanded to help asylum-seeking children integrate in classes with Greek peers; and b) an afternoon "reception" program (DYEP) for children who do not read or write Greek and may have been out of school for long periods. However, both programs are limited in

scope (for a reference please see "Without Education they lose their Future", 2018), since they do not sufficiently address the educational needs of students who come from diverse backgrounds, like for instance migrant children or children seeking asylum from eastern European countries, children from African countries, children from Asiatic countries, or refugee children that have experienced war situations. Palaiologou (2012, 2004) discusses how during the first decade of immigration, public schools in eastern European countries, like in Greece, lacked appropriate infrastructure to meet the educational needs of migrant students, as well as the social needs of their families. As Cruel et al. (2019) argue, even though things may have improved since 1996, still the recent presence of refugee children raises concerns, as teachers are called to deal with children who have in many cases gone through tremendous difficulties to arrive in these countries.

The issue of teachers' competence in educating children from such diverse backgrounds, even from war settings, also highlighted by researchers in southern European countries (Palaiologou, 2012; Pinson, Aicot & Candappa, 2010; Liddicoat & Diaz, 2008), has become nowadays even more profound since teachers are called to face new challenges in respect to their professional experience, knowledge, ethic and values. Last but not least, schools are usually not prepared for the enrolment of children coming from such diverse backgrounds and teachers within normal schooling are not specially trained to respond to the challenges from such enrolment.

"Intercultural schools" in Greece were also established in 1996 by the law for "Intercultural Education" 2413 (FEK 124, first issue, 17-6-1996). This type of schools theoretically aimed to

achieve integration of children of diverse cultural backgrounds, instead of assimilation; a goal that was not eventually reached (Triandafyllidou & Gropas, 2007). The specific law provided for schools with a student population of over 45% of foreign, repatriate and/or refugee students to be converted, if the school teaching staff decided to do so, into "intercultural schools" of preschool, primary, secondary and post-compulsory (mainstream and vocational) education. However, the fact that schools with high percentages of foreign migrant students failed to maintain their native students, who resorted to other, more ethnically homogeneous schools, has transformed some public schools into ghettos, which consequently impacted the task of integration with the local native population. This picture is commonplace in other southern European countries, like in Italy, Portugal and Spain (Palaiologou, 2012).

In turn, this pitfall resulted in schools' administration unwillingness to have their school transformed to an "intercultural school" (Tsaliki, 2017), while a similar pattern was identified in mainstream schools where the school would refuse to take in migrant students with the excuse of having completed the maximum number of students per classroom (for reference please see "*Without Education they Lose their Future*", 2018). This is also reflected in the trivial number of intercultural schools across Greece; only 26, 13 of which are primary schools and only three of them being situated in the prefecture of Attica. As Tsaliki (2017) comments: "there is no official reference to explain why these particular 13 schools were designated as intercultural schools" (e.g. a different curriculum), other but the schools' decision to enrol to this program (as they met the criterion of students' population composition). The limited number of multicultural schools inevitably transferred the hard task of educating migrant and refugee students to the nearby mainstream schools, which of course were not ready to deal with such a difficult mission.

Nonetheless, to respond to the needs and problems mentioned above, regarding teachers' abilities in dealing with such diverse student populations, teachers in the intercultural schools should meet specific criteria which mostly regard their education, i.e. they must have particular qualifications and training regarding intercultural and bilingual education, and/or have language competency in respect to the needs of the concurrent student population (Antera & Bouya, 2014).

The curriculum of intercultural schools is basically the same with that of the mainstream state schools (Antera & Bouva, 2014). However, there is an emphasis on the ethnic and cultural aspects of the students' lives, as well as on the use of tradition, music, literature, dance and drama as a means of promoting the value and wealth of student heterogeneity and enhancing intercultural contact (Antera & Bouya, 2014). In addition, the school teaching staff is encouraged to adopt some modifications in order to adhere to the special educational and social needs of the specific student population. More specifically, intercultural schools organise classes for Greek language teaching and learning as a second/foreign language and are allowed to provide special textbooks and language supplements (the 'Reception Classes' mentioned above). In the intercultural schools Reception Classes run concurrently with the course of the mainstream classes of intercultural schools, while migrant / refugee students attend to their main classrooms for the rest of the school subjects. Regarding students' assessment, there are specific instructions for either exception or oral examination, according to their level of Greek language acquisition and the school subject (Antera & Bouya, 2014; Crul et al., 2019). Moreover, there is provision for the psychological support of these students so as to contribute to their smooth integration into the new educational and social environment.

However, all of these provisions are dependent upon financial resources, which have been dramatically limited, since the beginning of the 2009 financial crisis, thereby many of them have not been put in place (Crul et al., 2019; "Without Education they Lose their Future", 2018). Likewise, since extra-curriculum initiatives are not of a mandatory character, rather they are strong recommendations coming from the central educational authorities, they too, have remained unfulfilled or unassessed. As Palaiologou (2012) discusses: "in school practice, bilingual measures in Greece were only implemented in a few schools, upon the school's initiative. Such measures were hardly commonplace" (p. 64).

Special Issues Related to Educating the Refugees in Greece

"In Greece, instruments previously used to integrate migrant students into the public schools proved to be inappropriate for the high numbers of refugee children arriving post-2015. In particular, there were no instruments to address the conditions under which these children arrive to Greece, coming from war-torn regions and having been rescued during an often very traumatic journey in the Aegean Sea (Crul et al., 2019, p. 7).

In order to host the large amounts of refugees and migrants arriving in Greece between 2016-2017 Refugee Accommodation Centres (RAC) were developed in various areas across the country. Naturally, the schools that were situated in a nearby neighbourhood were called to accomplish the task of educating these children. This situation put those schools in considerable pressure, especially the ones that were situated close to very big RACs of 1000–3000 people, such as Ellinikon and Skaramangas (Crul et al., 2019). The Greek Authorities responded to this challenge by establishing the Reception Facilities for Refugee Education (RFRE, in Greek

 Δ .Y.E.II), which operated within the aforementioned schools in the afterschool hours and intended to function as preparation classes for a temporary transitional period for children of 6 to 15 years old. These centres taught in an extra afternoon shift, and they taught an adopted curriculum which aimed at the (re)integration of refugee children into school, either in Greece or - in the event of relocation – in other European countries (Crul et al., 2019). In essence, the RFREs main purpose was to offer the refugee children a sense of normality that corresponded to their age, while also taking provision for their psychosocial support (Crul et al. 2019). During the same period, refugee students living outside the RACs attended the morning shift, either in mainstream schools or in the Reception Classes of Educational Priority Zones (ZEPs), or in one of the 26 Intercultural Schools operating in Greece (Crul et al., 2019). Even though the Greek government tried the next year to place refugee and migrant children in classes according to their age and their mother tongue, yet still the financial shortcomings faced by the country resulted in putting all children in the same RFREs. This was done irrespective of the children's special needs, which mostly derive from the fact that many of them have received little or interrupted schooling due to the war (Crul et al., 2019), which of course also resulted in many children suffering serious traumas (Anagnostopoulos, et al., 2016; Christodoulou & Abou-Saleh, 2016; Porter & Haslam, 2005; Sirin & Rogers-Sirin, 2015).

Within the Reception Facilities for Refugee Education (RFRE) the Refugee Education Coordinator (REC) is a key figure, being usually an experienced teacher who has been put there after her/him applying for this position. RECs are responsible for coordinating the Ministry's programme on refugee education by organizing all the details and tackling the problems related to the enrolment of the children in the selected schools and in doing so they serve as bridges

between children and their families with the school, thus with the society. They also coordinate and monitor education by NGOs and other bodies operating within the refugee sites. Despite their important work and the trust they received by the refugees, this was not reciprocally appreciated by the Greek authorities, neither in terms of facilitating their work, nor in terms of recognition (e.g. by paying for their transportation or offering benefits to compensate for the high responsibilities they take on). As Crul et al. (2019) discuss: "the combination of the high responsibility with low remuneration has discouraged many teachers and after the first year; in 2017–18 only one third has applied again for this position" (p. 8).

A study by Mogli, Kalbeni and Stergiou (2020) investigated the difficulties faced by teachers in the "intercultural schools", as well as REC teachers and found that even them, who theoretically have some kind of expertise (as discussed above) expressed challenges they faced, as a result of receiving insufficient training in teaching refugee children. Based on the study findings, it can be concluded that the lack of training of teachers working in RFREs caused multiple problems, which impeded educational procedures (Mogli et al., 2020). In respect to teachers working in refugee settings, Palaiologou, Fountoulaki & Liountou (2019) also highlight the challenges faced by these practitioners, even if they had extra competencies, since working with refugee children means, not only educating them, but mostly working with war traumas. In essence, teachers are unprepared, thereby unsuccessful in approaching their refugee students, gain their trust and build meaningful relationships, so as "to create the prerequisites for the children to be smoothly integrated into the Greek educational system" (Mogli et al., 2020, p. 42). The teachers in Mogli et al. (2020) study actually reported being unable to psychologically

support their refugee students, while they also faced communication difficulties due to lack of a language of mediation.

What is the actual picture in the Greek mainstream primary school classroom?

Besides the pitfalls mentioned above, there have been notable changes in the way the Greek educational system deals with the vast migrant and refugee waves of students. However, even though Greece slowly attempts to conform to the successful policies followed by many other European countries (of central and northern Europe), there are reduced benefits for the refugee and migrant children from such policy in Greece, compared to other European countries (Mokias, 2019), most probably due to the unstable financial support to such efforts and their occasional occurrence. Moreover, the turnaround of students in classrooms and schools in Greece is high due to the instable legal situation of refugee families who often do not want to stay in Greece and this reality undermines the work done (Mokias, 2019). As a result, even if the language obstacle is dealt, teachers have less expectancies from refugee children and local children are less likely to invest to long-term meaningful relationships with peers who will probably leave the school next week, or next month or next year. In accordance, refugee children may also be unwilling to invest to a situation that will not last more than a few weeks or a few months. This tendency is reflected in numbers showing that in Greece a little less than half of those who are seeking asylum do not sign up to formal education. At the end of 2017, the UNHCR estimated that around 8000 refugee and asylum-seeking children were enrolled in Greek schools. By the end of 2018, that number had risen to 11,000. These numbers indeed correspond to less than half the population of asylum-seeking in Greece.

As illustrated earlier, intercultural education in Greece is a task that largely depends on mainstream schools to be achieved, since the number of "intercultural schools" is extremely limited, compared to the migrant and refugee student population. Thereby, it is important to see how this task is being carried forward within mainstream classrooms by teachers with no relevant expertise, as this impacts the way diverse groups of students are being depicted by their native peers. That is to say, that if refugee (and migrant) children are treated as a burden and their stay in classrooms as a temporary situation by the school and the teachers, these behaviours formulate specific unfavourable outgroup norms and shared representations, that through the mechanism of dissemination impact the school culture and children's outgroup attitudes. In the next section results from studies that assess the implementation of intercultural in-classroom (mainstream classroom) practices within the Greek context in specific and elsewhere will be discussed in relation to both, good practices and difficulties faced by schools and teachers.

Research-Based findings from implementing intercultural education within the mainstream classroom context – Lessons Learnt

Kaldis' research (1999, 2002) showed how suitable activities carried out within the classroom context led to children's increased knowledge of other ethnic groups (within the EU), which in turn resulted in children deconstructing their stereotypical perceptions about other foreign populations - countries of EU. These findings were in line with analogous previous findings (Barrett and Short, 1992; Hoggart, 1990). Kyridis et al. (2017) found similar results in a group of Greek primary school students and concluded that teachers play a crucial role in the direction of teaching pupils' quality characteristics of other ethnic groups so as to acquire an

objective knowledge regarding the physiognomy of other countries and transform any stereotypical representations. As they argue: "the school is much more charged than ever before with the difficult role of educating its pupils aiming at the alleviation of possible stereotypical perceptions towards special teams of pupils and the creation of healthy interpersonal relations among them" (p. 13). In respect to these findings, Killen & Rutland (2011) also report a study by Hughes, Bigler & Levy (in 2007) which was conducted in the USA with 6- to 11- year – old European American children that showed how teaching these children explicitly about historical racial discrimination resulted in improvements of their racial attitudes. Killen and Rutland (2011) conclude that "multicultural education helps create a school climate that promotes positive attention to cultural diversity, deals with negative interactions between children from different groups, and promotes tolerance to others from diverse cultures" (Killen & Rutland, 2011, p.177).

A case study conducted by Katsigianni and Kaila (2019) in a primary school in Piraeus area in Attica, Greece, showed how teachers, parents and students were called to accept a new school reality created by the enrolment of refugee children under time pressure and how this lack of appropriate preparation resulted in an initial resentment on behalf of the school and the parents. The study highlighted the difficulties that occurred from the initial oppositional reaction demonstrating how these impacted the collaborative potential and the school climate as a whole (Katsigianni & Kaila, 2019).

This was the reality for many schools that were chosen during the years 2017-2018 and 2018-2019 to enrol refugee children; that is to say that refugee children were assigned to schools after a short notice, with no prior preparation and with no appropriate infrastructure. As a

consequence, this policy raised concerns at best, intense reactions in many other occasions on behalf of the native parties involved (Katsigianni & Kaila, 2019; Simopoulos & Alexandridis, 2019). However, it is true that despite the difficulties, part of the educational community supported the full integration of refugee students into mainstream public schools, because they knew that the development of a parallel educational system for refugee children would gradually lead to their permanent segregation. On the other hand, some groups of parents voiced xenophobic attitudes and threatened to occupy schools (some actually did so) (Simopoulos & Alexandridis, 2019).

Today the situation in Attica is characterised by an overconcentration of migrant and refugee students in some schools in central Athens, while schools in the suburbs have very low or zero numbers of migrant and/or refugee children (Simopoulos & Alexandridis, 2019). Moreover, the great majority of the schools that today have migrant refugee children have not transformed into "intercultural schools" in terms of following the relevant official procedures, thereby they are not properly equipped to offer quality education to these children. Under such circumstances, the teaching and activities that take place in these schools are as much "intercultural" as the teachers' or the schools' initiatives and sensitivity allow to be, meaning that they depend upon teachers' and schools' "good will" and competence. In respect to this reality, Mokias (2019) comments that: "missions around intercultural education issues are influenced by the conditions in which they are formulated" (p. 22). That is to say that efforts to implement intercultural education are influenced by the level of readability on behalf of the school administration in terms of financial resources and of the "know how", by the school staff competence, and by the

support from local authorities, which altogether constitute the conditions referred to by Mokias (2019).

For all the above reasons, schools in the present study were distinguished as highly homogeneous (suburban) and highly heterogeneous (central) based on the composition of the school population. The distinction between intercultural and mainstream schools was not feasible, since there are only three schools in Attica that meet the "interculturality" criterion, thus any results would be limited to these schools only and not the majority of the schools. Instead, the aim of the present thesis is to identify other potential factors that distinguish schools and result in quality differences in terms of intergroup contact and attitudes for the outgroup. Greek educational reality underlines the necessity to concentrate to mainstream schools and try to bring about changes in these schools, since they offer the chance for generalizability of any positive outcomes. As Killen and Rutland (2011) argue "the ethnic composition of a school influences the level of social exclusion and intergroup bias shown by children" (p. 178), thus the criterion of ethnic composition is put forward as a meaningful predictor of outgroup attitudes, along with any potential differences in perceived school climate within the two types of schools.

The preceding section presented the Greek reality regarding intercultural education, in order to (a) highlight the shortcomings compared to meeting diverse groups of children needs, (b) to offer a picture of the conditions under which refugee children attend Greek schools and how they are practically separated from their native peers and (c) make a connection between teachers' and schools' attitudes and behaviours towards these children and the prevailing shared representations for them, which eventually formulate the school norms and impact the school

climate. In the next section, dimensions of the school climate are being addressed, followed by a discussion concerning its relation to issues of prejudice.

The School Climate – The School Culture

According to the National U.S. School Climate Council (2007) "School climate is based on patterns of people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures" (Cohen & Geier, 2010, p.1). The above definition, however, indicates the abstract nature of the school climate as a construct which combines a variety of meanings, engages the perspectives of different groups of people (directly the students, teachers, the school administration and non-teaching staff and indirectly the parents and the community) and is affected by all these people's durable co-current motivation and expectations. Besides the above definition, there is also a multiplicity of other definitions for school climate which has, in turn, led to misperceptions and hindered research progress (Hoy and Hannum, 1997; Thapa et al., 2013; Ramelow et al., 2015; Wang and Degol, 2015; Lee et al., 2017). This lack of definitional consensus is reflected on the many scales that are designed to address the construct of the school climate worldwide, and the subsequent inconsistencies in measuring it (Thapa et al., 2013).

Consequently, research has also focused on the psychometric properties of the several measures of school climate (Guo, Choe, & Higging-D'Alessandro, 2011; Voight & Hanson, 2012). Recent evaluations of the available instruments have shown that there are four sub-factors of the construct that are clearly represented in the literature and school climate scales (Cohen & Geier, 2010; Voight & Hanson, 2012). These are related to (1) school's academic emphasis as

personal growth or goal orientation for academic excellence (otherwise teaching and learning) (2) interpersonal relationships within a school, in terms of their quality and consistence, (3) shared norms, goals, and values; in other words, the common understanding of accepted and endorsed behaviour which ensures safety within the school setting and (4) the institutional environment (e.g. physical surrounding). There is also a consensus regarding who are to be considered as the recipients of, as well as the contributors, to the school climate. Thereby, the assessment of the school climate involves asking particular groups of interest to report their perceptions, which are, as indicated above, mainly teachers, students, the school's non-academic staff and parents. Perspective of all these groups matters because each group may perceive school climate differently.

Due to its multi-dimensional nature the school climate has been also studied as a correlate to various other school and psychosocial related constructs. School climate as the core substance of the psychosocial nature of the school context and of the quality of the intergroup interactions taking place within a school has been found to affect student learning and school functioning (Johnson and Stevens, 2006; Lubienski et al., 2008; Reyes et al., 2012). Nonetheless, the most studied correlate of the school climate is academic achievement. The impact of the school climate on students' academic performance has received the majority of research interest; it has been studied extensively and school climate perception has been found to affect students' academic achievement (Brookover et al., 1978; Brand et al., 2008).

Conclusively, the importance of the school culture on cognitive development is underlined in numerical literacy studies that show its impact on school success, as well as on collaborative decision making, professional development and staff and student learning (Deal & Peterson,

2002). Accordingly, an extensive review of school climate research by Thapa and colleagues (2013), indicates that the key attributes of a healthy school climate include everybody's perception that it is a safe place with clear rules, respects diversity, is assertive in preventing and responding to bullying, and fosters healthy relationships between students, teachers, and parents (in Horswood et al., 2019).

Regarding its psychosocial focus, school climate has been found to be a predictor of students' emotional and of behavioural outcomes. It also impacts students' adaptive psychosocial adjustment (Brand et al., 2008), since it predicts students' mental health outcomes (Roeser et al., 2000; Brand et al., 2003) and students' self-esteem (Way et al., 2007). School climate also influences students' forms of delinquent behaviours, such as rates of bullying and aggression (Bizumic et al., 2009; Turner et al., 2014;, Espelage et al., 2014; Gottfredson et al., 2005), and alcohol and drug use (Brand et al., 2003).

Theories on Prejudice and School Climate

The majority of the studies that deal with the school climate has been conducted within higher education institutions aiming at changing the cultures and climates and to create more culturally sensitive and inclusive environments (Adams et al., 1997; Finkel, Storaasli, Bandele, & Schaefer, 2003; Gurin, Nagda, & Lopez, 2004; Hurtado, 2005; Hurtado, Milem, Clayton-Pederson, & Allen, 1999; Le-Doux & Montalvo, 1999). However, much less evaluative research has been carried out in primary educational settings (Dessel, 2010). The present study focuses on the underlying, usually "unnoticed" procedures which are related to the social aspects of the school climate, here within primary schools in Greece, thus addresses the school climate (or school culture; the two terms will be used interchangeably throughout this study) as the

indispensable factor that formulates the underlying norms within the school context and sets the boundaries of the school life. According to Fullan (2007) the school culture can be defined as the guiding beliefs and values evident in the way a school operates. School is also a primary socializing force, providing an opportunity to learn about differences, conflict resolution, and peaceful coexistence (Dessel, 2010). Thereby, primary schools are at the frontline of children's socialization procedures, and studying the school climate within the primary school context may result in much more promising interventions towards changing negative aspects of the school life. To do so the developmental framework within which interventions take place needs to be considered in relation to theories regarding the development of prejudice, as the specific programs that seek to foster multicultural sensitivity and competence (Rettig, 2002) must do so within the cognitive and emotional capacities of the target population. Pettigrew notes that certain "normative climates" can "poison" attempts to improve intergroup relations (2006, p. 619). "It is the application of combined knowledge about the psychology of prejudice within the context of a culture and climate model that holds the promise for improving the educational experience for all children" (Dessel, 2010, p.413). In the field of intergroup relations research has shown that prejudicial attitudes within the school context contribute to problematic intergroup relations in public school settings (Dessel, 2010), a finding that is directly linked to the theme under study in the present thesis, i.e. the ways in which the school norms, the school climate in general, impact children's social interactions with each other, especially concerning ingroupoutgroup interactions. Theories of prejudice, such as the *Contact Hypothesis* (Allport, 1954) or the Integrated Threat Theory (Stephan & Stephan, 2000), relate to the concepts of school culture and climate (Dessel, 2010), in that they are applicable in many aspects of the school life that

entail intergroup conflict. For example, antagonism for limited resources or threats posed by minority groups to the social dominant benefits that majority group students enjoy, or social identity issues are all met within the school context and they influence school norms and people's attitudes. Teachers are well aware of their students' socioeconomic status and of the ethnic composition of the school population, and this may influence consciously or unconsciously the way they interact with students (and with different groups of them). In accordance, these factors influence the social learning that takes place within the school context, meaning that students are also aware of the inequalities and the injustices in the system, and they can also easily detect other people's feelings and expectations for them. In this way, prejudice can both be the enacting factor that formulates a negative, even hostile school culture, and also the result of a negative or hostile culture.

On the other hand, stands Allport's Contact Theory with empirical evidence of how positive intergroup contact does reduce intergroup prejudice (Aronson & Patnoe, 1997, Paluck, 2006; Pettigrew & Tropp, 2006). "Fostering equality, cooperative learning, and interdependence between groups, as well as the friendship potential between individuals, can lead to decategorization and recategorization of out-groups, positive changes in attitudes and reduction in prejudice (Dessel, 2010, p. 411)". And this is how *Social Representations Theory* comes into play, since the notions of de-categorization and recategorization can be linearly linked to the notions of socio-cognitive conflict (Doise, Mugny and Perret-Clermont, 1975; Doise and Mugny, 1984), which indicates the conflict of perspectives in social interaction (Psaltis, 2015; in G. Sammut et al., 2015) and results in that of reconstruction of social representations. This association is being revisited in the next section (*The Social Representations Theory*).

The "Hidden Curriculum"

The school culture plays a central role, even though not so obvious at first glance, on teachers' and students' beliefs, expectations, attitudes and values. At times these may carry a positive load, like for example promoting credibility values or aiming high and other times may carry a negative load, i.e. a "toxic school culture" (Peterson, 2002), like when it promotes racism or other exclusionary behaviours towards minority groups. The salient impact of the school culture regards what scholars call the "hidden curriculum". Jerald (2006) asserts that the hidden curriculum develops personal relationships between faculty and students and intentionally aims at developing characters. Evidence of this deliberate role that the school culture possess is more profound in settings that undergo conflict or post-conflict tensions or in contexts where the societal status quo is threatened by radical social changes like in the case of vast immigration waves or of a great economic crisis.

Zembylas (2010) argues that "there is a variety of everyday technologies in schools that instil resentment and inhibit the creation of emotional spaces that encourage an ethics of friendship, solidarity and care for the other" (p.266). One important step in overcoming the negative aspects of such technologies is to first identify their existence and second to realize their inhibiting role. The engaging agents of the school life are usually unaware of and insensitive towards these everyday mechanisms. Consequently, the devices of discrimination come unnoticed, promoting a segregation of the "us" versus "them" type (Zembylas, 2010). Working in the Cyprus post-conflict setting Zembylas (2010, 2011) studied the ways in which the school culture (or the school space) becomes an arena for racialization and ethnicization, through

everyday practices and policies, which facilitate the conservation of power relations between the prominent majority and the stigmatized minorities, always in favour of the dominant group.

The school space is related to emotional geographies within the school setting, which take the form of collective emotions created and developed via the prevalent underlying atmosphere or the "hidden rhetoric" of the school, involving relations of "towardness" or "awayness" in relation to issues of race, ethnicity, status etc. (Ahmed, 2004). In specific, an emotional geography processes emotion focusing on "its socio-spatial dynamics of movements or relations, rather than viewing it as an entirely interiorized subjective mental state" (Zembylas, 2011). In this way emotions are viewed as social products and not as individualistic properties. It is mainly a transactional procedure between larger social forces (macro-political) and the internal mentality of the individual (Zembylas, 2010). "Within this transactional process, emotions are understood as embedded in culture, ideology, gender, space and power relations" (Zembylas, 2010, p.152), thus take a more rigid character.

In line with the role of the school climate in forming children's attitudes and emotions, the most profound challenge would be to identify which types of school may prove to be more inclusive, for minority children. Zembylas (2010) provides qualitative evidence of how racism incidences in schools are not the outcome of individual prejudice on the part of some teachers and students, but a result of the whole school emotional space which is emotionally unwelcoming and hostile towards minority students. The most worrying feature of such collective negative feelings stands on the fact that these emotions gradually grow to become established "common sense beliefs", thus gaining a false, yet unquestioned validity. Zembylas

(2010) also discusses the harsh time some objectors - teachers have when they attempt to voice out oppositional, from the dominant voice, or differentiated arguments.

The big question here regards not the existence of such collective emotions within the school context, but rather the processes that elaborate and activate this collective nature. In other words, taken for granted that such emotions do exist, importance lies in the how(s) and when(s) of such development. What are the implications that construe these emotions and with which exactly school practices and discourses are they perpetrated (Zembylas, 2011)? Which emotional geographies promote segregation of indigenous and immigrants, of non-refugees and refugees and to a further degree "when do these processes become racism and nationalism?" (Zembylas, 2011, p.255). Can the Integrated Threat Theory or the Integroup Contact Theory alone, provide answers to these "whens" and "hows"? Does the school culture promote or impact the mechanisms that produce intergroup threats? Does it control the quality and the direction (positive or negative) of intergroup contact within the school setting? And how does it impact children's collective emotions? The Social Representations Theory (Moscovici, 1961) that is discussed in the next section may help in unfolding those processes and illustrate how they come together to form children's collective representations for the outgroup.

Due to the growing refugee crisis worldwide, research has more recently turned toward studying school factors that may impact refugees' adaptation to the host society in specific (Kia-Keating & Ellis, 2007; Horswood, Baker, Fazel, et al., 2019). However, as Horswood et al. (2019) argue:

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"the body of research examining school environmental factors that support the mental health and acculturation of refugee children is methodologically heterogeneous, investigates numerous and disparate school factors, and is often "hidden" in broader qualitative studies. This limits the capacity to apply the findings in a practical manner" (p. 1).

In addition to that, research in this field has mainly examined the impact of the school climate on the psychosocial wellbeing and resettlement trajectories of refugee children and has aimed to identify the school factors which support good mental health and resettlement outcomes for this population (Tyrer & Fazel, 2014; Rousseau & Guzder, 2008; Horswood, et al., 2019; Fazel, Wheeler, & Danesh, 2005; Porter & Haslam, 2005; Montgomery, 2010). The depiction of the refugee children (or immigrant children at most of these cases) on behalf of the majority group, i.e. that of the inhabitant children in relation to the school climate has also been partly addressed through intervention studies (e.g. Cameron, Rutland, Brown & Douch, 2006; Turner & Brown, 2008; Dimakos & Tasiopoulou, 2003). Yet, more research is needed concerning inhabitant children's representations and attitudes toward the refugees and the associated mechanisms that impact them. Altogether, inhabitant children's perceptions regarding the school climate in relation to their intergroup attitudes toward the refugee children, need to be more thoroughly addressed.

The Social Representations Theory

How do emotional geographies and the school space relate to social representations of the outgroup within the school context? To answer this question, we need to bring back to mind the

foundational principles of the theory of Social Representations (SR). The theory of social representations, as it was originally proposed by Serge Moscovici in 1976, regards the way knowledge is represented in a community and shared by its members. It is actually a real theory of common sense that applies to any aspect of life and society (Moscovici & Hewstone, 1983). In a more recent interpretation "a social representation is the ensemble of thoughts and feelings being expressed in verbal and overt behaviour of actors which constitutes an object for a social group" (Wagner, Farr, Jovchelovitch, Lorenzi-Cioldi, Marková, Duveen & De-Rosa, 1999, p. 3). Meda (2010) argues that social representations impact the interiorization of the experiences and practices, both collective and individualistic, as well as have an impact on the behavioural and thought patterns in any given community. These thought patterns are transmitted from generation to generation and are embedded with conviction that they guarantee the collective continuity of the community (or the society or the ingroup).

Definitions of social representations emphasize their collective nature in a sense that they serve their purpose as a means of understanding and communication in everyday life, as well as ways of attributing meaning to any form of social objects, by giving them some collective, commonly accepted symbolic meaning. This depiction of social representations resembles the collective emotions that are being discussed in this chapter. As Ahmed (2004) argues "emotions play a crucial role in the ways that individuals come together, and move towards or away in relation to others" (Zembylas, 2010, p.152). In addition, recent research shows how individual fears are cultivated through the intervention of social, political and educational forces and are less the outcome of direct experience (Zembylas, 2009; Bar-Tal & Teichman, 2005). The analogy becomes apparent if one compares the school's geographies and emotional space with

its associated agencies, as discussed by Zembylas and Ahmed, to the societal channels (one of which is actually the educational system) that build and form shared social representations, which of course are "emotionally coloured". In this sense the idea of emotional spaces in schools and of geographies of emotions appear to step on the foundational principles of the Social Representations Theory.

"The basic function of social representations is to make the unfamiliar familiar" (Psaltis, 2015, p. 118). Through a socio-cognitive conflict process, defined as the "conflict of perspectives in social interaction" (Psaltis, 2015, p. 115) prior representations of nearly unfamiliar objects start to change, as a result of them being confronted with new perspectives (of others) that claim plausibility. This clearly sociogenetic and social constructivist view of the development of social representations resembles the triadic subject-object-other epistemological framework (Zittoun et al., 2007), as it conceptually leads to a linear connection to the study of the microgenesis of social representations as proposed by Duveen (in Psaltis, 2015). Sociocognitive conflict leads to a negotiation and a reconstruction of prior representations, which were originally formed through collective processes, what Barrett (2005) calls "social-group based reasoning" as well as a re-conception of social identities of outgroups. This procedure which "concerns the evocation and (re)construction of social representations in social interaction" according to Duveen and Llovd (1990; in Psaltis, 2015), enables the transformation from one structure (of social representation) to another. According to Duveen (2001) social identities are the product of the function of social representations. Naturally, it takes dialogical processes to achieve such transformations, which by definition emerge through social interactions.

However, a number of semantic barriers may jeopardize the transformative power of such processes, as they tend to block the necessary socio-cognitive conflict to emerge (Gillespie, 2008, 2012, 2015; Kadianaki & Gillespie, 2015; Markova, 2003), by hindering "the intrusion of doubt in the current belief system of the reader and avoid reflection on their core representations" (in Avraamidou & Psaltis, 2018, p. 16), thereby hindering potential deconstruction of outgroup threats (Avraamidou & Psaltis, 2018). Semantic barriers according to Moscovici (1961/2008) are meaning complexes that inhibit the dialogical process between rigid representation and alternative ones by removing power off the alternative argumentation, thus leaving no space for transformation of an established representation (Avraamidou & Psaltis. 2018). Semantic barriers may take several forms; Gillespie (2008) suggests the following five: Prohibited Thoughts, Separation, Stigma, Undermining the motive and Bracketing (in Avraamidou & Psaltis, 2008). In relation to the present thesis, attention is drawn upon the last three; *Stigma* is relevant in that "it creates a simplistic and stereotypical bi-polarity of 'us' versus 'them' that leads to the outgroup's alienation, therefore leaving no chance of finding a common ground, *Undermining* the motive is also relevant since there is a lot of talking going on regarding the actions of the NGOs involved in the refugee crisis and their real motives and finally Bracketing which is a rhetorical form of reported speech such as "they say", "they claim that" holding the alternative at distance (Avraamidou & Psaltis, 2008, p. 5).

Similarly, concerning the present thesis, the intervention program's (study 2) potential success relies on the transformative role of social interaction through contact, even with a puppet that holds an alien identity; one that makes the unfamiliar (Syrian refugee children) gradually familiar by forcing familiarizing, at first, sympathizing and eventually empathizing for the

unprivileged other at a later stage. In this sense, the Syrian refugee child gradually becomes a familiar other in need (for friendships and co-operation).

The socio-cognitive conflict in this occasion, stands in the process of gradually perceiving the other (the unfamiliar outgroup) as having similarities with members of the ingroup and start being conceived as part of oneself, a part that gradually acquires shape and voice within oneself. It is in that point that the SR theory meets *Contact Theory*, i.e. positive intergroup contact makes social interaction possible and opens up the way for challenging representations of the outgroup, ultimately leading to re-construction of former stereotypical mental schemata (representations).

Social Representations of the Syrian Refugees

The majority of newcomers in schools in Greece (and across Europe) today, are immigrant children and refugee children. It is no secret that migrants who are thought to come from more deprived areas (economically or "culturally") are faced as inferior citizens, as foreigners who threat to change the ethos and the well-established social order of the receiving society. Especially, when it comes to refugees, social representations play an even more decisive role, since the label "refugee" carries one of the most unified imagery in everyone's (who has not been a refugee) minds. Zetter (1991) argues that:

"Within the repertoire of humanitarian concern, refugee now constitutes one of the most powerful labels. From the first procedures of status determination who is a refugee? - to the structural determinants of life chances which this identity then engenders, labels infuse the world of refugees" (p.39).

Since refugees started arriving in Greece, their situation, along with the economic crisis and its consequences, dominates public discussions and mass media reports. Naturally, these topics enter family discussions and school discussions. Parents and teachers, either consciously or unconsciously, may provide information to the children, based on the most prevalent concurrent opinions and attitudes, as promoted by the public channels of communication. The school environment, and by extension the school culture, are dominated by considerations regarding what is going to happen with the increasing number of refugee children attending the Greek public schools. Children are the most sensitive recipients of these underlining notions as perpetrated by their most important others, i.e. parents, teachers and the "unquestionable truths" presented in the media. Who are these people, why are they here? Are the refugees, somehow, going to be a threat to them? Under the prism of such considerations, and without any systematic efforts to clarify things in young children's minds, stereotypical beliefs prevail or as Vassilopoulos et al. (2020) argue: "When children are presented with attitude-incongruent information, they may tend to ignore, distort or selectively attend to the information provided in order to keep their initial schemata intact which, in turn, may strengthen their stereotyped Knowledge" (p. 2). In other words, children are not passive recipients of what is going on in the public sphere, but rather they are actively processing the available information from adults' world and internalize it accordingly.

Barrett (2004) argues that children's perceptions of their national identity, as well as their identification with the national ingroup is subjected to the co-current national context, thus any developmental theories regarding issues of identity may in fact be context-specific. This is of paramount importance, considering that contexts may differ in a variety of ways, even within

theoretically similar "orientations", like countries within the EU context, as well as considering the many ways in which a micro-context may dramatically change (e.g. due to a crisis of any kind). Findings from Barrett's work with colleagues (in Barrett's 2004) show how, indeed, children from three different national contexts aged from 6 up to 15 years (but all within the EU wider context) displayed different patterns concerning measures of national identity acquisition and identification. In specific, the researchers found that ingroup favoritism is exhibited to a different extent by different national groups of children at different ages. Barrett (2004) concludes that things may be much more complex regarding the way children represent the national outgroup, meaning that the way they construe their representations may be impacted by numerous content-specific, therefore mutable factors. The potential crucial impact of the context is illustrated by the fact that children acquire very strong feelings about particular groups of foreign people before they have acquired any concrete knowledge about those groups (Barrett & Short, 1992; Johnson, 1973; Johnson, Middleton, & Tajfel, 1970).

As Jovchelovitch et al. (2013) argue:

"Children's representations are flexible semiotic systems whose form and content interact productively with the context in which they develop. These results reject conceptions of children's knowledge as a prototype of adult knowledge, suggesting that children's societal knowledge evolves through adaptive strategies to specific socio-cultural environments" (p. 332).

Following this reasoning, the universality of theories that deal with prejudice in children, should be reconsidered, as findings from different studies (e.g. Barrett, 2004; Nesdale, 1999) show that there may be a different route of how prejudice is developed from one age to the other. Nesdale

(1999, 2004), for example, argues that age-related changes in children's ethnic prejudice should not be expected as "a matter of course", since it is not only the cognitive limitations that should be considered, but also the very important factor of ingroup identification, along with the prevailing ingroup norms, let alone other factors like parental prejudicial attitudes (Bandura, 1977; Aboud & Doyle, 1996; Aboud and Amato, 2001; Nesdale and Flesser, 2001; Pirchio et al., 2018). Nesdale (2004) discusses that children and adults may never display ethnic prejudice, as a result of low or no ingroup identification with a prejudicial (in)group, while Brown also argues that they may develop long-lasting prejudices even without having any negative contact experiences with an ethnic minority group member (Brown, 1995).

The Role of the Media in Forming Social Representations

Children's feelings and attitudes about outgroups they have never encountered with is a key proof of the power of the surrounding context on children's social representations. The media are traditionally employed within games of societal power as a means of safeguarding the prevailing status-quo (Avraamidou, et al., 2018) or of promoting the predominant co-current trends across the public sphere. Kadianaki et al. (2017) have illustrated how decisively the media in the Cyprus context (a country that has been receiving large waves of immigrants and refugees, especially since the outbreak of the 2015 refugee crisis) construct, monitor and frame the public debate concerning this issue. Even though the researchers also present media reports that had actually held a positive stance on the matter, still they argue that they do so in a superficial manner, by rejecting the insensitive or racist perspective of those being negative toward "people in need" and victimizing the immigrants (Kadianaki et al., 2017), but without opening up the

way for a truly innovative debate that would result in questioning the prevalent depiction of the outgroup. In this way the potential merits that may derive from a fruitful social dialogical process are being undermined and the representations of the outgroup remain unaltered. As Kadianaki et al. (2017) argue, had the media that hold favorable representations based their arguments on detailed facts concerning the positive consequences of migration, or the actual numbers of government expenditure on refugee crisis, could have led to informed discussions that might had resulted in alternative pathways and potential transformations of the prevalent collective representations for the specific outgroups. Accordingly, reports regarding the way media across the E.U. deal with the same issue, reveal, again, a tendency to present it in an abstract way, so as to eliminate the possibility of triggering any transformation processes (Kadianaki et al., 2017), while the refugees are presented either as vulnerable or dangerous outsiders (Georgiou & Zaborowski, 2017). Avraamidou and Psaltis (2018) referring to the Cyprus context found evidence of how the press project threats imposed by the ethnic outgroup and "feed" collective fears, which in turn promote representations of threats to their readers that play a crucial role in undermining the potential for transformative dialogue (see above), since they offer no space for alternative representations. The researchers, by indicating the close relationship between social representations and identities, make an argument as to how the media block meaningful dialogue with various alternative representations, not only from outgroups, but also other stakeholders involved (e.g. NGOs), by projecting semantic barriers (Avraamidou & Psaltis, 2018).

In addition to that, media in the western world have introduced a hybrid distinction, that of the "illegal" versus "legal" immigrant and also a distinction between the bogus as opposed to the genuine refugee, which further expand misconceptions and outgroup stereotypes. Taken together

with what Cohen (2002) discusses about how media in the UK tend to blur the boundaries between different migration groups (i.e. migrants, asylum seekers and refugees) and use generalized categories to refer to them, such as foreigners or immigrants (in Kadianaki et al., 2017), one can see how this "over-labeling" results in shifting the focus away from the real problem. Not only does this tendency lead to a misconception, but also to a downgrading of the issues related to each group of people. In other words, the media under study seem to take the easy road path, the one that leads to a superficial and polarizing debate of migration and of the refugee crisis that is doomed to remain unassessed.

In relation to the semantic barriers referred to earlier, these are usually perpetrated into the media and impact dialogical and transformation processes accordingly (Avraamidou & Psaltis, 2018; Bar-Tal & Teichman, 2005). A number of studies within the E.U. context have illustrated the impact of media consumption (usually a negative impact that is initiated by negative media reports) on indigenous people attitudes to migrants and refugees (Matthijs et al., 2019; De Coninck et al., 2018; De Cock et al., 2018; Bleich et al, 2015; Boomgaarden & Vliegenthart, 2009). In accordance, a research by Jacobs and Hooghe (2015) showed a positive relationship between the extent to which the media reported about immigration and the degree to which the public experienced immigration as a major challenge.

Children are of course caught in the middle of this peculiar situation created by the unknown labels passing by (e.g. "illegal immigrants", "refugees") in their surrounding context, as even young children seem to have an opinion, even a naïve one, for these matters. However, the actual content of their representations, at different ages, for each category needs to be explicitly and

thoroughly investigated, so as to identify the most prevailing content formulated in these representations. The pilot study presented in the present thesis attempts to do so at a first basic level. Out of the pilot study four new measures emerged, i.e. a *Perceived Realistic Threats*, a *Recognition for Need*, a *Group-Esteem Threat* and a *Multicultural Attitudes Measure*.

Prejudice and Children-Early findings

Aboud's early work on the development of prejudice in children is initiated on the premise that prejudice in children is not to be conceived as mirroring prejudice in adults (Aboud, 1988). As she argues, when encountered with prejudice in children, a superficial explanation is that it is the result of imitating adults, rather than, say, an issue of personal preferences. The argument made by Aboud (1988) is not that children are less prejudiced, but that "their rudimentary attitudes have a simpler structure" (p.5) due to their cognitive limitations, which inevitably interfere with the development of prejudice and therefore, cognitive limitations ought to be included in the equation of prejudice in children. In this sense, Aboud's sociocognitive theory (1988) rests, on the one hand, on cognitive development related to Piaget's theory on children's cognitive development through stages, likewise on the constancy in the Piagetian manner. That is to say that understanding the constant nature of events and phenomena connected to the physical world, precedes understanding of the nature of different ethnic and racial groups, in that it enables children's comprehension of the constant nature of one's ethnicity (understanding for example that changes in clothing, in one's appearance in general, does not impact one's ethnicity which remains the same over time and in different contexts). On the other hand, Aboud also refers to Kohlberg's (1976) theory of moral development to provide support to the social-

cognitive developmental theory of prejudice. In this way Aboud proposes a theory which takes into account, both the cognitive development and the social development trajectories that impact prejudice in children. In specific, the social development perspective regards Kohlberg's idea of development of morality through age-related stages, which suggest a gradual shift from the early focus on the self to the focus on the societal ingroup (norms and preferences) and then to the individual other.

It is for that reason that Aboud (1988) argues that an adult-oriented definition of prejudice and ethnic self-identification may not be sufficiently applied to children. For one, definitions of prejudice among adults emphasize the stable, unified and consistent tendency for negative outgroup evaluations, whereas children's respective attitudes tend to be less unified and consistent, compared to adults. Aboud's argument rests on the fact that young children lack specific cognitive capacities, which lead to the development of prejudice, e.g. young children have not yet mastered their classification capacity, thus they focus on the general category, rather on the specific characteristics of an individual which they fail to identify. In specific, Aboud's sociocognitive theory (1988) suggest that around 7-8 years of age children exhibit the highest levels of prejudice, and after this point prejudice starts to decline as a result of their improved categorization skills, that is their improved multiple classification skills lead to more flexible, therefore less stereotypical thinking.

Contrary to Aboud's (1988) claim that ethnic prejudice diminishes in children from 7-8 years onwards as a result of cognitive acquisitions, Nesdale (1999) proposes that "it is precisely in this period that prejudice actually crystallizes and emerges in those children who come to hold such

attitudes" (p. 98). Nesdale's theory is being addressed in the next section after a short presentation of the original theory of Social Identity Theory on which it is based.

The Social Identity Theory

The Social Identity Theory (SIT) which was originally proposed by Tajfel and Turner in 1979 offers an appropriate theoretical background in order to study how group identity impacts ingroup members' prejudicial attitudes (Killen & Rutland, 2011). In specific the SIT poses that individuals tend to maintain their ingroup identity by viewing their own social group more positively compared to other social groups, and that individuals identify with social groups having a positive social status (Mulvey, Hitti & Killen, 2010).

The theory, while unravelling the mechanisms that formulate group identity, which is considered of paramount importance "for psychological well-being and for the effective functioning of society" (Killen & Rutland, 2011, p. 62), it also reveals the potential of enchasing prejudice through prevalent ingroup norms that promote negative judgements regarding members of outgroups. Lessons learnt by research that has been conducted in the field of SIT has been, therefore, used to investigate possible ways to reverse negative outgroup conceptions and employ ingroup norms towards positive integration with out-groupers (Hewstone et al., 2014).

The Social Identity Development Theory

Despite the applicability of SIT in a variety of contexts, yet it cannot be applied directly to the study of children (Killen & Rutland, 2011). It is for that reason that Nesdale (2004, 2007, 2008) proposes the Social Identity Development Theory (SIDT), which is an adopted version of the SIT that extents so as to account for age differences in the formation of ingroup identity and

also in the way it develops throughout childhood and adolescence. Drawing on Social Identity Theory, Social Identity Development Theory (SIDT) proposes that the development of outgroup derogation depends on several factors such as the extend of self-categorization – which deals with what makes people define themselves in terms of one group membership rather than another, and subsequently the level of identification a child has with the other members of the group, the extent to which prejudice is an ingroup norm, and the extent to which the ingroup members perceive the members of the outgroup as a threat (Mulvey, Hitti & Killen, 2010). The SIDT, subsequently, accounts for children's cognitive development. SIDT focuses mostly on ethnic prejudice and proposes that children move through four phases as they develop ethnic prejudice. In specific, these include the Undifferentiated phase, around 2 to 3 years, of age in which "children do not selectively discriminate between objects and people in the social world" (Killen & Rutland, 2011, p. 65), the Ethnic Awareness Phase, from 3 up to around 6 years of age, in which "children attend to ethnicity as a social category and begin to show ethnic identification" (p. 65), the *Ethnic Preference Phase* which takes on somewhere before the age of 7, in which the need for a positive ingroup ethnic identity leads children to prefer ingroup over outgroup, without necessarily showing any outgroup dislike, and finally the Ethnic Prejudice Phase, in which different outcomes may occur, depending on the degree of one's ingroup ethnic identification, meaning that strong ethnic identifiers will most probably exhibit negative evaluations of the outgroup, this again being dependent on the degree that the outgroup is conceived to be a threat for the ingroup, as well as on whether the ingroup norm supports prejudiced feelings (Killen & Rutland, 2011). In this way, the Social Identity Development Theory (Nesdale, 2004, 2007, 2008) proposes a developmental pathway in prejudice from a

focus on the self to the group and ultimately to the individual, where ingroup preference and adherence to social norms takes on until the mid-adolescence for the majority of children. Accordingly, Killen and Rutland (2011), provide research-based evidence of the way young children (up to 7 years of age) tend to rely upon their moral judgement (what is fair to do) when deciding who to exclude or to include or when allocating resources, while older children who enter the ingroup identification phase, somehow put aside their moral decision making, presumably for their ingroup's societal norms sake (even though in times they may also display moral reasoning). Therefore, children in their middle childhood phase (i.e. around 8-11 years of age), as opposed to what Aboud (1988) supports, tend to become more group-oriented and are more likely to adopt negative outgroup attitudes. Thereby, the SIDT suggest that children can enter the ethnic prejudice phase around 7 years and from this point prejudice has the potential to become established (Killen & Rutland, 2011.

Nesdales' theoretical line combines developmental and social aspects of social exclusion; thereby it becomes applicable in investigating children's social interactions. In doing so, it provides an account of developmental changes in children's prejudice (Killen & Rutland, 2011). The SIDT has therefore been used to explain how children decide when and who to exclude or include, and by extend offers rich research evidence in the field of prejudice and stereotyping among children. In short, the SIDT provides an insight into how group identity might impact children's prejudiced judgements (Killen and Rutland, 2011).

Group favouritism is a crucial element that impacts children's decision to exclude or include other children and determines the dominance of more ingroup desirable attitudes and behaviours

(implicit or explicit bias against the outgroup). SIDT (likewise SIT) suggests, as already mentioned above, that ingroup favouritism occurs "as a consequence of subjective identification with the ingroup" (Barrett, Lyons & del Valle, 2004, p.175); if the individual identifies strongly with the ingroup, then she/he will have strong motives to positively evaluate the ingroup, as the ingroup is seen as an extension of hers/his own self (Barrett, Lyons & del Valle, 2004). The vice versa also holds true, meaning that if a person identifies poorly with the ingroup then she/he will not have strong motivation to undiscerningly evaluate the ingroup positively. The latter scenario seems to be more applicable in cases of minority groups, where ingroup status is seen as inferior of that of the majority group. This consequently may lead to low or no identification with the ingroup. In any case, ingroup identification has been also shown to be an age-related matter and to impact the perception of belonging to a group accordingly. As already discussed above, research evidence shows that ingroup awareness emerges somewhere around the age of 3 (Aboud, 2003; Aboud & Amato, 2001) and accordingly the Social Identity Development Theory suggests that ingroup ethnic preference emerges before the age of 7, and then gradually, based on the surrounding context, this preference may lead to ethnic prejudice, as ethnicity is a salient characteristic which influences children's development of outgroup attitudes (Nesdale et al., 2005).

Children demonstrate intergroup biases in their empathy and prosocial behaviour toward others based upon group membership (Abrams, Van de Vyver, Pelletier, & Cameron, 2015), and by the age of 7, these intergroup biases may translate into explicit prejudice and negative outgroup-directed behaviours (Levy & Killen, 2008). As children enter into middle childhood, their attitudes toward ethnic groups become more nuanced and are influenced by an array of

factors such as empathy, perception of outgroup threat, and group norms (Nesdale et al., 2005a, 2005b), and this is attributed to the fact that strong identification with the ingroup (ingroup identity) becomes more apparent. Adhering to the group norms, rather to moral reasoning when evaluating an outgroup, at least at the group level (Killen & Rutland, 2011), is then more likely to occur with age. As Killen & Rutland (2011) discuss, not all types of biases develop in the same way and there are biases (conscious or unconscious) which develop early in life and do not decline with age. Nesdale (2008) showed that racial attitudes and ethnic prejudice either remain stable through middle childhood into adolescence or they actually deteriorate. Comparisons between 6-year-old up to 16-year-old children in the UK (Rutland, 1999) showed that national prejudice against the German outgroup was only displayed by children from 12 years old onwards (in Killen & Rutland, 2011), while evidence of national stereotypes were found amongst 10-year-old children and onwards. These findings are illustrative of the role that the social context poses and that only older children can speculate and comprehend the wider implications of identities such as status differences between groups, historical differences, as well as established stereotypes in the society about them. However, that is not to say that older children do not use moral reasons when deciding on issues of exclusion, rather that they are in an advanced position to weight the multiple sources of influence (e.g. ingroup norms, morality and wider societal influences) and decide accordingly. On the other hand, it is true that for older children who are known to care about conforming to social groups, norms matter (Killen & Rutland, 2011). There is also research evidence that shows how younger children in a sample of 9-to-13-year-old children were more focused on equality than on ingroup loyalty (Banaji, Baron, Dunham & Olson, 2008; Freytag & Unkelbach, 2007). Likewise, there is also evidence that

shows that this tendency may begin at an earlier age. Killen & Rutland (2011) discuss findings of 7-8-year-old children who view it as legitimate to base their decisions on social conventional norms, depending on the context, i.e. when ingroup versus outgroup antagonism is high. Thereby, prejudice in children, as well as decision making on exclusion amongst children, is a multifaceted issue, for which cognitive developmental reasons alone cannot explain.

Sani and Bennett (2004) identified a similar pattern regarding group awareness in children's conceptions of social identities. Before the age of 10 group identities are heavily related to behavioural habits and preferences. Only by late-childhood and adolescence are group identities conceived also with reference to beliefs (e.g. people in the Mediterranean are hospitable). Despite such sophistication by late childhood, many further advances in more abstract ways in which a group is seen, continue to develop throughout adulthood, as for example reflecting on the subjective importance of the group to its members (Sani & Bennett, 2004; Svirydzenka, Sani, and Bennett, 2010).

The Common In-Group Identity Model

Setting Social Identity Theory as the "stepping-stone", relevant models were developed to suggest other mechanisms through which ingroup and outgroup members may approach each other and interact. The Common In-Group Identity model, proposed by Gaertner & Dovidio (2000) is one such paradigm which asserts that a superordinate identity makes subgroup boundaries less salient and that former outgroup members will be part of the ingroup resulting in more favourable attitudes and behaviours (as illustrated in Beaton & Deveau, 2005). This may be implied in cases where ingroup members are repeatedly directly or indirectly exposed to intergroup positive contact situations and gradually acquire a more detailed specific opinion of

an outgroup, which blurs the former generalized beliefs they may had had and leads to acknowledging common characteristics of the outgroup and oneself. Measures like *IOS*, i.e. *Inclusion of other in the Self*, have been developed to account for such potential.

A pervasive division between "we" and "they" highlights the qualities that separate the opposing parties and in extreme intense environments creates an intractable conflict. As a result, in-groupers tend to identify stronger with the ingroup and resent the outgroup, thus clearly distinguishing themselves from the out-group. In such complex situations, where group identity is salient, children turn to stereotypic and prejudicial decisions, to maintain group identity and support ingroup norms (Killen & Rutland, 2011). The Common-In-group Identity perspective aims to the rupture of such persistent divisions between groups and the creation of a common ground that allows for interaction, as a first step of familiarizing.

The Intergroup Emotions Theory (IET)

Stemming from the Social Identity Theory, proposed by Tajfel and Turner in 1979 and discussed in the next section, the Intergroup Emotions Theory (Mackie, Smith & Ray, 2008) seeks to understand intergroup relations based on the decisive mediating mechanism of ingroup collective emotions. The theory asserts that when ingroup identity becomes important, or at cases where it is salient, ingroup members tend to think, to appraise and to evaluate the various intergroup situations and events as an indistinctive entity, i.e. the ingroup entity. In other words, the IET bases its understanding of intergroup relations "by focusing on the emotions engendered by belonging to, and by deriving identity from, a social group - processes called self-categorization and identification" (Mackie, Smith & Ray, 2008, p.1866). Over time and as these

emotions emerge repeatedly on specific intergroup occasions, they parcel together and become automated, as a result of group membership itself. Once a negative or positive evaluation becomes automatically associated with the mental representation of a group, that group is accordingly evaluated. Since these intergroup emotions are evoked, they direct and regulate particular intergroup behaviours, positive or negative, depending on the particular emotions (Mackie, Smith & Ray, 2008).

The IET, somehow, attempts to open the "black box" of intergroup relations, in that it takes investigation a step back, before stereotypes and prejudice become established beliefs. The key element, according to the theory is to be found in the mechanisms that formulate intergroup emotions within an ingroup context. Strong ingroup identification, which means that the group and group membership become part of the self, may result in appraisals of events in terms of their implications for the ingroup. Hence, the crucial time to intervene is somewhere before the cross-section point when group identity gains importance for the individual, thus becoming salient. The proximity of the IET with SIT becomes then apparent.

Another theoretical line that deals with intergroup relations, the Integrated Threat Theory – the ITT (Stephan and Stephan, 2000) is also very closely connected to the IET. The ITT refers to a number of threats that groups may feel by an opposing outgroup, which may have to do with realistic tangible goods and recourses, with symbolic threats that jeopardize the value system and the beliefs of the ingroup or with feelings of anxiety or of stereotype threats due to the intergroup contact. The threats proposed by the ITT, all apply to negative feelings on behalf of the ingroup members as an entity, i.e. collective emotions. In this sense, it may be argued that the linkage that is missing between threats and attitudes/ or behaviors may be emotions. Emotions may be

the motivational force that influences the attitudes and behavior in such a way that when you are afraid you will probably fly (behavior), when you are angry you will probably fight (behavior), when you are satisfied you will probably want to engage (attitude) or will actually engage more (behavior), etc.

The ITT will be discussed in more detail below, since its relation to group-based emotional arouses is crucial and an extensive amount of research work illustrates how feelings of threats are translated into prejudice (Stephan & Stephan, 2000). However, the IET offers a better understanding of intergroup relations in cases where intergroup attitudes become intergroup behaviours. Intergroup appraisals occur as intergroup activities. The ones based on threats are thought by the theory to be the crucial element that triggers group-based or intergroup negative emotions and behaviours (Mackie, Smith & Ray 2001). In specific, as argued earlier, emotions of fear may result in outgroup avoidance, whereas emotions of anger may result in taking action against the outgroup. On the other hand, positive feelings and emotions may result in increased will to communicate with the outgroup. For example, empathy has been found to be a strong motivational emotion which elicits positive attitudes or behaviors towards several outgroups. In sum Mackie, Smith & Ray (2008) conclude that the underlying distinctive features of the IET in understanding intergroup behaviour rely on the connection between emotions with categorization and social group identities. The collective emotions can better explain the occurrence of variable collective group reactions to outgroups in different contexts. This feature is the reason why a focus on emotions seems a more appropriate way to go through negative intergroup relations, compared to the more traditional views of the static nature of prejudice and stereotypes. In real life terms, ingroup norms and appraisals may change due to other societal factors, like when the

media and politicians change their rhetoric towards specific outgroups; a possibility that traditional theories on intergroup relations cannot easily grasp or explain.

"IET takes a peculiarly social perspective on emotion. Not only does it see emotion as springing from social categorizations, but as socially influenced at all levels. The social influence that group membership entails may change levels of group identification, appraisals, emotional experience" (Mackie, Maither & Smith, 2016, p.22).

The determinant factor that impacts these alternations from positive to negative appraisals is to be found in emotions. Emotions may change and then impact stereotypic beliefs and prejudicial attitudes and behaviours. And this is the reason why emotions are believed to be so closely linked to behaviours, more decisively than to any other construct (e.g. beliefs, intentions). As Mackie, Maither & Smith (2016) discuss "IET privileges action, or at least the proclivity toward, intention of, or inclination for action, toward or against other groups. IET sees emotion as readiness for action" (p. 21) and assumes a unique causal role between emotions and intergroup behaviour.

In short, when trying to acquire a comprehensive depiction of exclusionary behaviours –of any form- within the school context, one should always look beyond the obvious, profound individualistic actions of stereotyping and discrimination. It may be the case that the reasons for such behaviours and attitudes are not to be found only in people's (students, parents and teachers) background history, but rather they are the result of an underlying school culture that deliberately and stealthily promotes constant categorization dilemmas of "us" and "them", and magnifies the distance between the ingroup and the outgroup. Emotions have a central role to

play in what constitutes the school climate (see emotional geographies above), as well as on who is considered to be an unwanted outgroup.

The Integrated Threat Theory (ITT)

As already illustrated in the previous section, threats are conceived as such, at the group level, because they raise emotional concerns for the ingroup's welfare (anxiety, fears of losing superiority, fears of losing control over what is right and what is wrong). Bar-Tal and Teichman (2005) discuss the realistic conflict theory, according to which "rivalry over limited recourses and incompatible goals produce intergroup bias" (p. 251). The researchers call these biases shared psychological intergroup repertoire, which are built upon shared social representations of the competing group, referred to as the "enemy group". It is only rational to assume that in such difficult and complex situations like the current situation in Greece, where recourses and job opportunities have reduced dramatically, intergroup bias are very likely to emerge. Likewise, the arrival of the Syrian refugees may also raise concerns regarding the cultural differences between theirs and the Greek culture. A theoretical line that appeals to such concerns, i.e. the competition for limited resources and cultural distance issues is the Integrated Threat Theory proposed by Stephan and Stephan (2000).

The Integrated Threat Theory is based on the inherent human need towards the social life and the associated reality of ingroup and outgroup lives, which in turn generates constructs like ingroup identity and ingroup favouritism and outgroup identity and outgroup dislike. Following this line of thinking, intergroup relations come to the picture, along with prejudicial and stereotypic attitudes and behaviours. The Integrated Threat Theory offers a theoretical

framework in order to explain the emergence of prejudice and outgroup dislike. It asserts that groups which possess the power to inflict or harm in any way the ingroup, constitute a threat to the very existence of the ingroup (Stephan, Ybarra & Morrison, 2009), whereas outgroups that hold different values constitute "a threat to the unified meaning system of the ingroup" (p. 44). Stephan and colleagues (2009) argue that people may be predisposed to perceive threats from the outgroup, even if these do not actually exist, as an "ingroup survival instinct" that aims at protecting the ingroup from any potential harm or risk.

The theory, in its original version (Stephan & Stephan, 1996), regarded four types of threats, namely realistic threats, symbolic threats, intergroup anxiety and negative stereotypes. By the term realistic threats, the theory refers to a concern about physical harm, or a loss of recourses. Examples of realistic threats would include economy issues, safety issues, and health or wellbeing issues. When there are concerns regarding the integrity or validity of the ingroup's meaning system, then symbolic threats come into play. Examples of symbolic threats would include morality issues, values, standards, beliefs and attitudes. Intergroup anxiety regards the unpleasant feeling of distress when entering an intergroup interaction or when only thinking of such possibility. These feelings derive from the concern of rejection by members of the ingroup, due to the interaction with an outgroup, which may be considered an "insult" to ingroup norms. Negative stereotypes refer to the verification of the fears that cause anxiety and create a sense that an outgroup poses a threat and that interactions with the outgroup will lead to negative outcomes. Today, under a revised version, the integrated threat model mostly regards two basic types - realistic and symbolic threats (Stephan et al., 2009), whereas intergroup anxiety and negative stereotypes are seen as the result of experiencing either type of threat. Murray and Marx

(2013) discuss how realistic and symbolic threats increase intergroup anxiety and call for a focus on the affective dimensions in models of prejudice and threat. They argue that the majority of research has mostly focused on cognitive processes and has left affective components unassessed. An issue also highlighted by the Intergroup Emotions Theory.

Since the Integrated Threat Theory derives from the need to maintain ingroup identity, it is thereby logical to accept that children also adhere to the threat theory principles in intergroup contact or in the potential of intergroup contact. However, according to Social Identity Development Theory, and based on empirical support, ingroup identity is aged related, and appears to be of a latent nature before the age of 9 while strengthens and becomes more salient at around the age of 10 to 12 (Killen and Rutland, 2011). However, Bar-Tal and Teichman (2005), in accordance with Nesdale (1999, 2004) discuss that research findings indicate that "before the age of 7, or even 12, the prevailing tendency is that of ingroup favouritism, not necessarily accompanied with outgroup rejection" (p. 253). They emphasize, nevertheless, that such findings are qualified and that contextual factors may encourage earlier outgroup negativism and dislike. Such contextual factors may regard various dimensions of the school climate, like the emphasis given by the school concerning rules, norms, societal justice, relations among children, relations of the school staff and children, which are importantly, accordingly subjected to the wider societal stance. The reality created by great numbers of refugees and migrants arriving in Europe, is thereby a contextual factor that potentially impacts the in-school context. Attitudes toward refugees globally are deteriorating (Glen, Taylor & Dautel, 2020), as their mobility towards Europe seems never-ending and serious considerations are raised regarding the potential their staying becoming indefinitely permanent. The majority of European adults, report concerns, and

perceived threats posed (by the refugees) to the national security and experience anxiety over real world concerns when accepting refugees into their country (Wike, Stokes, & Simmons, 2016; De Coninck et al., 2018; European Commission, 2016; Jakobs et al., 2017). These feelings are intensified by the way they are being projected and communicated by the media (Glen, Taylor & Dautel, 2020).

In accordance, Debrael et al. (2019) found that news media consumption in Belgium seems to be related to fear of terrorism and negative attitudes towards newcomers (DeConinck et al. (2019), while De Coninck et al. (2019) in their study within four European countries (Belgium, Sweden, Spain and the Netherlands) found that public television consumption, popular online news consumption and trust in media were positively related to attitudes on migrants and refugees, while commercial television consumption was negatively associated to these attitudes. It is only rational to assume that such "threat narratives" in the wider community also shape children's attitudes toward refugees (Glen, Taylor & Dautel, 2020), even though the content of perceived intergroup threats expressed by primary school children has not yet been investigated. In line with this scarcity, Glen, Taylor & Dautel (2020) discuss that "though the existence of intergroup biases and prejudice in childhood is well established, more specific understanding about how to promote positive outgroup attitudes and behaviours toward refugees is sparse" (p. 73). Investigating whether children, likewise adults, consider intergroup threats when deciding to exclude an outgroup is a parameter that must be included in the equation of prejudice in children, and be considered when efforts for reducing prejudice are put forward.

An "emotional ace" in fighting prejudice: Empathy

Under threatening or uncommon circumstances social representations of the outgroup take the form of shared repertoire of intense negative opinions and attitudes amongst the members of the ingroup (Bar-Tal & Teichman, 2005) – collective negative emotions, the intergroup emotion theorists would argue. The arrival of refugees coming from Syria (or other Asiatic areas) in the European countries can be conceived as one such situation (threatening or unknown) that escalates homogeneous, simplistic, negative forms of representations of the outgroup. Even though authorities in the receiving countries may declare their intentions to integrate the newcomers as successfully as possible, yet this cannot be achieved without changing the associated emotional geographies (Ahmed. 2004; Zembylas, 2007, 2009; Kenway & Youdell, 2011), as well as people's collective negative representations. Let alone the fact that several European governments are recently changing their rhetoric concerning the refugee arrivals, taking a more unfavourable stance, which naturally impacts social representations and gradually dehumanizes the refugee identity. Under the potential of the establishment of such harmful representations, ways must be found to counterbalance this negativity by early intervening and alter them so as for the refugee identity to rehumanize again. One way to achieve improvement of outgroup depiction is by inducing empathy so as to expand the concept of the ingroup to fit members of the outgroup. In such a case the outgroup would stop constituting a threat for the ingroup, thereby negative perceptions like intergroup anxiety would be reduced.

As discussed earlier, the IET asserts that ingroup identification and self-categorization are key elements in the formation of the collective emotions towards the outgroup. It seems then logical to assert that ingroup members could expand self-perception and self-categorization, to

include former outgroups in their new, more inclusive group identities, as *Common Ingroup Identity Theory* suggests.

A great number of research interventions towards eliminating prejudice rest on such models. Cameron, Rutland, Brown, and Douch (2006) tested three models of extended contact interventions; the *Dual Identity* (Gaertner & Dovidio, 2000), the previously discussed *Common In-group Identity* (Gaertner, Mann, Murrell & Dovidio, 1989) and *Decategorization* (Brewer & Miller, 1984) and found that they were all beneficial in improving outgroup attitudes, with the Dual Identity model being the most successful. Their common ground rests on the promotion of expanding or loosening the group boundaries to include the outgroup, whereby apparently empathy plays a crucial role in achieving so. Cotton (1992) in her report of a review of 58 articles that regard research and theoretical reports on empathy comments that "virtually all considerations of the empathic process have noted the close connections between responding empathically to another person and perceiving that person as similar to oneself" (p. 8).

In line with the above, scholars who work in the field of empathy and perspective-taking seem to have some ideas as to how things can take a different route and prevent outgroup dislike. Galinsky & Moskowitz (2000) argue that perspective-taking changes representations of the outgroup to be more self-like. In addition, the researchers argue that "increasing the overlap between representations of self and representations of the outgroup, may go a long way in alleviating outgroup hostilities" (Galinsky & Moskowitz, 2000, p.720). The resulting increased "self-other" overlap can be proved beneficial for intergroup relations, since research has found that it is the ingroup's association with the self that leads to ethnocentric responses in favour of

the ingroup (Smith & Henry, 1996). "As the merging of self and ingroup increases, so too does the favouritism toward the ingroup" (Turner, 1987). If there is a way to include the outgroup in the self, then this would mean the rupture of the strict "self-ingroup" cohesion, in favour of an increased self-other overlap through perspective-taking or empathy. By extent this would lead to more positive evaluations of the target, which, in turn, might then generalize to the group as a whole (Batson, Chang, Orr and Rowland, 2002; Batson, Polycarpou, Harmon-Jones, Imhoff, Mitchener, Bednar et al., 1997).

The work of a number of researchers (Brewer, 1988; Allport's Contact Theory – see Pettigrew and Tropp, 2006 for a review), as already illustrated earlier, suggests that perceived connections to targets – members of the outgroup, can affect the use of stereotypes. In fact, the more personalized the contact is to the outgroup the less likely it is that one will attain to stereotypes to categorize during intergroup contact (Brewer, 1996). Batson, et al. (2002) in their research with adults, associate prosocial behaviour with the ability to appreciate (perspective taking) and sympathize (affective empathy) for an outgroup in need. The researchers conclude that perspective-taking and empathy are related to great gestures of altruism and consider them to be crucial elements of appropriate social functioning, whereas their absence is linked to actions of social aggression and extreme violence.

Research on empathy only, is accordingly revealing of its positive impact on reducing prejudice towards the outgroup. The Empathy-Attitudes-Action (EAA) model proposed by Batson, Chang, Orr, & Rowland (2002) proposes that empathy has the power to elicit positive behaviours towards an outgroup in need through the mediating role of positive outgroup

attitudes. A three-step process is described whereby (a) increased empathy towards the outgroup may lead to concerns about the outgroup's welfare (b) these concerns are translated into positive attitudes toward the outgroup as a whole (Batson, Chang, Orr, & Rowland, 2002), and (c) these positive attitudes lead to motivational arousal and increased helping intentions towards that particular outgroup, given that the need is salient to their group membership (Batson et al., 2002). Several studies conducted among adult populations provide the realm with strong support for the proposed model and expand its applicability towards different outgroups; people with disabilities, individuals with AIDS, people experiencing homelessness, or convicted of murder (Batson et al., 1997; Batson et al., 2002; Glen, Taylor & Dautel, 2020). What is even more important is the fact that research on empathy induction has revealed improvement of behavioural attitudes towards the targeted outgroup through the allocation of recourses to that specific group (individuals struggling with substance abuse), over other outgroups (Batson et al., 2002). Participants in this study were university students who, after presented with the story of a man addicted to drugs, not only did they decide to help him, but they also decided to allocate sources to the whole outgroup of people who suffer from substance abuse.

On the other hand, while empathy develops in early childhood, studies of brain plasticity provide strong evidence showing that empathy, even though harder, continues to develop, if efforts are oriented toward this direction. In other words, even if adults have developed fixed, habitual forms of thinking and behaviours, they can still be taught empathetic skills. or recall their old empathetic self and reactivate their latent empathic potential. (Krznaric, 2015).

Empathy or Perspective - Taking?

As illustrated above, research on empathy distinguishes between cognitive empathy (or perspective taking) and affective empathy and provides empirical support for both forms of empathy. There are, however, instances where the two terms, i.e. empathy and perspective-taking are used interchangeably, even though empathy stands a step higher regarding feelings for the other person/ or for the outgroup in general. Put differently, whereas perspective-taking is the ability to step in someone else's shoes, empathy implies strong feelings as if the person tastes the other person's joy or distress. In this sense both have another-oriented focus but, perspectivetaking is more of a cognitive nature and empathy, is mostly affective in nature. However, cognitive processing seems to precede the affective processing, for one must first acknowledge that someone else is in need, and then feel empathy (Batson et al., 1997). Batson and Eklund (2007) used scenarios of persons in need, in order to elicit empathic concern and discovered that the more one is perceived to be in need, the stronger feelings of empathy are. In their model perspective-taking was conceived as a mediator between valuing the other's welfare and empathic concern, whereas perceiving the other as in need was directly connected to empathic concern. Cotton (1992) argues from an empirical perspective that empathy includes both an affective and a cognitive aspect. Accordingly, Gallo (1989) asserts that an empathic response contains both a cognitive and an affective dimension, since it is either about a predominantly cognitive response, i.e. understanding how another feels, or about an affective communion with the other. Haynes and Avery (1979) regard empathy as the ability to recognize and understand another person's perceptions and feelings, and to accurately convey that understanding through an accepting response (p.527).

In another study by Gerace, Day, Casey and Mohr (2015) perspective-taking and empathy were examined through the lens of similar past experiences with another person. Their findings suggest that similar past experience with another person make it easier to take their perspective and elicits more empathic feelings. Preston and Hofelich (2012) also propose that common past experiences between an empathizer and a target, either consciously or unconsciously recalled during an interaction, employs an influence on empathy. On the one hand this finding reveals the centrality of the self to the perspective-taking effort and on the other hand it highlights implications for the immigrant or refugee populations who have been living for some time in the host country and now come across new comers, migrants or refugee. Would their similar past experiences lead to increased feelings of empathy or would fears that their benefits may be jeopardized, dominate over their empathic feelings? In fact, there is research evidence that shows how minorities groups view one another as competitors for scarce resources (Al Ramiah, Hewstone, Little, & Lang, 2013).

Regarding empathy induction Batson et al. (2002) discuss the issue of whether attitudes translate into action. They present evidence of the robustness of the empathy – attitude effect in relation to previous findings that show that increased empathy for a person in need increases the readiness to help that person, and ask whether this would mean increased willing and readiness to help the group as a whole. Batson et al. (2002) also found evidence of increased action, not only towards the whole outgroup, but also towards a fictitious person in need and his/her outgroup. In other words, the participants in their study were successfully induced to feel empathy for a fictional individual, whom they never physically encountered with, and then they were willing to offer help for the group he/she represented, which suggests behavioural initiative.

This finding adheres to what is referred to as the "secondary transfer effect" in intergroup *Contact Theory* (discussed below).

Neurophysiological evidence regarding empathy, however, shows a more blurred picture of what really goes on with empathic feelings. Gutsell and Inzlicht (2010) present evidence that it is more difficult to have feelings for an outgroup, since it seems that empathy's neurological traits are linked towards groups that resemble the self, and empathy arousal emerges when the brain identifies similar to the self traits. Gutsell and Inzlicht (2010) conclude that "a spontaneous and implicit simulation of others' action states appears to be limited to close others and that without active effort, may never be available to outgroups" (p.841). What's more is that the more disliked the outgroup is, the more difficult is for the individual to show affectionate responses towards that outgroup. On the other hand, de Vignemont and Singer (2006) report recent brain imaging results which suggest that individuals automatically share the emotions of others when exposed to their emotions. However, they question the automaticity of the procedure and propose a contextual approach that suggests a number of modularity factors that may impact the empathic brain responses. These factors are based on an appraisal process and concern the relationship between the empathizer and the target (familiarity, similarity, how urgent the situation is of a person in need), as well as the characteristics of the empathizer (personality, age, past experience), and also the situational context (e.g. is the target's distress or sadness justified?).

The good news is that even though it appears to be difficult to grasp the inner states of others that are not familiar to us, at least based on what neurological findings suggest, perspectivetaking may take over and compensate through its cognitive premises. Perspective-taking may

become the mediating factor, that will gradually make the unfamiliar other come closer to the self, and thus make it possible for empathic feelings to emerge, even at a later stage. As discussed earlier, Galinsky and Moskowitz (2000) assert that perspective taking can increase interpersonal sensitivity and understanding resulting in a prejudice reduction, while other scholars argue on its ability to increase helping towards others in need (Batson, Chang and Orr, 2002; Batson & Eklund, 2007).

Taken together, the information presented above regarding research on empathy and perspective taking indicate their effectiveness in prejudice reduction. As far as the present research concerns, the take-home conclusion is that when it comes to interventions, there is not so much importance in distinguishing affective from cognitive forms of empathy based on minor details, rather the importance lays in finding ways to promote it. At the end of the day, what really matters is not the neurological basis of empathy (or perspective-taking), rather than, given their core role in reducing prejudice, to find ways to promote them amongst children. As Batson et al. (1997) comment "affective empathy is a subjective state that is often thought to be the result of emotional cognition, or perspective taking" (in Glen et al., 2020, p.76). Thereby, the two terms will be used interchangeably for the purposes of the present research work.

Empathy in Children

As already discussed at several points throughout the previous lines, most studies on intergroup contact address adult populations or adolescents, whilst research with younger children is limited, either due to challenges posed by age related barriers, i.e. associated developmental difficulties (e.g. reading difficulties related to questionnaire studies and reading

comprehension abilities or parents' consent issues) or due to the lack of appropriate available standardized measures. Turner and Brown (2008) however, did study the effectiveness of a school-based intervention in the UK, called the "Friendship Project," which was designed to improve children's (9–11 years old) attitudes toward refugees by combining multicultural curricula, anti-racist interventions and an empathy-based component (in Glen, Taylor & Dautel, 2020). Findings revealed only low to moderate effects of improved outgroup short-term (not long-term) attitudes, while there was no evidence of the mediating role of empathy toward refugees. Accordingly, Glein (2017) in his study (being discussed below) with primary school children, also found that empathy was not directly related to outgroup attitudes nor to other type of prosocial behaviour.

Another recent study conducted in Greece in November-December 2017, assessed the effectiveness of a novel 6-session-45-minute (two sessions per week) prejudice-reduction inclassroom intervention for Greek preadolescents (aged 10–12 years) including an intervention and a control group. The intervention comprised of six pre-planned sessions in which children were encouraged to engage in interactive discussions, so as to start questioning their existing knowledge and attitudes toward refugees. The content of the sessions was designed by the researchers and included a variety of audiovisual materials (photos, video clips, diaries) to teach students about the culture and lifestyle of refugees in their countries of origin. These sessions combined both the anti-racist perspective and the multicultural approach to prejudice reduction. Altogether, the program aimed at imparting knowledge about refugees and asylum seekers, understanding prejudice and discrimination and also at promoting empathy. Measures (pre and post) included Attitudes toward Refugees (used by Turner & Brown, 2008), Attitudes toward

Foreigners, Empathy toward Refugees (also used by Turner & Brown, 2008), Tolerance and Xenophobia toward refugees, children's Emotional Empathy and children's Altruistic Behavior. Results obtained a week after the intervention had finished indicated that participants in the intervention group showed significantly more positive attitudes toward refugees as well as an increase in their general capacity for empathy, compared to participants in the control group who, with time, exhibited trends for lower empathy (Vassilopoulos, Brouzos, Kasapoglou, & Nikolopoulou, 2020). In addition, Vassilopoulos et al. (2020) also found that intervention group participants showed more tolerance and less xenophobia. Researchers conclude that classroombased interventions within the primary school context are not only easy to implement, but they also seem to produce promising results regarding prejudice reduction through empathy.

Other empirical data in the area of children's development and children's prosocial behaviour reveal that by middle childhood (around the age of 7 up to 11 years of age), children are capable of displaying more sophisticated forms of empathy, which are apparent on their interpersonal prosocial behaviours (Abrams et al., 2015; Eisenberg, Eggum, & Di Giunta, 2010). During this period, children are more competent in capturing the underlying context within a situation and gradually acquire a more nuanced comprehension of group dynamics (Aboud, 2003; Killen & Rutland, 2011), resulting in expressing more advanced forms of empathy (Glen, Taylor, & Dautel, 2020). As Glen, Taylor & Dautel (2020) argue, interventions that combine contact and social-cognitive programs that promote empathy are more effective in promoting positive intergroup attitudes. Likewise, correlational studies have found that the positive effects of such contact interventions are mediated by intergroup empathy (Vezzali, Hewstone, Capozza, Trifiletti, & Di Bernardo, 2017; Nesdale et al., 2005a, 2005b). It is also a fact that even though

there is research evidence indicating that children are willing to share resources, after empathy induction interventions (e.g. after given vignettes aiming to induce outgroup empathy - in Sierksma, Thijs & Verkuyten, 2015), still, much of the research work done among children is based on the interpersonal domain and does not consider the group dynamics that may impact children's decision to help, or their change in attitudes, thereby the important aspect of children's ingroup identity, ingroup norms and collective emotions is not examined (Glen, Taylor & Dautel, 2020). Sierksma and Thijs (2017) argue that group membership may formulate empathetic responses, within the intergroup domain and thus these responses should be investigated separately.

Abrams et al. (2015) did consider the group dynamics by creating minimal groups (based on colour of the groups) among 5- to 10-year-old children and found that those with higher levels of trait empathy were more willing to engage in outgroup-directed prosocial behaviours (Glen et al., 2020). The researchers concluded that extending the merits from trait empathy and promoting intergroup empathy would also lead to prosocial behaviour across group lines. In support of this assumption, Sierksma, Thijs, and Verkuyten (2015) found that ingroup biases in children's helping intentions could be overwhelmed by persuading empathetic understanding (in Glen et al., 2020). In the present thesis, a distinction between trait empathy and empathy towards the refugee is also incorporated, in order to examine how these may be interrelated.

In addition, Sierksma, et. all (2015) conducted a study among 8- to 13-year-old children, that used an experimental vignette, which was about a story of a child who was either part of their imagined friend group (an ingroup member) or not (an outgroup member). Only children in the experimental condition where prompted to take the perspective of the child in need. Results

showed that children in the no-empathy condition gave more resources to the ingroup member and fewer resources to the outgroup member, whereas, those in the empathy induction manipulation gave equally to ingroup and outgroup members. This suggests that empathy induction via prompting children to take the perspective of a child in need has positive effects on children's behaviour toward outgroup members. Accordingly, Olson, Dweck, Spelke, and Banaji (2011) found that 8-year-old children allocated more resources to groups of people that have been historically disadvantaged within their society (in Glen et al., 2020). Glen et al., conclude that given that children understand and respond to group-based need, it is possible that inducing empathy for an outgroup member could generalize into a willingness to help that group as a whole.

Glen (2017) investigated the application of the Empathy-Attitudes-Action model (Batson et al., 2002) among primary school children toward the Syrian refugee children in the UK, as a way to consider the neglected group dynamics dimension in research on empathy among children populations. As clearly implied, in order to test the empathy-attitudes-action model requires successfully inducing intergroup empathy. This had been previously successfully done though book story-narratives use and storytelling (e.g., Sierksma et al., 2015). In Glen's (2017) study a sample of 92 children between 8 and 11 years old participated in an intervention using a realistic refugee scenario and were randomly assigned to an information-only (control) or a story (intervention) condition. Prior to the intervention all children had been given a simple comprehensive definition of the refugee. The dependent measures in this study regarded empathy, outgroup attitudes toward the refugee, an allocation task, i.e. a measure of behaviour consistent with Batson's model which included the allocation of seven one-pound coins between

three groups, helping either Syrian refugee children, animals, or nature and finally a realistic helping opportunity task, i.e. helping intentions. Results revealed that despite of the brief character of the intervention (only one-time exposure to the narrative) empathy was successfully induced for the experimental condition group who scored significantly higher on the empathy task, albeit the control group also exhibited high levels of empathy. As Glen et al. (2020) comment this finding is encouraging as intergroup biases in empathy are well documented and as discussed earlier adults and children do not typically readily empathize with others, they perceive to be dissimilar to themselves (Chiao & Mathur, 2010; Vanman, 2016).

Moreover, children in the story condition reported greater realistic helping intentions toward the target, but no significant differences were found in children's outgroup attitudes or the number of resources allocated to refugees, since all children held positive attitudes and consistently allocated resources in favour of refugees in general. With regards to the allocation task in specific, Batson argues that choosing to allocate resources in favour of the empathy target's group implies a higher valuing of that outgroup's welfare over that of competing groups (in Glen et al., 2020). This is also suggested by Killen and Rutland (2011) who argue how children before the age of 10 are more likely to base their decisions on morality and perceived social justice, as well as on developmental research which finds that by the age of 8 years old, children's helping behaviours are significantly influenced by the perceived need and merit of the recipient (Moore, 2009; Schmidt, Svetlova, Johe, & Tomasello, 2016). What's more is that results on increased empathy and subsequent positive outgroup attitudes were shown to be relatively pervasive, since they had been found to be present when reassessed two weeks after the empathy induction intervention took place (Glen, Taylor & Dautel, 2020).

Empathy, Developmental and Gender Related Issues

The majority of the studies presented above indicate the mediation role of empathy toward prejudice reduction and/or positive behaviours toward the outgroup, while they also reveal that when dealing with children things may, and most of the times do, follow a different course, compared to adult populations. For once, empathy seems to develop with age, since empirical research clearly demonstrates that adults exhibit higher levels of empathetic feelings, understanding and responsiveness, compared to children, while younger children are found to be less empathetic and prosocial, than older children. These findings are probably the result of an age-related procedure that concerns the ability to read the social cues depicted in social interactions. Underwood and Moore (1982) argue that what distinguishes younger from older children is role-taking capacity. Cotton (1992) comments that "the developmental level of very young children is characterized by greater self-involvement, frequent objectification of others, and a tendency to experience and act on empathetic feelings only toward people very much like themselves in age, ethnicity, and gender" (p.6). In contrast, as discussed above, by middle childhood and on, children's growing sense of group dynamics and moral understanding potentially enables them to generalize the need of one person to the group as a whole.

Concerning gender differences Cotton's (1992) review of fifty-eight articles, books, and other publications also reveals that females of all ages appear to exhibit higher levels of empathetic behaviour, differences that particularly refer to affective empathy, compared to males. However, when it comes to empathy training programs, these seem to produce more profound results in male populations, rather than female and also in younger than older children. This may be attributed to a well-established phenomenon in psychological research; the ceiling

effect, which is observed when a person or a group is already scoring high in specific measures and thereby, the range of improvement becomes smaller. Thus, it may be the case that male populations have more "space" to change, compared to women, since research findings show that they are less empathetic, compared to females. Accordingly, if younger children are more prejudiced, compared to older children, as suggested by Aboud's sociocognitive theory (1988), then they too may have a broader range of change. This reasoning is in line with Hodson's (2011) findings which reveal how contact effects, like empathy induction, are moderated by preexisting levels of prejudice. In specific, Hodson meta-analysed 9 studies that address individual differences in matters of intolerance and found strong support that intergroup contact "works well (and often best) among intolerant and cognitively rigid persons-by reducing threat and anxiety and increasing empathy, trust, and outgroup closeness" (p.154). He, thereby, argues that contact mostly benefits prejudice-prone persons who are, after all, those most in need of intervention. In an analogous manner, if men and young children display less empathy, then they could also be more likely to exhibit higher levels of positive change due to an intervention that aims at improving outgroup attitudes and empathy.

The Contact Theory: A familiar and secure way

Direct Contact

In 1954 Allport proposed the *Intergroup Contact Hypothesis* which asserts that face to face intergroup contact (today referred to as direct contact) results in prejudice reduction. In its original form the theory refers to four indispensable conditions that need to be met in order to reach the desired outcomes. The key conditions are (1) equal status within a situation of

intergroup contact, (2) common goals amongst all parties, (3) intergroup cooperation, and (4) the support of authorities, law or custom (institutional support). Since 1954, Allport's theory has been tested and affirmed in a variety of contexts. Pettigrew & Tropp (2006) meta-analysis of 515 studies, recruiting more than 250.000 participants from 38 nations addressing diverse settings revealed that even though the negative relationship between contact and prejudice is stronger when all the conditions are met, in those cases where no condition is present, prejudice reduction still exists (Pettigrew et al., 2011). Based on these findings Crisp and Turner (2009) refer to the four conditions as "facilitating conditions". Since the Contact Hypothesis was first proposed, research in the era of intergroup contact has been fruitful and expanded beyond merely confirming the relation of positive relation of intergroup contact to prejudice reduction, but also incorporated and tested some other ingenious forms of intergroup contact (extended, imagined, vicarious), while it moved towards identifying the underlying mechanisms that lead to prejudice reduction when members of the outgroup, somehow, contact members of the ingroup. A variety of potential moderators and mediators have been put under study and there are some strong indications of their impact, since they have been repeatedly verified (for a review see Pettigrew & Tropp, 2006; 2008 Davies, Tropp, Aron, Pettigrew & Wright, 2011; Zhou, Gould, Aron, Moyer & Hewstone, 2019). In addition, there have been strong indications that intergroup contact mostly impacts affective dimensions of prejudice (feelings and emotions), rather than cognitive ones (stereotypes and beliefs) (Tropp & Pettigrew, 2005). Close friendships with members of the outgroup has been identified by Davies et al. (2011) meta-analysis study on direct contact as another powerful way of increasing tolerance and facilitating positive regard toward the outgroup. Research has also ruled out the possibility less prejudiced people to seek

for more outgroup contact and friendships, thus establishing causality of contact to prejudice reduction (Hewstone et al., 2014). On the other hand, there is strong evidence indicating that negative direct intergroup contact has unfortunate results for prejudice, since these negative results outrun the merits from positive contact. In other words, negative intergroup contact can cause more harm towards prejudice induction, than positive contact for prejudice reduction can (Schmid et al., 2008; Paolini, Harwood & Rubin, 2010), and if this happens, if direct contact fails, this may result in increased intergroup anxiety and unwillingness for future contact (Barlow et al., 2012). This finding, then, needs to be seriously considered, when researchers or practitioners design contact interventions, as these may prove to be not only insufficient, but also harmful for future intergroup contact intentions.

However, and even though there are settings that are naturally ideal in ensuring optimal conditions (as described by Allport), like schools, where students share equal status (at least they are supposed to), teaching methods promote co-operation to achieve superordinate common goals and these tasks are supported by the school authorities, still direct intergroup contact interventions (despite their profound effectiveness) are limited in the educational field. Paluck and Green (2009) argue that only a limited number of interventions carried out in natural settings was based on direct contact (in Vezzali, Stathi, Cadamuro & Cortesi, 2017). Reasons have to do with realistic barriers, like for example settings that undergo intergroup tension or where the parties of interest live in segregated areas.

Another important matter to consider is that most of the research conducted mostly regards adult populations, usually university students, or adolescents, with measures that adhere to their

mental processing, and less work has been done with younger children within the school context. For instance, to our best knowledge, there are no instruments meant to measure perceived intergroup threats for primary school children. Tropp & Prenovost (2008), however, who have focused on the meta-analytical findings about contact, found that in a total of 515 studies there were 82 studies that had investigated intergroup contact among children. Tropp & Prenovost (2008) compared the effects obtained with children, adolescents and college students and interestingly found that they did not significantly differ from each other. In other words, the strength of effects based on intergroup contact and measures of prejudice reduction was equivalent among these three different age-groups. The metanalysis of studies of direct contact that exclusively regarded children's samples and which incorporated outcome measures of participants' feelings, evaluations, beliefs, and / or stereotypes regarding various outgroup members showed that, similarly as in adult populations, greater levels of intergroup contact are positively related to lower levels of intergroup prejudice (Tropp & Prenovost, 2008).

Another comparison between studies with children conducted within the school context and in other intergroup contexts (e.g. residential or recreational settings) showed that the effect of contact for prejudice reduction was consistent and similar across all settings, i.e. no significant differences were attributed to the context within intergroup contact was taking place. However, this was not the case, when the comparison regarded structured optimal contact (Allport, 1954) to non-structured conditions of contact within the school context, where results indicated that structured intergroup contact resulted in statistically significant greater effects (Tropp & Prenovist, 2008). Another important finding from this meta-analysis that regards the school context is that numerical representation of children from different groups within the classroom

may significantly impact the development of intergroup relations. In particular, research evidence showed that European American children in ethnically balanced classrooms held more positive attitudes toward non-European American children, compared to European American children attending predominantly European American classes. However, general trends among ethnic majority children reveal favorable ingroup bias, whereas minority children tend to evaluate majority outgroup children equally positively as their own ingroup, or even more positive than their own ingroup. This finding is in accordance to *Social Identity Theory* that suggests that ingroup identification and ingroup love are subjected to the perceived status of the ingroup, compared to other groups; minority groups may be perceived as less influential.

Overall, these findings suggest that balancing children's in-classroom status by relevant support from the institution (i.e. the school) e.g. by balancing representations of the minority and majority language through their concurrent incorporation within the classroom results in improved attitudes toward the minority language group of children and these results are generalized to the whole outgroup, not only toward their classmates. However, when it comes to minority children, they tend to generally rate children from both the majority and the minority positively. Thereby, Tropp and Prenovist (2008) conclude that children of different ethnic status, as well as adults may differ in how they view intergroup relations. In addition, children at different ages may also see intergroup relations in a different way. Finally, Tropp and Prenovist's (2008) meta-analysis provides support to that features of the school environment can be structured to promote intergroup contact.

Extended Contact

More interestingly, research offers evidence of the impact of more indirect forms of contact on prejudice reduction (Zhou et al., 2019; Feddes, Noack & Rutland, 2009; Ioannou, 2009; Turner, Hewstone, Voci & Vonofakou, 2008). The original definition of extended contact, as given by Wright et al. (1997) was "knowledge that an ingroup member has a close relationship with an outgroup member" (Wright et al., 1997, p. 74). According to Wright et al., such knowledge results in prejudice reduction and more positive attitudes toward the outgroup. A later version was proposed by Vezzali, Hewstone, Capozza, Giovannini & Wolfer, 2014) who introduced the *Extended Contact* model, that has a more comprehensive nature; one that also considers the mediating and the moderating role of other factors.

The advantage of extended contact, over direct contact is that it may be implemented when direct contact is not an option, like in cases where people live in segregated settings, either due to war situations or post-conflict contexts (Zhou et al, 2019; Di Bernando et al., 2017; Hewstone et al., 2014). There is both correlational and experimental evidence which supports the effectiveness of extended contact, and more surprisingly, there is evidence which indicates that extended contact may even prove to be more efficient, as intergroup anxiety is relatively lower, in situations of merely knowing member(s) of the ingroup who interact with the outgroup (Zhou et al., 2019; Hewstone et al., 2014). Extended contact has also the power to alter ingroup norms for the outgroup (e.g. "we like them") (Zhou et al., 2019; Hewstone et al., 2014; Wright et al., 1997) and outgroup norms (perceptions that "they like us"), (Zhou et al., 2019) which may either be of an affective or of a cognitive nature, while extended contact produces stronger results when engaging similar others, as this helps to identify with the role model (Wright et al.,

1997). Similarly, the degree of closeness one has with the ingroup member that holds direct contact with an outgroup impacts the relation of intergroup contact to prejudice reduction (Hewstone et al., 2014). Zhou et al. (2019) discuss that what actually matters, and is related to the above merits of extended contact, is not the actual extended contact, but rather the perception of extended contact, since for this form of contact to work needs to be diffused to other ingroup members.

In line with the above, research provides evidence of the generalizability of positive outgroup attitudes from one outgroup involved in the contact situation with an ingroup member, to the whole outgroup (Brown & Hewstone, 2005), as well as evidence of the secondary transfer effect which regards the expanding of positive feelings or attitudes, not only towards the "target outgroup", but also other outgroups (Pettigrew & Tropp, 2006; Hewstone et al., 2014). Moreover, Wright and colleagues (1997) argue that extended contact increases perceived overlap between the self and the outgroup, evaluated as the extent to which the ingroup member includes the outgroup member in the self and the above results were pervasive, even after controlling for direct contact with outgroup members (Hewstone et al., 2014). Thereby, ingroup norms, outgroup norms, intergroup anxiety and transitive-inclusion-of the-outgroup-in-the-self (TIOGR, Zhou et al., 2019) are investigated for their mediating role between extended contact and prejudice reduction (or attitudes improvement). Interestingly, extended contact has been verified, not only among university students, but within the educational setting as well, with interventions that resulted in positive results for prejudice reduction (Cameron & Rutland, 2006; Cameron, Rutland & Brown, 2007). However, the majority of the research conducted in the educational field regards cross-sectional studies (Di Bernardo, Vezzali, Stathi, Cadamuro & Cortesi, 2017).

More recently and due to the increasing mobility of refugee populations worldwide research on extended contact has also addressed the specific target group. However, to date, there are only two prominent intervention studies that used extended contact and attempted to impact young children's views and attitudes toward the refugees (Zhou et al., 2019). The first was conducted by Cameron, Rutland and Douch (2006) and it was an intervention that aimed at improving children's attitudes toward refugees and intended behaviours toward (hypothetical) refugee children (e.g., how much they would like to play with a refugee child or invite him/her to their house) (in Glen, Taylor & Dauter, 2020). The intervention resulted in improved attitudes toward the refugees but had no impact on children's behavioural intentions. Furthermore, this study did not find any age-related differences between younger (5-8 years of age) and older children (9-11 years of age). The second was a pilot study conducted by Glen (2017) and was based on an intervention which induced empathy toward Syrian refugee children (in Glen, Taylor & Dautel, 2020). In this study 92 children between 8 and 11 years old were randomly assigned to an information-only (control) or a story (intervention) condition. Using a realistic refugee scenario in schools across NI children were randomly assigned to an information-only (control) or a story (intervention) condition. Results showed that children in the brief narrative intervention reported greater helping intentions toward the Syrian refugee children. No significant difference on outgroup attitudes was detected, since children in both groups expressed favourable attitudes toward the refugee. The study had also incorporated a behavioural measure, i.e. the children were asked to allocate resources to different competing groups, one of which was the Syrian refugees. Even though no significant differences were found between the control group and the intervention group, yet still children in both conditions were again positive and allocated money

to the Syrian refugee children (Glen, Taylor & Dautel, 2020). Regarding research with children, Zhou et al.'s (2019) meta-analysis found no significant age-related differences, similarly to Tropp and Prenovost (2008) findings. This finding is especially important, considering that the meta-analysis included 115 studies and used participants who cover a wide age range, from 6 to 75 years, and reveals that extended contact works across almost the whole life span (Zhou et al., 2019). The null moderation by age is supported, not only by several research in extended contact, but was also found in Davis et al., (2011) meta-analysis of research with direct contact. In specific, Cameron, Rutland and Brown (2007) found no moderation by age between 6-8-yearold and 9-11-year-old children, a result that replicated previous findings by Cameron et al. (2006) as reported above. Another study, conducted by Cameron et al., (2011) found improvements in behavioural intentions only among the younger participants. Altogether, these findings show that there may be a different developmental path than the one proposed by Aboud (1988), which shows that not only do older children hold equally prejudicial attitudes as those held by their younger peers, but they may also be more reluctant to change stereotypical attitudes, i.e. to transform their representations of the outgroup after a prejudice reduction intervention takes place, a finding that directly points out to what the SIDT supports. That is to say that for older children ingroup salience is more profound and if combined to ingroup identification, then ingroup norms take on, regarding children's outgroup prejudicial attitudes.

Two more important findings in Zhou et al. (2019) meta-analysis, which in essence replicate Davies et al (2011) meta-analysis within the direct contact research domain, regard the discrepancy between research results in the European, compared to the North American context, as well as "a trend whereby correlational effects are larger than the experimental effects "(Zhou

et al., 2019, p. 154). The fact that there were larger effects found within the European context indicates the importance of considering the surrounding context (both the micro- and the macro- context) in the development of any theoretical models on the one hand, and that we should be very careful when comparing research results coming from different contexts, as generalizability of such data may not apply, on the other.

Even though, and as illustrated above, the positive effect of extended contact for prejudice reduction has been verified by many researchers (De Tezanos-Pinto, Bratt & Brown, 2010; Gomez, Tropp & Fernandez, 2011; Turner, Hewstone and Voci, 2007), yet most of them were cross-sectional studies and the need for more experimental studies, as those with children within the educational context, is highlighted by the majority of scholars in the field. Lately, extended contact has been distinguished from *Vicarious* contact, (that is being presented below) and *Parasocial contact*, which describes contact with outgroup members through the media (Schiappa, Gregg & Hewes, 2005), implications of which were indirectly addressed in the *Social Representations* section. Examples of vicarious contact are discussed below. Moreover, besides the role of the intervening factors discussed above, there are some additional factors that have been extensively studied and have proved to either moderate or mediate the relationship between contact and prejudice. These are being addressed in more detail below, after vicarious contact is presented.

Vicarious Intergroup Contact

One form which was originally thought to fall under the umbrella of extended contact is vicarious contact. However, more recently vicarious contact is distinguished from extended contact in that it regards observing direct or indirect intergroup contact (and not just merely

having the knowledge that such contact takes place) (Vezzali, et al., 2014). As Vezzali et al. (2014) argue observing a successful cross-group interaction (either witnessing a face-to-face interaction or through written or audio-visual media) urges ingroup members to have positive attitudes towards the outgroup. Vicarious contact is, thereby conceptually distinct from extended contact (Cameron, Rutland, Brown & Douch, 2006; Dovidio, Eller & Hewstone, 2011; Mazziotta, Mummendev & Wright, 2011; Vezzali et al., 2014). Vicarious contact has been found to positively impact the perceived importance of future contact, whilst it is negatively related to anxiety for future contact (Ioannou, AlRamiah & Hewstone, 2014). Importantly, vicarious contact has been found to reduce implicit prejudice (Weisbuch, Pauker, & Ambady, 2009) and improving real behaviour (Mallett & Wilson, 2010). Research on vicarious contact can be experienced and incorporated through the media, as with the Sesame Street and Different and the Same, i.e. two TV programs for children which project intergroup friendship. Research outcomes of the evaluation of the aforementioned programs reveal their positive impact on racial attitudes and cross-group friendships (Di Bernardo, et al., 2017). Research on vicarious contact has been also conducted within the educational context with results indicating its effectiveness for both; children and adolescents' samples (Di Bernardo et al., 2017). This has been mostly done through utilizing ad hoc created stories that engage ingroup and outgroup members becoming friends and these target outgroups have also included refugees and immigrant populations, e.g. Asians living in the UK (Di Bernardo et al., 2017). These studies highlighted the mediating role of inclusion of the other in the self, as well as the moderating role of ingroup identification of the vicarious contact (Cameron, Rutland & Brown, 2007; Cameron, Rutland, Brown, & Douch, 2006; Cameron, Rutland, Hossain, & Petley, 2011). Cameron and Rutland (2006) used such stories in

the elementary school context engaging non-disabled and disabled child characters in friendship situations and found significant prejudice reduction toward the disabled.

Liebkind et al. (2018) implemented vicarious contact within secondary schools in Finland, through a field experiment which included a teacher-led vicarious contact intervention. The intervention consisted of three weekly 45-min sessions conducted by the teachers of the schools and not the researchers, as in the majority of field experiments. The intervention incorporated 12 first person narrative stories about intergroup friendship. In order to enhance identification with the narrator, every story included a picture and a short description of the hobbies, likings and/or family relations of the narrator (Liebkind et al., 2018). Contrary to the researchers' hypotheses, results revealed an unexpected finding; outgroup attitudes were overall deteriorated, except from one experimental subgroup, i.e. girls who had more negative outgroup attitudes at the outset. Researchers attributed these results to the increasing negative reports from the media in Finland while their research was going on. Despite the unanticipated findings, a buffering effect was detected, in that outgroup attitudes deteriorated less in the experimental groups, than in the control groups, as if the experimental condition "had made outgroup attitudes more stable in the experimental groups, whereas attitudes were more free to vary in the control groups" (p.5). Liebkind and McAlister (1999) had found similar results, concerning the buffering effect in the experimental condition and recently Arnadottir et al. (2018) also found evidence of this effect. Moreover, findings showed improved outgroup attitudes in the group of girls who had the most prejudiced beliefs, prior to the intervention. Altogether the intervention seemed to work better for girls than boys, and this was attributed to that girls are more sensitive to the normative context and appear to have a closer and more supportive relationship with their teachers,

compared to boys (Liebkind et al., 2018). Consistent with the use of book stories, Vezzali, Stathi and Giovannini (2012) in their study with Italian adolescents found that reading intercultural books was related to positive attitudes toward the immigrants, reduced stereotyping of immigrants and increased contact behavioural intentions; effects dependent upon inclusion of the other in the self and reduced identification with the Italian ingroup (Di Bernardo et al., 2017). Barker (2012) implemented another form of vicarious contact, this time using social networking sites and found a direct relationship between vicarious racial group contact and positive expectancies about future interactions with members of the racial outgroups, as well as an indirect relation of contact to outgroup attitudes via perspective taking.

Mediators and Moderators of Direct and Extended Contact

Hewstone et al. (2014) provide evidence of several moderators and mediators in the relationship between direct contact and prejudice reduction as well as between indirect contact and prejudice reduction. Direct contact was found to be moderated by the varying levels of categorization during contact, a finding also supported by research findings in the SIDT (Killen & Rutland, 2011). In addition, contact setting, target group, and majority versus minority group status, have been also found to have a moderating role (Hewstone et al., 2014). Regarding moderators Hewstone et al. (2014) comment; "moderation effects qualify the extent of the contact effect, not its existence" (p.40) and adhere to the *when* contact works, while mediators provide information of *how* it works (Hewstone et al., 2014). Researchers also found evidence for three mediators, namely intergroup anxiety, empathy/perspective taking and threats (realistic, symbolic) mostly related to direct contact, as well as more inclusive ingroup and outgroup norms

and increased inclusion of the outgroup in the self, factors that mostly relate to extended contact (Wright et al., 1997; Turnet et al., 2008). Interventions that aimed at inducing empathy through intergroup contact and social-cognitive programs, however, were the most effective in advancing positive intergroup attitudes and this is in line with the findings discussed earlier concerning the positive effects of extended contact interventions through intergroup empathy (Vezzali, Hewstone, Capozza, Trifiletti, & Di Bernardo, 2017). These findings indicate the substantial role of empathy in overcoming ingroup boundaries while intergroup contact takes place and reach for the outgroup. In line with the above discussion on the potential mediating role of several factors on direct or indirect forms of contact, Tausch et al. (2007) had previously shown in one of their study that mere quantity of outgroup contact had a direct positive effect on outgroup attitudes, whereas the quality of the contact had an indirect effect on outgroup attitudes, through symbolic threat and intergroup anxiety. Thus, even though both categories of intergroup contact result in positive outcomes for prejudice reduction, the mediating mechanisms incorporated do not necessarily follow the same path. Finally, research on the distinct form of vicarious contact has also provided indicators of mediating factors (such as inclusion of the other in the self) and moderating factors (such as ingroup identification) of the vicarious contact effects (Cameron, Rutlan, Brown & Dough, 2006; Cameron, Rutland, Hossain & Petley, 2011).

Imagined Contact

Imagined contact occurs when individuals are presented with imagined contact scenarios of interactions with members of the outgroup. In specific in studies that use imagined contact interventions, individuals are asked to imagine having a positive encounter with a member or

members of the outgroup. Since Crisp and Turner introduced the imagined intergroup contact technique in 2009, a considerable amount of research data confirms the beneficial impact of promoting contact on imagined basis for prejudice reduction (Turner, Crisp & Lambert, 2007; Crisp & Turner, 2009; 2012; Husnu & Crisp, 2010; Turner & West, 2012), even in challenging contexts. In specific, imagined contact Interventions have been found to work well in contexts that undergo tensions, like in the case of the Cyprus context, where imagined contact between Greek Cypriots and Turkish Cypriots helped eliminate the emotional distance between members of the two groups. Furthermore, Husnu and Crisp (2015) found evidence of the mediating role of perspective taking in the relationship between imagined contact and increased positive evaluations of the outgroup. Stathi and Crisp (2011), also used imagined contact interventions and found evidence of the member-to-group generalization effect. In specific they found that participants who imagined a positively toned encounter with a single outgroup member consequently felt more confident about future interactions with the outgroup in general. They also found that imagining contact was highly effective at achieving generalization when group versus individuating information was salient (Stathi & Crisp, 2011). Imagined contact also appeals to the well-established secondary transfer effect that was found to apply to both direct and extended contact (Hewstone et al., 2014; Pettigrew, 2009; Psaltis, Hewstone & Voci, 2012; Tausch et al., 2010). The secondary transfer effect infers that "contact effects generalize from encounters with one outgroup to attitudes toward other outgroups outside that contact situation", (Hewstone et al., 2014, p. 47). The secondary transfer effect proved to be achievable in both direct and indirect forms of intergroup contact (Hewstone et al., 2014; Pettigrew, 2009; Psaltis, Hewstone & Voci, 2012; Tausch et al., 2010), even after controlling for contact with ethnic

minorities in the case of interethnic contact (Hewstone et al., 2014, p. 47). Evidence from three cross-sectional studies and one longitudinal study provide strong support for the secondary transfer effect, even in post-conflict locations (Cyprus and Northern Ireland), as well as evidence for a causal relationship from intergroup contact to reduction of prejudice (Lolliot, 2013). Likewise, Vezzali and Giovannini (2012) found evidence for a secondary transfer effect of reduced intergroup anxiety and perspective taking, which generalized from the migrants' outgroup to the disabled and homosexuals, who were not part of the target outgroups in the study.

Imagined contact interventions have been also successfully implemented in school settings like in Cameron, Rutland, Turner, Holman-Nicolas and Powell (2011) study (mentioned earlier) where non-disabled children (aged 5-11 years) were asked to imagine having contact with disabled children. The study, even though relied on only one-time intervention, revealed a positive impact on outgroup attitudes, as well as on stereotypes of warmth and competence, and contact intentions (in Di Bernardo et al., 2017). In another two studies with primary school children (aged 8-11 years) the targeted outgroup were immigrant children. Imaging a positive interaction with an unknown immigrant child once a week for three consecutive weeks resulted in increased intentions to meet in the future with the outgroup, while implicit prejudice was reduced. Outgroup trust was also fostered in the intervention group, and these results were obtained one week after the intervention took place. The researchers found no evidence for the moderating role of ingroup identification (Vezzali, Capozza, Giovannini & Stathi, 2012; Vezzali, Capozza, Stathi & Giovannini, 2012). Vezzali et al. (2015) incorporated an intervention which was based on a combination of two theoretical lines, namely the imagined contact theory and the

common ingroup identity theory. Their focus of interest was on investigating the possibility that combining two theoretical lines would lead to more profound positive results concerning the depiction of the outgroup, which was immigrant children in Italy. In addition, the researchers wanted to test for improvement in helping intentions and actual behaviors toward the outgroup. and also to evaluate the longevity of any potential beneficial outcomes, i.e. 2 weeks after the intervention had taken place (in Di Bernardo et al., 2017). The researchers tested their assumptions on two experimental (imagined contact common ingroup identity condition and imagined contact condition) and one control group (no intervention). Results, one week after showed that the two experimental groups did not significantly differ concerning helping intentions, but the imagined contact common ingroup identity condition group was the only one which had significantly higher helping intentions compared to the control group (Di Bernardo et al., 2017). Two weeks after the last interventional session, results concerning helping behavior mirrored results on helping intentions, thus indicating that when it comes to more "demanding" outgroup measures, i.e. helping intentions or behaviors, and not mere attitudes, it might take more powerful combined interventions to achieve significant favorable changes. Overall, the above findings regarding imagined contact interventions reveal the applicability and the effectiveness of imagined contact in educational settings, but also highlight the challenging necessity for researchers and practitioners to design more complex interventions, that stand on more than one theoretical foundation. However, despite the amazing numerical evidence supporting imagined contact interventions (for a review see Miles & Crisp 2014 meta-analysis), for the majority of these researches, data regard improvements in attitudes or intentions (Tropp & Pettigrew, 2006; Husnu & Crisp, 2010; Crisp & Husnu, 2011; Husnu & Crisp, 2015), and not

actual behaviors. Even though attitudes are considered to be correlated to behaviors, still they don't allow for safe predictions as to how they will be translated into real life action. As Crisp and Husnu (2011) comment "examining the effects of imagined contact on a wider range of outcome measures, and not only intentions, but actual behavior, will be an important endeavor for future research" (p. 284).

In line with the above findings Crisp and Turner (2009) see different forms of indirect contact, like extended and imagined contact on a continuum which aims at reducing prejudice and prepares the ground for the occurrence of actual, face to face positive intergroup contact. However, other researchers choose not to see indirect forms of contact as mere supplements of the direct contact that is to follow, rather they assert that each form of contact may work through different mechanisms which subsequently have something unique to offer in fighting prejudice, thus each type of contact is independently important (Turner, Hewstone, Voci, Paolini & Christ, 2007).

Electronic- or E-contact

As technology develops, new inspired forms of contact emerge to adopt to the new perspectives offered. One such example is Electronic (or E-contact) which was first incorporated by White et al. (2012; 2014). E-contact refers to ingroup member(s) interacting with outgroup member(s) over the internet, and can be text-based, video-based or a mixture of both text- and video-based online interactions (White, Abu-Rayya, & Harvey, 2015). Empirical evidence shows that electronic intergroup contact has been successfully worked as a means of reducing interreligious prejudice between Christian and Muslim students in Australia - and these results proved

to be long-lasting – (White et al., 2012; 2014), as well between Catholic and Protestant students in Northern Ireland (White et al., 2018a). This form of contact has also been found to be very effective in altering intolerant people's attitudes toward outgroups with different sexual orientations (White et al., 2018b). Additionally, electronic contact with people diagnosed with mental problems (schizophrenia), even though a brief contact, resulted in reduced fear, anger, and stereotyping toward people with schizophrenia in general, compared to a control condition (Maunder, White & Verrelli, 2018).

Different theories in action and the Social Context: Filling the gaps of the puzzle of prejudice

The theories that were briefly presented above, all focus on the collective group processes which subordinate any individualistic personal qualities and beliefs, and this is a core assumption they all share; group norms guide and determine the actions and beliefs of the group members. These theories attempt to understand how intergroup relations are formulated to result in an ingroup versus outgroup constant antagonism, as well as how the degree of such antagonism changes in different contexts. The ITT, the IET and the SIT (and SIDT), are somehow interconnected, in that they all recognize the importance of self-identification with the in-group and could be seen as "complementary". The SIDT elucidates the conditions under which prejudice may emerge in children (beyond the age of 7 years), these being degree of ingroup identification, threats posed by the outgroup and ingroup norms (i.e. whether the ingroup holds positive or negative attitudes for the outgroup), so much as to become part of the self, while the ITT provides explanations regarding the sources that provoke intergroup antagonism and IET regards the collective emotions related to these threats and provides predictions for subsequent

intergroup behaviours. On the other hand, contemporary contact practice builds on the accumulative knowledge coming from these theories, sometimes "leaning" more on one than the others, and attempts to create contact conditions that would bring the "opposed" parties closer and, ideally, would make them visualize parts of the outgroup in the ingroup. In this sense, any interventions that rely on contact theory, are also relying upon interweaved premises of the SIT, ITT and IET.

The aforementioned theories share the same orientation which is to focus on collective processes that adhere to group-based phenomena. In essence, they all underline the importance of the social context and the decisive role it plays being the arena in which group dynamics are perpetrated, finally resulting in determining intergroup relations. For example, Rutland illustrates how "different forms of prejudice are subjected to different levels of societal tolerance" (in Durkin, 2004, p. 322). Durkin (2004) also argues that children are strongly influenced by the value systems of their societies. Understanding the role of the social context when examining intergroup relations, prejudicial attitudes and stereotypical beliefs becomes increasingly apparent in conflict (Bar-Tal & Teichman, 2005) or unstable settings (like, for instance, in societies that undergo a deep financial crisis). Bar-Tal and Teichman (2005) call these biases shared psychological intergroup repertoire, which are built upon shared social representations of the competing outgroup. Bar-Tal and Teichman (2005) make a strong case of how societal dynamics and societal channels (e.g. parents, teachers, the mass media) create shared stereotypes and prejudices amongst members of the younger generations (children and adolescents). Killen and Rutland (2011) also highlight the more extreme nature of cultural exclusion which is based on nationality or religious affiliation, compared to racial or gender exclusion. In their words; "group

identity for nationality and religion, when salient has a powerful bearing on children's evaluation of exclusion based on culture" (p.135). Accordingly, Ruble et al. (2004) showed that the unique political and social elements in a culture need to be considered when investigating prejudice in children, especially when these elements are frequently mentioned in public debates and media reports. All this information coming from distinct theoretical lines must thereby considered and processed accordingly. Rutland (2004) discusses that "at present no one theory can fully explain the development of intergroup attitudes in children" (p.260). Rutland also argues that even though Allport's (1954) original contact hypothesis provides a powerful framework to study and promote intergroup relations, in general proves to be relatively inapplicable in real world situations - at least in the original traditional way Allport had stated it - where optimal conditions cannot be assumed. In addition to this limitation, the contact hypothesis, in its original form, does not explicitly account for other elements of the puzzle of prejudice, like for instance, issues relevant to group identity like group identification and intergroup anxiety. Thereby, it only makes sense to argue that it would take a real multidisciplinary developmental approach, thus a conceptual model that entails features of every related theory on that matter, and also accounts for age-related differences, to tackle the "monster" of prejudice. This view is also supported by empirical evidence coming from interventions that have either incorporated combinations of theoretical lines (e.g. Vezzali et al., 2015) and is highlighted by several scholars /researchers in the field of prejudice in their suggestions for future interventions (Nesdale, 1999; Durkin, 2004). Study 1 in the present thesis, therefore, endeavours to develop of a comprehensive conceptual SEM model that will respond to the need of a multidisciplinary stance in dealing with intergroup contact and prejudice.

Thus far (in the present section) research findings examining the applicability of the contact theory in a variety of contexts was presented, with reference to the various forms of contact that had been put forward by different studies. The two main categories of contact distinguish between direct and indirect forms of contact. It has been made clear that direct contact, even though a far promising pathway in reducing prejudice, is in some occasions difficult to achieve. As Hewstone et al., (2014) discuss:

"with a number of countries either still experiencing or having just emerged from periods of pervasive intergroup animosity, contact theory is, nowadays, being put to its most stringent test as contact theorists try to uncover ways in which intergroup conflict can be reduced and reconciliation fostered" (p.39).

Under such unfavourable conditions, the most feasible option points out to the incorporation of indirect forms of contact, which serve as a way to prepare the ground for future direct contact, while they exhibit impressive positive results on their own, in reducing prejudice, that is to say, even in the absence of direct contact. Additionally, as Zhou (2019) illustrates, extended contact is conceived by many researchers as encouraging direct friendship (Mallett & Wilson, 2010; Schofield et al., 2010; Vezzali et al., 2015). The recent meta-analysis of 115 studies by Zhou (2019) also shows the important contribution of indirect contact in improving intergroup attitudes. The most impressive outcome of this meta-analysis, that covers the past 20 years of research in extended contact (i.e. the knowledge of peer(s) or friend(s) having contact with member(s) of the outgroup) is that extended contact results in similar positive outcomes as those achieved by direct contact through friendship counterparts. These findings are of paramount

importance, considering the ease of applying extended contact interventions, compared to direct contact interventions.

Symbolic Play - Using Puppets in the Classroom

"A puppet is an inanimate object that, in the hands of a puppeteer, comes to life" (Kroger & Nupponen, 2019, p.393). In conjunction with the underlying processes implied in imagined contact, using a puppet to promote some sort of a goal may prove to be an indispensable tool when addressing children populations. In their 2019 literature review Kroger & Nupponen present 15 papers that regard school age students (5 to 18 years of age) and the implementation of puppets as a pedagogical tool. All studies include empirical evidence concerning the impacts and outcomes of puppets as an educational tool or as a strategy in formal education. Their review reveals 5 potential uses of puppets within the formal educational context, these being; 1) generating communication (Ahlcrona, 2012; Korosec, 2012), 2) supporting a positive classroom climate (Korosec, 2013; Evans et al., 2009), 3) enchasing creativity (Bredikyte, 2002; Fisler, 2003), 4) fostering co-operation and integration into a group (Hackling, Smith, & Murcia, 2011; Korosec, 2012; Korosec, 2013; Mehrotra, Khunyakari, Natarajan & Chunawala, 2015) and 5) changing attitudes (Whiteland, 2016; Dunst, 2012, 2014). As Kroger & Nupponen (2019) argue puppets are proved to be a useful pedagogical tool, which can be more often utilized in schools, not only addressing young students, but also, under circumstances and through specific adaptations, they can be used with older students as well. Accordingly, it seems that most of the teachers themselves also hold positive attitudes toward using puppets in their educational practice (Korosec, 2013), while those who are more sceptical, are so due to their perceived lack

of relevant expertise and practicing throughout their studies. Altogether, this discrepancy between attitudes and practice is translated into limited actual use of puppets in formal education (Kroger & Nupponent, 2019), especially when it comes to primary or secondary school teachers.

However, research evidence coming from Kindergarten or special education contexts reveals more widespread use of puppets. Salmon and Sainato (2005) report a considerable amount of research evidence that supports the effectiveness of using puppets with pre-schoolers as an instructional tool in the classroom, in terms of enhancing children's interest and engagement. They also argue that puppets may be successfully implemented in teaching prosocial behaviours to children. Salmon and Sainato (2005) also address the issue of the physical features of the puppet and discuss that the more attractive they are (more colourful, assorted textures etc.) the more interest and attention level they provoke. In addition to that, child-sized puppets are more appropriate to promote socially appropriate behaviours, since they increase interest, they sustain children's attention and they also serve as demonstrators, to reinforce key concepts and newly acquired skills through role-playing solutions and fantasy play (in Salmon & Sainato, 2005).

No matter of the limited practice in formal primary and secondary education, there are still some amazing findings that show the power of such interventions. For example, puppets prove to be more easily trusted by children when talking about sensitive or painful issues, compared to talking to adults (Turner, 2003; Webster-Stratton & Reid, 2003). A puppet can even be a good friend of the children (see Gobec, 2012; Korosec, 2012). In Dunst (2012, 2014) studies using puppets within the primary school context resulted in promoting acceptance of children with disabilities. As Dunst (2012) comments: "What is perhaps most encouraging is the fact that such

a simple intervention had discernible positive effect, and that the intervention could be delivered to a larger number of students on a single occasion" (p.455). Likewise, the Eating Disorders Awareness and Prevention (EDAP) puppet program has been found to be very effective in promoting acceptance of diverse body shapes and a healthy self-concept (Irving, 2000). Accordingly, Webster-Stratton and Reid (2003) provide a review of two randomized trials of a program called "Dina Dinosaur Treatment Program", which aimed at strengthening social and emotional competence in young children (4 - 8 years old) who were identified to be at risk for anti-social behavioural problems. Emphasis is given in training children in skills such as emotional literacy, empathy or perspective taking, friendship and communication skills, anger management, interpersonal problem solving, school rules, and how to be successful at school (Webster-Stratton & and Reid, 2003). The program incorporates child-sized puppets and videotape modelling to promote its goals and engage the children. Results show that puppets not only help children to develop empathy and perspective taking, or change their anti-social behaviours, but they also help them change some of their attributions about events and these results appear to last in time (at least 6 months after the intervention took place). Overall, the puppets are evaluated as an integral part of the program's success because they evoke children's imagination, young children are fascinated with the puppets and will easily trust them. "The puppets quickly become real to the children and are very effective models" (Webster-Stratton & and Reid, 2003, p.136). Respective reports of how easily children begin to empathize with puppets and treat them as real human beings are provided by many researchers or practitioners (Keogh et al., 2008; Salmon & Sainato, 2005); "The children empathised with the puppet. They understood the problem that the puppet had, and they felt sorry for the puppet, because it had the

problem" (Keogh et al., 2008, p.146). To, Le, Dao, Magnussen & Le (2010) in their study argue that the children accepted the puppets, as if they were alive, and had discussions with them through question-and-answer. Ahlcrona (2012) discusses how, in her study, children expressed their thoughts regarding the puppets; "how (they) imagined that the puppet thought, felt, knew, understood, learned, and had ideas and skills" (p.181), and all these processing is an indicator, according to the researcher, of children's interest in the mental processes and abstract thinking of other people, i.e. empathy and perspective taking. To et al. (2010) compared using puppets to storytelling among kindergarten children and found that only puppets had significantly changed children's behavioural problems and these results are consistent to Rahil and Teglasi (2003) who showed that using stories only changed children's cognitive abilities, but no changes were observed in their behaviour. These results are attributed to the possibility that children may identify more easily with the child-sized puppets, compared to listening to inducive didactic narratives to behave themselves (To et al., 2010). In line with this conclusion, Remer & Tzuriel (2015) argue that the "strength" of the puppets lays in their ability to move and speak, i.e. "human abilities which elicit identification by people who can see themselves or part of themselves in the puppets" (p. 356).

As highlighted in Kroger & Nupponen's 2019 review, despite the content-specific merits from using puppets, there are also other, more general, benefits. The most important in relation to in-classroom practices and related interventions has to do with that puppets seem to elicit children's interest and positive attitudes towards engagement (Gronna, Serna, Kennedy, & Prater, 1999; Turner, 2003; Webster-Stratton & Reid, 2003). As argued by Salmon and Sainato (2005) a number of authors highlight the core role of children's engagement in tasks, as the most

important feature of intervention. In other words, children who are not inclined to engage, may not benefit from an intervention, no matter how well designed this is. This conclusion corresponds to the role of play for children's mental development as theorized by Vygotsky (1966/2016). According to Vygotsky's view, play is the leading line of development in the preschool years, which is impacted by the age stage of the children and the relevant change in their motives and incentives to act, meaning that a child satisfies certain needs and incentives in play which differ from one age level to the other. If we are to understand the real nature of play, Vygotsky argues, we must first understand the motivations behind children's engagement. Likewise, to understand when and how children interact with puppets, it is essential to understand their motives to do so.

The research work to be presented in the following sections builds on the evidence presented above as drawn from years of research on different forms of contact and the associated mediating factors to investigate attitudes and opinions towards refugee in two different types of primary schools in Athens, as a way to reveal the impact of the school culture on children's representations and attitudes (study 1). The ultimate scope of study 1 is to produce a group invariant comprehensive SEM model (please see figure 1) that will be summarizing the most prevalent findings that years of research have revealed with regards to the well documented effect of positive intergroup contact and prejudice reduction (either measured as attitudes, beliefs, contact intentions or actual behaviours). In addition, the present thesis investigates the impact of a new form of contact that combines features of both the direct and the indirect forms of contact. In specific, through a curriculum-based intervention, the study investigates the

longitudinal impact of contact with a puppet (study 2), while emphasis is given on the possible mediating role of empathy, inclusion of the other in the self and of threats.

Even though there are far more technologically advanced methods to create intergroup contact conditions, like for example through virtual reality scenarios and simulations (which nevertheless suffer from external validity) or through the recently innovative technique of a human cyranoid by Corti & Gilespie (2014) where a different human being serves as an agent of the words of another source through the shadowing technique, yet these are not considered to be easily implemented within the educational context, especially in the occasions of less privileged settings were technological advances have not vet been communicated in classrooms. Even so, such ingenious techniques help unfold the underlying mechanisms that interfere in every social interaction and help researchers to isolate and identify what needs to be further investigated; in this sense, they guide future research. Corti and Gilespie (2014) step on people's well documented tendency to "implicitly perceive unity between outer appearance and inner disposition" (p. 5) which inevitably leads to stereotypical depiction of an outgroup. As they argue the self-fulfilling nature of stereotypes lead to perceivers biased expectations regarding a target's appearance, which in turn result in stereotype confirming behaviors on behalf of that target, as well as jointly influence behavioral confirmation by perceivers, i.e. a vicious cycle of stereotypes.

What they have tried to do through the cyranoid technique was to explore the relationship between person perception and outer vs. inner identity, using a variety of manipulations. This discrepancy, they argue, which is analogous to the frequent tension between private and public

expression of attitudes, as discussed by Moscovici (1976), may be revealed by the cyranoid technique, since it offers the researchers the opportunity to achieve levels of mundane realism, which cannot be achieved through traditional stimuli like "paper people" or puppets for that matter. However, Vygotsky's view of the role of play in children's development and the associating role of imagination within play, makes it clear that children do not pursue realism, this is not what they are after, rather through play and imagination they explore the many perspectives the world has to offer and adjust the world to their respective needs (motives and wills). In this sense, the puppet "technique" may prove more influential, even compared to the cyranoid, when it comes to children research participants.

It is hypothesized (based on Vygotsky's ideas about the role of play) that the motivation that underlines children's engagement with a puppet (holding the identity of a refugee child) in the middle childhood years has to do with children's need to meet a member of an unknown outgroup, for whom they may have heard in their surrounding context, but nonetheless they didn't have the chance to encounter with. Through imagination children are given the chance to interact with a puppet that otherwise they wouldn't be able to interact with, not only due to difficulties in communication, but also as a result of potential negative ingroup norms or family norms. Vygotsky argues that "child's activity in an imaginary situation liberates him from situational constrains" (p. 10), thus liberates the child from group norm prohibitions or adults' behavioral or attitudes expectations, as in an imaginary situation, it promotes "the creation of voluntary intentions and the formation of real-life plans and volitional motives" (p. 18). It is argued in the present thesis that such imaginary encounters can potentially prepare the child for future real-life encounters with the outgroup under study. Vygotsky continues to say that

"imagination represents a specifically human form of conscious activity" (Vygotsky, 1966/2016, p. 7), therefore everything that happens in intergroup encounters through imagination, along with any occurring benefits, is also eligible to bring about meaningful conscious interactions, that may accordingly lead to the transformation of social representations for the outgroup. Another potential of such "interaction" with the puppet might be that of children impersonating the puppet, a possibility that goes beyond the imagination of a single subjectivity, and thus forms socio-cognitive conflict (Doise & Mugny, 1984) which is the source of change in representations.

Based on the preceding literature review the specific hypotheses set in the present thesis are being addressed in the forthcoming chapter which presents the general methodology of this research work.

CHAPTER 2: GENERAL METHODOLOGY

This chapter presents the general research methodology which is based on the underlying analytical strategy of the two studies of the dissertation. At first the preceding pilot study which aimed at revealing the prevalence of feelings of threats among primary school children is presented, followed by the factor analysis conducted on each instrument used in the following studies. A detailed description of the instrumentation is then presented. Finally, the general hypotheses of the dissertation are stated.

Developing a scale to measure children's perceptions of intergroup threats

The Pilot Study

Prior to the delivery of the two main research parts (a cross sectional and an intervention part), a pilot study was conducted which aimed at developing a measure that would capture children's feelings of threats coming from the perspective of having refugee children attending their school. If primary school children perceive intergroup threats, do these threats correspond to threats proposed by the well-established Integrated Threat Theory (proposed by Stephan and Stephan in 2001) which had so far only been tested among adult populations using measures that adhere to adults' fears? Seeking to reveal whether children also share considerations that resemble adults' feelings of realistic and symbolic threats was set as the prior objective of the pilot study.

Assessing children's potential intergroup fears was investigated based on an open-ended question; "Supposing that the incoming Syrian refugee will eventually stay in Greece, please fill in the following table to indicate a) any good things that you think would emerge because of

their stay, b) any bad things that you think would emerge because of their stay. If you think that nothing different would happen, please indicate that". The ultimate purpose was to come up with a new measure that would adhere to young children's developmental stage and would provide an insight in the way they perceive intergroup relations, that is to say a measure of children's intergroup fears.

Method

Sample

The pilot study involved 69 children; 32 attending the 2nd grade and 37 attending the 5th grade, as these age groups correspond to Nesdale's (2004) Social Development Identity Theory concerning ingroup norms adherence (children may show outgroup prejudice and to adhere to ingroup negative outgroup norms beyond the age of 7). In accordance, Killen and Rutland's (2011) argue that younger children adhere to moral reasoning when deciding who to exclude, while older children tend to base their reasoning on social conventional reasons (e.g. ingroup norms). All children were drawn from an ethnically heterogeneous primary school situated in the city centre of Athens. For 37 children, i.e. the 53.6 % of the total sample, both parents were Greeks, for 22 children, i.e. 31.9% of the total sample, none of the parents were Greeks and for 10 children, i.e. the 14.5% of the total sample, one of the parents was Greek and the other was of a non-Greek background. By the time the pilot study took place, no refugee children (Syrian or from any other ethnicity) attended the specific school.

Findings

Assessing children's answers was based on thematic analysis and then on frequencies analysis, i.e. a descriptive quantification of qualitative statements was conducted and the most

prevalent statements were retained. Table 1 shows the relevant statements and their occurrence. Findings were indicative of the existence of intergroup fears amongst children of that age (7-year olds and 10-year olds). However, important deviations from what the Integrated Threat Theory proposes regarding adult populations were discovered. For once, it became obvious that children of these ages do not seem to be preoccupied with symbolic types of intergroup threats, since only two children reported feeling such a threat. Instead, children exhibited mostly feelings of realistic threats that derive from the potential co-existence with refugee children and their families. Frequencies analysis were followed by a chi-squared test to test whether there was a statistically significant frequencies difference between the two age groups. In specific, the pilot study revealed age differences concerning the type of threats displayed, with younger children showing exclusively realistic threats cues. Older children's responses, on the other hand, revealed less realistic threats and also concerns about the refugee welfare (see table 1 for children's responses). Interestingly, there were only two children (girls) that showed symbolic threats cues, probably indicating that symbolic threats are the result of developmentally advanced thinking and that it probably begins around the age of 10. In addition, even though 2nd grade students expressed realistic threats at a much higher percentage, the content of these threats was more naïve, compared to older children, e.g. the most prevailing fear expressed by the 2nd grade students (65.6%) was that there will be a war in Greece as a result of the refugee arrivals. In contrast, older children expressed more "sophisticated" types of fears, e.g. that there will be an increase of poverty or that there will be an increase of criminality.

Table 1

Pilot study – Children's Responses by Grade concerning a) any good things they think would emerge because of refugee children's stay in Greece, b) any bad things that they think would emerge because of their stay

Realistic Threats	2 nd Grade	5 th Grade
"There will be a war in Greece."	21	- / /
"They will kill / harm us."	7	
"We are afraid of the jihadist fighters."	3	
"They will throw garbage in the streets of Athens / in schools."	13	
"They are not clean."		2
"They will take our jobs."	1	6
"There is no more space in Greece."	1	4
"They will take advantage of us."	2	
"There will be an increase of population and of poverty."		3
"Food will be reduced."		3
Criminality / "They will cause troubles."		2
"There will be a tourism reduction."		1
"Greek population will be further reduced"		4
Symbolic Threats		
*Racism/Discrimination incidences will increase in the Greek society		2
Concerns for the Refugee's Welfare		
"These people need food / money."		4
"They need to be saved."		1
"They need a safe place to live happy lives. / they need to have friends"		4

*This statement was put in such a way that was not easy to be classified as a symbolic threat or as a concern for the refugee's welfare.

As already mentioned above, only older children's responses revealed various concerns regarding the refugee children's welfare, e.g. *these people need food / money, or they need to have friends*. Table 1a shows the percentage of each type of threats expressed by children based on *Grade*.

Table 1a

Type of Threat by Age	2nd Grade %	5 th Grade %
Realistic	89.7	52.9
Symbolic	-	5.9
None	10.3	17.6
Irrelevant	-	2.9
Concern for refugees' welfare	-	20.6

A significant effect of age on type of threats, $X^2(4) = 12.134$, p=016.

However, the expression of such concerns along with the fact that older children showed less realistic threats concerns may be attributed to the social desirability phenomenon. That is to say that older children may have appeared hesitant in openly admitting their fears concerning the Syrian refugee outgroup and instead may have chosen to emphasize their concerns for the refugee according to what 'political correctness' would suggest. Rutland (2004) argues that research evidence shows children start very early in life to self-regulate their behaviours and opinions according to what they conceive as acceptable from their surrounding context, even though they may do so at an unconscious and inconsistent manner. Rutland (2004) illustrates the discrepancy between opinions and attitudes expressed in explicit compared to implicit measures of prejudice in a number of relevant studies (Jahoda, Thomson & Bhatt, 1972; Banerjee & Yuill, 1999a, 1999b; Bennett & Yeeles, 1990). That is to say that children showed more positive attitudes towards the outgroup when these were assessed through explicit measures of prejudice, whereas when implicit measures were used, significantly more negative outgroup attitudes were

reported. However, Rutland (2004) also discusses the important role of age and domain in expressing outgroup attitudes:

"The degree to which they [children] demonstrate explicit prejudice towards these categories [ethnic and national groups] may well be moderated by their ability to critically evaluate the legitimacy and acceptability of these implicit associations [associations of particular labels with certain types of social categories]" (Rutland, 2004, p.252).

Accordingly, Brown (1995) comments that older children are more sensitive to norms of adult society, thereby they become more aware of what is considered as socially acceptable and what is not. For example, ethnic prejudice is considered more unreasonable, thus not socially acceptable, compared to national prejudice which appears to be justified as a "tolerable form of expression among the majority" (Rutland, 2004, p.253). Overall, results from studies with children using explicit and implicit measures of prejudice have shown that school-age children, by approximately 8 years of age, are capable of understanding self-presentational motives and monitor their behaviour accordingly (Rutland, 2004) and as they mature they master this ability so as to proxy adults' self-regulation strategies towards socially desirable responses.

Another possible explanation for older children's concerns maybe the fact that they are cognitively more capable of being in someone else's shoes, i.e. being more likely to express perspective taking considerations, as Theory of Mind would suggest. Finally, another possible explanation to consider is what Batson and Ahmad (2009) refer to as *Empathic Concern which* involves feeling for another person who is in need. Empathic Concern has been claimed to produce altruistic motivation to have the empathy-inducing need removed (Batson, 1987, 1991).

However, Batson's and colleagues work on empathy and prejudice reduction regards university students' populations, and thereby their findings may not apply to young elementary school students.

The objective of developing a new scale was based on children's above responses on the open-ended questions. As illustrated above, a number of concerns were also expressed and therefore were included in the newly developed scales, since many of the 5th grade children comprised such thoughts when asked what they think would happen if the refugees stay. Children's responses, which are presented below (table 2), show the final 12 items that were included in the newly developed measure. These regard feelings of realistic threats and concerns regarding the refugees' welfare. Items 11 and 12 reveal a construct that resembles Group–Esteem Threat. Group–Esteem Threat measures the amount of perceived threat to the group esteem coming from the outgroup or how good individuals feel about their group and how these positive feelings about their group are undermined by members of another group. These items emerged from another question in the pilot study (*"Please write down 3 questions that you want to address to Syrian children"*).

Table 2

developed measure	
Item no	Statements
1	Refugees need help from the Greek state.
2	Refugees need medicines from the Greek state.
3	Greece can help the refugees.
4	There are a lot of jobs in Greece for everyone.

The 12 items retained out of children's responses in the pilot study and included in the newly developed measure

5	Refugees will throw trash in the city.
6	There will not be enough space for everyone to live in Greece.
7	Greater poverty will increase in Greece.
8	Greek citizens will start to abandon the country.
9	Refugees need help: food and money.
10	Refugees need friends.
11	Refugees love Greece.
12	Refugee children will like our schools.

Conclusively, some of the final 12 items seamed to measure children's perceptions and fears that resemble only the realistic types of threats described by the Integrated Threat Theory, while some other measure children's concerns for the refugee's welfare and two (items 11 & 12) were related to *Group-Esteem Threat*. Symbolic Threats did not occur as prevalent fears amongst 10-year-old (or younger) children. As stated above, these statements were chosen based on their high prevalence amongst children's responses, as well as on their relevance to the goal of the pilot study which was to reveal children's perceptions of intergroup threats and on relevant literature concerning threats measures in adult populations. In specific, relevant literature guided the categorization into symbolic threats, realistic threats and empathic concerns. A similar technique was used by Fliess-Douer, van der Woude, & Vanlandewijck (2011) who, based on the literature, and expert's and wheelchair user's comments, they developed a new Self-Efficacy in Wheeled Mobility Scale. Accordingly, responses that revealed an idiosyncratic way of thinking, i.e. judgements and evaluations of the situation which reflect information that had been

unexpectedly acquired (Piaget & Weil, 1951) were omitted from the final scales (e.g. there will be a war in Greece). These were considered age-related fears and since the scale was designed to ultimately address older children, i.e. 3rd graders and over, were disregarded. The younger age group that participated in the pilot study were as young as 2nd grade children (7 to 8-year olds), and many of them faced difficulties in understanding and completing the tasks. In specific, fears (threats) illustrated by the 2nd grade children were mostly idiosyncratic, as mentioned earlier and out of the surrounding context shaped by the societal channels in Greece. The most prevalent fear regarded the "high" possibility that the Syrian refugees will cause a war in Greece. For that reason, the present research addressed older children (3rd grade and above). The 5th grade children, instead, reported fears that are closer to reality, not necessarily regarding the specific refugee population, but rather general fears that concern any increase of the local population. In addition, older children reported concerns for the refugees' welfare.

Study 1 - Instrumentation & Factor Analysis - The Children's Perceived Realistic Threats scale (CPRT), the Children's Recognition for Need Scale and the Group Esteem Index in Study 1

The items that emerged were based on the responses of the pilot study described in the previous section (see tables 12). After having decided on the items to be used in study 1, it seemed more appropriate to explore whether the items formed a unidimensional scale or whether a different structure was more suitable, based on the fact that the 12 items adhere to, at least, two distinct constructs, i.e. realistic threats and concerns about the refugees' welfare and one possible third construct; the Group-Esteem Threat. Therefore, the 12 items were factor analysed with oblique rotation in order to reveal any emerging sub-categories / sub-themes and to offer a more

informative and detailed depiction regarding children's feelings of threats. Factor Analysis resulted in four distinct constructs, since there were four factors with eigenvalues >1 (see table 3). In addition to the eigenvalues >1 condition, a second criterion used was the scree test of eigenvalues plotted against factors, which produced the same results. Two of the constructs adhere to *Realistic Threats (scale items 5, 6, 7, & 8)* with Cronbach's a=.58 and the *Recognition for Need (scale items 1, 2, 9 &10)* with Cronbach's a=.66. Scale items 11 & 12 (which were both reverse coded) clustered together and were considered as a third construct; the *Group Esteem Threat* and finally scale items 3 & 4 clustered together. Items 3 & 4 seem to adhere to what can be called as *the country's capacity to provide help to the refugee (Factor 4)*. Since this construct was not considered to overlap with the present studies' purposes, items 3 & 4 were excluded from further analysis.

Table 3

Item	Factor 1-	Factor 2 -	Factor 3	Factor 4
	Recognition	Realistic	Group	
	for Need	Threat	Esteem	
			Threat	
Refugees need help from the Greek state.	.76	.11	04	10
Refugees need medicines from the Greek state.	.74	.07	.10	13
Refugees need help: food and money.	.62	10	10	.30
Refugees need friends.	.59	08	15	.22
Refugees will throw trash in the city.	.11	.66	18	18
There will not be enough space for everyone to live in Greece.	60	.57	.16	.30

Summary of Exploratory Factor Analysis Results for the 12-items on Threats in Study 1

Greater poverty will increase in Greece.	15	.62	02	.26
Greek citizens will start to abandon the country.	.05	.74	04	12
Greece can help the refugees	.25	.03	.06	.71
There are a lot of jobs in Greece for everyone.	13	.09	21	.64
Refugees love Greece.	.03	.00	74	.19
Refugee children will like our schools.	.04	.07	85	.12
Eigenvalue	2.93	1.57	1.13	1.05
% of Variance	24.44	13.08	9.44	8.77
Α	.66	.58	.56(r=.39)	.43

Therefore, it was decided upon factor analysis to extract two distinct scales, namely *the Recognition for Need Scale* and *the Realistic Threat Scale* and also to treat items 11 & 12 (r=.39, p < 01) as addressing the Group-Esteem Threat construct (from now on referred to as the Group Esteem Threat Scale or Index). The two scales are presented below in tables 4 and 5 respectively. The fact, however, that both newly developed scales have low Cronbach's alpha values, is one drawback that will be revisited in the forthcoming discussion. Items on the Group-Esteem Threat Index were reversed scored in the analyses to follow, so as higher scores to indicate higher threats and lower scores to indicate lower threats. Accordingly scoring of the items on the Realistic Threat Scale did not change.

Table 4

The newly developed Children's Recognition for Need Scale (CRN) in Study 1

Item no	Item	
1	Refugees need help from the Greek state.	
2	Refugees need medicines from the Greek state.	
9	Refugees need help: food and money.	
10	Refugees need friends.	

Table 5.

The newly developed Children's Realistic Threat Scale (CPRT) in Study 1

Item no	Item
5	Refugees will throw trash in the city.
6	There will not be enough space for everyone to live in Greece.
7	Greater poverty will increase in Greece.
8	Greek citizens will start to abandon the country.

Validity & Reliability of the CPRT & the CRN Scales

Validity is the extent to which an instrument measures what it was designed to measure, and reliability is the extent to which an instrument can be expected to give the same measured outcome when measurements are repeated (Taber, 2013).

Regarding the discussion on the validity of the CPRT scale, first it should be highlighted that the scale emerged out of the need to cover the absence of a measurement tool that addresses

elementary school children's perceptions of intergroup fears (from the third up to the fifth grade). In other words, the development of this scale was conceived based on the fact that the Intergroup Threat Theory, from what we know, has not yet been verified amongst young children, that is to say that even though research has investigated the impact of outgroup threats on children's intergroup attitudes (e.g. Nesdale, Durkin et al., 2005; Nesdale, Maass et al., 2005; Durkin, Nesdale et al., 2011), still this has only, to our best knowledge, be done by means of identifying children's response to a potential outgroup threat. In other words, the scenario of what the threat was, was provided by the researcher. However, the exact content of intergroup threats in children's minds was not assessed. Should one suppose that what regards adult populations and is referred to as *intergroup threats*, or the classification of threats to realistic or symbolic types also applies to young children? The absence of instruments (e.g. self-report measures) that adhere to the developmental stage of primary school children leads to a blur picture of what types of threats may preoccupy children's minds.

Hence, answering whether the CPRT scale measures what is supposed to measure is kind of obsolete, exactly because there are no previous findings to rely upon and the same argument stands for the validity of the CRN scale. The CPRT scale measures what the pilot study revealed (via a research of an exploratory nature) regarding potential feelings of intergroup threats and this discovery points out to realistic type of threats. Likewise, the CRN scale measures children's concerns about the refugee's welfare. Both scales have not yet gone through any standardization procedures and they were used in study 1 here without being pilot tested with another sample of children. The pilot study described in the previously aimed at revealing the most prevalent fears

and perceptions about the refugee, only to offer a baseline to build a scale that measures threats addressing 3rd to 5tth grade children.

Likewise, when the target group is young children, another possible downside may be attributed to children's inadequate reading skills. As Taber (2013) discusses 'when an instrument does not give reliable readings, it may be difficult to distinguish genuine changes in what we are seeking to measure from changes in readings that are an artefact of the unreliability of the instrument' (p.2174). In young children's case the odds for un-reliable readings, due to children's insufficient reading skills, may prove dramatically relevant.

What is usually the case, is to rely upon the Cronbach's alpha value to decide whether a scale is satisfactorily reliable. The most prevalent view is that acceptable Cronbach's alpha values should stand somewhere above the .70 'threshold', while higher values are usually better viewed. As illustrated in table 4 above, Cronbach's alpha values concerning the two scales discussed here fall below the .70 'threshold'. However, a growing discussion around the importance and the extensive use of Cronbach's alpha shows that, things are not so simple, when deciding on the acceptability of alpha's value for a scale and that there are a number of related issues to take into account. In specific, illustrative examples from the science education literature demonstrate that alpha may be acceptable even when there are recognised problems with the scales concerned (Taber, 2013). It seems then that there is no absolute rule to ensure that an alpha's value reflects 'acceptable' reliability. Accordingly, Schmitt (1996) suggests that there is no such level such as 0.70 for instance, where alpha becomes 'acceptable', but rather those instruments with quite a low value of alpha can still prove useful in some circumstances. Kline (1999) also notes that "when dealing with psychological constructs, values even below .70 can,

realistically, be expected because of the diversity of the construct being measured" (in Field, 2013, p.709). In line with this view Sijtsma (2009) argues that all that alpha does is to reveal the average degree of interrelatedness of the items included in a scale, *'provided there are no negative covariances and keeping in mind that alpha also depends on the number of items in the test*' (p.114). Field (2013) also discusses the fact that as the number of items on a scale increases, alpha increases, too.

Alpha is also sometimes inappropriately used to claim an instrument is unidimensional, whereas Factor Analysis should be better incorporated in order to decide about a scale's structure. In such cases were multi-dimensionality is more possible, alpha should only be used alongside Factor Analysis results (Field, 2013; Taber, 2016). Therefore, when developing an instrument that seems more likely to be multidimensional it is better to conduct Factor Analysis first to distinguish the constructs involved and then to report cross-scale results, since the Cronbach alpha statistic is most meaningful and valuable in relation to single-construct scales (Adams & Wieman, 2010; Field, 2013). Reporting each sub-scale's alpha is more appropriate and more informative then, since it offers a depiction regarding the correlations of the items within that subscale which regards a single construct and that is the reason why in this study (study 1) exploratory factor analysis on the 12 items preceded assessment of the reliability of the scales used.

Despite the growing discussion around the questioning of the usefulness of Cronbach's alpha, a recent paper by Raykov and Marcoulides (2019) takes a stand in favour of examining the circumstances under which Cronbach's alpha should be used, rather than abandoning its use for ever. The researchers argue that Cronbach's alpha should ideally be used in one-factor scale

cases, where factor loadings are similarly high, and the errors are uncorrelated. According to Tabachnick and Fidell (2007) factor loadings can be classified as poor (0.32), fair (0.45), good 0.55, very good (0.63) or excellent (0.71). In the case of the CPRT scale and of the CRN scale factor loadings are then classified as fair, good and very good (see table 4 above). However, in order to respond to the critique presented earlier, McDonald's omega is also reported for the 4item Children's Perceived *Realistic Threat* scale ($\omega = .578$) as well as for the 4-item *Children's Recognition for Need* scale ($\omega = .657$), as this measure of reliability is considered an optimal measure compared to alpha. McDonald's omega (ω) is a more general form of alpha, that considers the strength of association between items and constructs as well as item-specific measurement errors, thus, providing more realistic estimates of the true reliability of a scale. Even so, findings regarding these two scales should be read with caution and in conjunction with the findings from other scales with better psychometric properties, since values on both reliability measures, i.e. alpha and omega (which are very similar) are not very high.

In addition, and for all the reasons discussed above, results concerning the CPRT scale and the CRN scale, as well as other scales that address more than one constructs and were used in study 1 (N=660) were first factor analysed, via exploratory factor analysis, to explore their structure. Accordingly, cross-scale results of reliability are reported in this section (table 10). In addition to that, all scales reported below (with the exception only of the newly developed scales) were carefully translated in Greek and then back translated in English by two native Greek speaking English teachers, while a group of four elementary school teachers went through the final questionnaires and made their remarks concerning two critical dimensions; namely

comprehensibility of the instructions and comprehensibility of the items on the questionnaires (the questionnaire can be found in Appendix A).

Quantity of Contact

Quantity of contact was assessed by asking participants if they have any contact with Syrian refugees and if yes, how frequently they have contact with them using a 7-point scale ranging from 1 (never) to 7 (daily).

Children's Multicultural Attitudes

This scale derived from the pilot study and was designed for the purposes of the present research to acquire a better knowledge regarding children's multicultural attitudes. Specifically, the 5 items (an item was removed, so as for the scale to become unidimensional) included in this scale aimed at revealing children's multicultural attitudes under the perspective of having Syrian refugee children attending their school in the year to come. Children in the aforementioned pilot study were asked to write down their thoughts regarding the possibility that Syrian refugee children would attend schools in Greece in the next year. The question was then; "What do you think would happen in schools, would the schools change somehow, and if yes, please specify in which ways." Based on children's responses the researcher designed a scale that addresses the most prevalent perceptions expressed by children in the pilot study, which were found to reflect multicultural attitudes. Items included in this scale are: "All children can be friends", "Christians can be friends with Muslims", "Schools in Greece will become better", "There will be a lot of fights within schools in Greece" (reverse scored item), "All children will become easy-going», «School events will be better, because children from different countries will participate".

After the scale was factor analysed an item ("Christians can be friends with Muslims") was dropped from the scale, so as for the scale to become unidimensional. The specific item regards a more general population, i.e. that of Muslim people, as opposed to Christian people. It does not refer to children in specific, rather it is most likely to be conceived as an item that refers to adults, hence it is conceptually distinct, as it does not refer to the school context. Moreover, the specific item might not be so relevant since Syrian people are both Muslim and Christian refugees. After removing this item, results coming from the remained 5 items suggested a univariate structure (based on the eigenvalue criterion as well as on the scree plot) with a Cronbach's alpha value of .70 and McDonald ω =.72 (in study 1, N=660). In table 6 results coming from exploratory factor analysis which regard factor loadings are presented.

Table 6

Item	Factor Loadings
All children can be friends	.62
Schools in Greece will become better	.75
There will be a lot of fights within schools in Greece (reversed)	.61
All children will become easy-going	.72
School events will be better, because children from different countries will participate.	.69
Eigenvalue	2.57
% of Variance	31.75
Alpha	.71

Factor Analysis – A Univariate solution: Loadings of all items on Children's Multicultural Attitudes Scale

Extraction Method: Maximum Likelihood. Rotation Method: Oblimin with Kaiser Normalization. a. Rotation converged in 11 iterations.

Validity & Reliability of the Perceptions of the Children's Multicultural Attitudes Index

As in the case of the newly developed CPRT and CRN scales, the validity and the reliability of the Children's Multicultural Attitudes Index cannot be directly assessed. Therefore, only factor loadings are being reported to provide an inside regarding the reliability of the scale (see table 16).

Attitudes towards the Refugee (from Turner & Brown, 2008)

Attitudes toward refugees were measured by combining the mean score on four items adopted from Turner & Brown in 2008, who originally used 6 items with a Cronbach's alpha value of .89. Reches & Feddes (2019) also used the 6-item scale in their study and found a Cronbach's alpha of .75, while Vassilopoulos et al. (2020) in their study in Greece with primary school children found a pre-assessment alpha of .77 and a post-assessment alpha of .71 (using the 6-item version). The reason for not using the two items ("*I am the same as refugees*" and "*Refugees like to do the same things I like to do*") in the present study is that, in our opinion, these two items regard symbolic threats, rather than attitudes towards the refugee. However, symbolic threats were not revealed in the preceding pilot study described earlier, hence it was decided not to include them nor as attitudes items neither as symbolic threats measures. In addition, the items were also excluded for technical reasons; the first draft of the research questionnaire was considered to be very long and time consuming by the Greek authorities who provide the relevant permission to enter the schools for research purposes. The researcher was asked to limit the length of the questionnaire and since there were other outcome measures like

the *IOS* and the *Children's Multicultural Attitudes scale* these two items were eventually excluded from the final questionnaire.

As in Turner & Brown's work responses to these items were coded so that a score of 1 depicts the most negative attitude and a score of 5 depicts the most positive attitude. In this study (Part A) Cronbach's alpha had a value of .81. A factor analysis was also conducted and revealed the unidimensional nature of this set of items (table 7).

Table 7.

Scule	
Item	Factor Loadings
I like refugees	.70
Refugees are very nice.	.53
I like to have refugees in my class.	.84
I like to play with refugees in the school yard.	.81
Eigenvalue	2.56
% of Variance	53.23
Alpha	.81

Summary of Exploratory Factor Analysis Results for the Adopted Attitudes towards the Refugees Scale

Extraction Method: Maximum Likelihood. 1 factor extracted. 4 iterations required.

Feeling Thermometer

A Feeling Thermometer rated on a scale from 1 to 30 was used for the children to indicate how "warm" or how "cold" they feel about two distinct groups of children, namely the group of the incoming Syrian refugee children and the group of children who have the Greek citizenship and

were born or have been leaving in Greece for a long time. Children were explained that a value of 15 means that they feel neither warm nor cold for the relevant group; it is a neutral situation. However, if they wanted to indicate their "cold" feelings towards a group then the less value they chose the more negative they felt. Accordingly, if they wanted to indicate their "warm" feelings toward a group then the higher value they chose the more positive they felt. They were also explained that their feelings about the two groups of children would not necessarily have to be contradictory.

The Comprehensive School Climate Inventory (CSIC)

School culture concerning social aspects of the school life was assessed through the Comprehensive School Climate Inventory (CSCI). The scale, which was designed by the National School Climate Center of the USA, provides feedback on how students, staff, and parents perceive their school's climate. It is intended for use as a needs-assessment and as a prepost measure of change over time. The CSCI has been used as a diagnostic tool in schools across multiple states in the USA. The CSCI is included in the U.S. Department of Education, Safe and Supportive Schools compendium of school-climate measures. There are different versions of the CSCI for elementary-school students, middle- and high-school students, and school personnel (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002). The CSCI is considered one of the strongest measurement tools regarding the school climate, as it has been found to have strong content validity, construct validity, internal consistency, and 2-week test–retest reliability (Rovaia, Wightinga, & Luckingb, 2004). In addition, the CSCI has been recognized as a scientifically sound assessment tool in four independent evaluations. In more recent evaluation

surveys, the CSCI was found to be one of the most reliable and valid instruments available (Guo, Choe, & Higging-D'Alessandro, 2011).

The third version of the CSCI student survey for elementary school includes 63 total items with five-point strength-of-agreement Likert-scale response options. The scale consists of 10 subscales; namely *Support for Learning* (12 items), *Social Support from adults* (6 items), *Social and Civic Learning* (6 items), *Adult Respect* (6 items), *Rules and Norms* (6 items), *Student – Student Relationships* (7 items), *Physical and Social Bullying* (8 items), *Physical Surroundings* (8 items), *Sense of Security* (5 items) and *School Connectedness* (3 items).

For the purposes of the present study (study 1) only some of the scales that regard social aspects of the school life were considered, i.e. *Social and Civic Learning (6 items with Cronbach's alpha=.79), Rules and Norms (6 items with Cronbach's alpha=.80), and finally Students - Student Relationships (7 items with Cronbach's alpha=.79).* In table 9 below correlations among the three subscales used in the present study are reported. As reported in the description of the scales the *Rules and Norms scale* includes items that address clearly communicated rules about physical violence, verbal abuse, harassment and teasing and make clear implications regarding consistent enforcement and norms for adult intervention. These rules are expressed in an abstract general form, meaning that they are not guided towards specific groups of children, say migrants or refugees (see table 8 below). The *Social and Civic Learning scale* addresses issues of teaching and learning support for the development of social and civic knowledge, skills and dispositions including: effective listening, conflict resolution, self-reflection, empathy, personal responsibility and ethical decision making. Finally, the *Student*-

Student Relations scale addresses mainly the issue of respect for diversity and how this is

illustrated in peer relations within the school context.

Table 8

Items included in the three CSCI subscales used in study 1

Rules & Norms	Social & Civic Learning	Student-Student Relationships
Teachers in the school are fair about making sure that all students follow the rules against physically hurting other people.	In my school, we talk about ways to help us control our emotions.	Students at my school will try to stop students from insulting or making fun of other students.
Teachers in the school will stop students if they see them physically hurting each other (for example pushing, slapping or punching).	In my school, we have learned ways to resolve disagreements so that everyone can be satisfied with the outcome.	Most students in my school try to treat other students the way they'd want to be treated.
In my school, there are clear rules against insults, teasing, harassment, and other verbal abuse.	In my school, we talk about the way our actions will affect others.	Students generally work well with each other even if they' re not in the same group of friends.
Teachers in the school are fair about making sure that all students follow the rules against insults, teasing, harassment, or other verbal abuse.	In my school, we discuss issues that help me think about how to be a good person.	Students try to make new students feel welcome in the school.
In my school, there are clear rules against physically hurting other people, (for example hitting, pushing, or tripping).	In my school, we discuss issues that help me think about wat is right and wrong.	Students in this school respect each other's differences (for example, gender, race, culture, etc.).
Teachers in the school stop students if they see them insulting, teasing, harassing, or otherwise verbally abusing other students.	In my school, we talk about the importance of understanding our feelings and the feelings of others.	Very few students insult or make fun of other students.
		Most students in my school act in a way that is sensitive to the feelings of other students.

Table 9

Correlations among the CSCI subscales in Study 1

nt-Student
lations

** Correlation is significant at the 0.01 level

Empathy towards Refugees

Two items adopted from Turner and Brown (2008) were used to assess empathy toward refugees. Turner and Brown in their 2008 study incorporated an elementary school-based intervention that aimed at increasing empathy toward refugee children. The two items used ("It must be scary for refugees when they arrive in a new country," and "We should be nice to refugees and help them settle in." were found to be significantly correlated r=.43 and r=.34 in two different times and with two elementary school age groups of students (Turner & Brown, 2008). The researchers had also measured attitudes toward English people (Time 1, a=.62; Time 2, a=.72) and attitudes toward French people (Time 1, a=.81, Time 2, a= .75) in order to determine discriminant validity of any change in attitudes toward refugees. Accordingly, Vassilopoulos et al. (2020) report the alpha coefficient for these two items (pre-assessment=.52 and post-assessment = .59). In this study (Part A, study 1) the two items regarding attitudes toward refugees were also similarly correlated as in Turner & Brown's (2008) study (r=.41).

Affective Empathy – The Empathetic Sadness Scale

De Wied et al. (2007) examined the internal structure of Bryant's Empathy Index, which was used as a unidimensional scale and discovered that it is indeed a two-factor scale. The first factor was labelled *Empathic Sadness* (de Wied et al. 2007) and the second factor was labelled *Attitude* "because all items seem to reflect (negative) attitudes toward emotional behaviour" (p. 101). According to de Weid et al. (2007) the Empathic Sadness scale seems to measure an essential part of affective empathy, that is, responsiveness to another person's sadness. In addition, De Weid et al's (2007) findings indicate that the scale includes items common to girls and boys of all ages and could, therefore, be used to examine sex differences and age trends in empathic sadness across childhood, adolescence, and young adulthood. Finally, sex differences were reported for that scale, with girls scoring higher than boys. Items of the two-dimensional scale are all worded so that agreement indicates high empathy (de Wied et al, 2007).

In the present study all items related to factor 1, referred to as the *Empathetic Sadness Scale* (called *Empathic Scale* in de Wied et al., 2007), were used. Cronbach's alpha for the Empathetic Sadness scale as used by de Weit et al. varied from .68 to .76 (7 items scale). The scale used for the purposes of this study differs from de Weid's et al *Empathic Sadness Scale* in that they used three items in a dyadic way, i.e. concerning a boy and then a girl, hence ending up with 6 items plus one single item. In the present study we converted the three dyadic items into single items (please see Appendix A for a comparison between the two scales). Factor analysis in the present study supported the 1-factor nature of the four items with a Cronbach's alpha value of .71.

Contact Behavioural Intentions

Three items adapted from Cameron and Rutland (2006) were used to assess intentions to engage with the refugee children. These were as follows: "Imagine that a refugee child, one that is of the same sex as you are, arrives to your class; Please indicate how much you would like to play with the new child, how much you would like the new child, and how much would you like to have the new child over for a meal and to play together". Cameron and Rutland had used this scale in a study where the outgroup were refugee children and the ingroup English children. Cronbach's alpha was found to be .89 for the scenario that regarded English children and .90 for the scenario that regarded refugee children. For the purposes of the present study (study 1) 4 more items were added in this scale, to achieve a broader depiction of the relationship children wished to have with the refugee child and because this construct, i.e. contact behavioral intentions was of paramount importance in this study. These items were to indicate how much "you would like to hang out with the new child during session time ", "You would like to hang out with the new child after school time", "You would like to meet the new child to your friends" and "You would like to sit with the new child and share the same table in classroom". The critical point that distinguishes this scale from the Multicultural Attitudes scale is that in the CBI scale the items require replies on a possible first person contact situation, rather toward a general outgroup. A composite measure of contact behavioral intentions was then computed; with higher scores reflecting stronger willingness to meet outgroup members. In this study the scale's structure was found to be unidimensional, with Cronbach's alpha=.92.

Inclusion of Other in the Self (IOS)

Social psychologist Arthur Aron and colleagues (1992) developed the single-item ¶ Inclusion of *Other in the Self (IOS)* scale to measure how close the respondent feels with another person or group. Aron et al. (1992) found this scale to have high levels of testretest and alternative form reliability, to correlate strongly with a variety of longer measures of closeness, and to predict relationship stability equally well or even better than these longer measures (Wright et al., 1997). Since then the use of the measure has expanded to address not only interpersonal relationships, but also relationships at the group level (both with the ingroup and the outgroup). IOS was first adapted and used in the realm of intergroup relations by Coats, Smith, Claypool, and Banner (2000). Additionally, it has been successfully used with primary school children in the past as an outcome variable, as well as a mediator (Cameron, Rutland, Brown & Douch, 2006; Turner, Hewstone, Voci & Vonofakou, 2008) together with other measures of potential mediators for intergroup contact (Wright et al., 1997; Gómez, Tropp & Fernández, 2011) and was found to have an impact on intergroup contact. Even though the measure cannot be subjected to reliability / validity statistical analyses, it is considered to be highly reliable and to have ecological validity since it correlates very well with a number of other relevant outcome measures and contracts like intergroup attitudes measures, ingroup norms and outgroup norms, intergroup anxiety measures and intergroup expectancies (Turner, Hewstone, Voci & Vonofakou, 2008; Gómez, Tropp & Fernández, 2011).

IOS is a graphical, nonverbal measure of the closeness of the self and the ingroup to the outgroup. Respondents see seven pairs of circles that range from no touching to almost completely overlapping. One circle in each pair is labeled "self," and the second circle is labeled "other." In the present study (study 1) children were asked to choose one of the seven pairs to answer the question: "*Which picture best describes the relationship you would like to have with a potential new classmate (of the same sex as you are), i.e. the refugee child?*" The refugee child was indicated by the words "Syrian refugee child". No overlap (1) indicates no IOS whereas the 7th circle almost complete overlap (7), indicates very high IOS, which was explained to the children as follows: "me and the refugee child are the same, we can become best friends".

Table 10

	CPRT	CRN	G-E Threat	Mul. Att.	Att.	CSCI1	CSCI2	CSCI3	Emp. Sad	Emp. Ref.	CBI
Alpha	.58	.66	r=.39	.71	.77	.70	.80	.79	.71	(r=.41)	.92
a grade5	.63	.71		.71							
a type1	.64	.70		.71							
alpha in previous studies	- <			-	.7189	.81*	.82*	.78*	.6876**	r=.34- .81	.8990***

Alpha coefficient for all scales used in study 1: present and previous values

CPRT=Children's Perceived Realistic Threats Scale

CRN= Children's Recognition for Need Scale

Perc. = Perceptions of Readiness for intergroup contact

Att. = Attitudes toward the Refugee - An adopted 4-item version of the six items used by Turner & Brown (2008)

*CSCI1=Comprehensive School Climate Inventory - Social & Civic Learning

*CSCI1=Comprehensive School Climate Inventory _ Rules & Norms

*CSCI1=Comprehensive School Climate Inventory _ Student-Student Relations (Guo, Choe, & Higgins---D'Alessandro ,2011).

**Emp. Sad. = Empathetic Sadness (by de Wied et al., 2007)

***CBI=Contact Behavioural Intentions (By Cameron and Rutland, 2006)

Data Screening & Missing Data

Statistical screening of the data on the univariate and multivariate levels as proposed by a number of researchers (Kline, 1998; Tabachnick & Fidell, 2000) was first conducted in order to check for normality, homoscedasticity, linearity, multicollinearity, relative variances and outliers. In addition, the screening analysis comprised of the descriptive statistics for all the variables and frequencies analysis was also conducted to ascertain valid percent for responses from the participants to all the questions in the research and corrections were made if incorrect entries were found. Finally, special care was attributed in the way missing data were treated.

After data entry and during preliminary analyses, the issue of the treatment of missing data emerges. The issue of missing data is very important, because when it occurs, and it usually does, it may spoil the structure of the data matrix, thereby leading to inaccurate results and/or biased statistical estimates. Thus, missing (or lacking) values reduce the quality of the data and may risk the reliability of statistical analyses (Soysal, Karaman & Dogan, 2018). Estimation bias increases as the proportion of missing data in the total data increases (Bakis & Goncu, 2015; Cool, 2000). Likewise, when there are fewer missing values, estimation bias decreases sometimes in such a degree that the effects on statistical estimations become negligible. However, since there is always the fear that the way missing data behaves in terms of distribution becomes considerably influential in statistical estimations (Enders, 2010; Schafer & Graham, 2002; Zhu, 2014), it is of great importance to always deal with it in the most appropriate manner.

An important aspect is clarifying the reasons data is missing, because this will guide the researcher as to which method to use to process missing data. The researcher has to decide

whether it is missing completely at random (MCAR), whether it is missing at random, (MAR), the terms are attributed to Rubin (1976) - or whether it constitutes specific patterns, meaning that it is not missing at random (NMAR) in which case these patterns need to be un-puzzled. Specifically, if the reason the data is missing is independent of the relevant variable or any other variable in the dataset, then it is classified as MCAR. As Rubin argues (1976) MCAR refers to data where the complete cases are a random sample of the originally identified set of cases. If the reason the data is missing is independent of the relevant variable, but could be related to another variable in the database, then data is MAR. With MCAR or MAR data, the response mechanism is termed ignorable. With ignorable data, response mechanisms become a lot easier and the model-based methods used for missing data analysis are simplified, because a researcher can ignore the reasons that missing data occur (Pigott, 2001). As a rule of thumb, if less than 5% of the observations are missing and missing data is classified as MCAR, the missing data can even be simply deleted without any significant consequences. Likewise, Piggot (2001) argues that when a data set has only a few or dispersed missing observations, the assumption of MCAR data is more likely to apply.

Following the assumption that the complete cases are representative of the originally identified sample, inferences based on only the complete cases are applicable to the larger sample and the target population. Hence, results coming from complete case analysis (performed by listwise deletion) for MCAR and MAR data are generalizable to the target population. However, if more than 5% of the data is missing, deleting the missing data will result in a reduced sample size and an increased standard error of the parameter estimates.

In other occasions of complete case analysis, when the researcher wishes to preserve the number of cases originally identified for the review, other techniques may be incorporated, like mean imputation or regression imputation. Yet, these techniques have their own pitfalls, since filling a missing value with a plausible one changes the distribution of the relevant variable by decreasing the variance that is likely present, since the true values could vary from the mean (Little, 1992). In addition, the increased sample size that occurs, results in smaller standard errors, compared to the ones that would have occurred with real values. What's more is that bias in the estimation of variances and standard errors increases when estimating multivariate parameters such as regression coefficients (Little & Rubin, 2002).

An alternative option would be available case analysis (performed by pairwise deletion) which involves deleting a case when it is missing a variable required for a particular analysis but including that case in analyses for which all required variables are present. Inevitably, with pairwise deletion, the total N for analysis will not be consistent across parameter estimations and this could potentially result in awkward outcomes, e.g. correlations that are over 1. Nonetheless, between the two methods, only complete case analysis provides valid estimates under the least number of conditions and it is thus applicable to a wider range of situations than available case analysis. Yet, it cannot be considered as the perfect 'suits-it-all' solution in handling missing data.

Having discussed some of the options of dealing with missing data, a more practical way should also be addressed. This more practical way suggests that after choosing which imputation method to implement, the researcher 'runs' the data with and without the "incomplete" cases and sees if the results change in any way. If they don't, then this is a strong indicator that missing

data does not constitute a serious threat for the reliability of the results from the analyses of that specific dataset.

With regards to the first study, i.e. the correlational part of the research (Part A), there are no variables with 5% or more missing values in a questionnaire with 66 items - variables (6 categorical and 60 scale variables). Based on the missing values analysis there were no variables with more than 2.2% of missing data. Little's MCAR test indicated that the data were missing completely at random, $\gamma_2 = 532.329$, p = .146. Since all variables were only moderately correlated, missing data were resolved using the expectation maximization (EM) method, so as to conduct a complete case analysis. EM method produces even more reliable results when conducted within each scale, i.e. separately for all items of each scale, rather than performed on the whole dataset, thereby this procedure will be followed in this study (and study 2 that follows). There were, however, three measures for which EM missing value replacement would not work well; these are the two feeling thermometers and the IOS measure. The few missing values on these scales (0.8% for Thermometer1, 0.5% for thermometer2 and 1.1% for IOS) were replaced based on comparisons of similar measures, i.e. feelings for the outgroup were compared and replaced accordingly with the IOS and feelings for the ingroup were replaced based on comparisons with item an item of the Multicultural Attitudes scale "All children can be friends". (The same strategy was used in study 2).

General and Context-Specific Hypotheses

After factor analysis the scales took their final form to be used in the forthcoming studies and to provide information that will serve to investigate the hypotheses set by the researcher. In addition, concerning quantity of contact, all children in the study stated that they had no prior

experiences with Syrian refugees, thereby this measure was not used any further. As already stated, the general aim of the present thesis is to reveal the prevalent opinions and attitudes of primary school children attending public Greek schools toward the incoming Syrian refugee children, while identifying some of the key factors that impact these opinions and attitudes. After having illustrated these factors (either mediators or predictors) the next step is to put them into a real-life setting, i.e. a Greek primary school, and attempt to alter children's attitudes, even their actual behaviours, towards more positive "ratings". Thereby, two studies were carried out, in order to achieve the above general goals, and a number of other more context specific objectives. Thus, for the first study, which is a cross sectional study taking place in two types of schools (highly homogeneous and highly heterogeneous, in terms of children's ethnic background) the specific hypotheses set are:

Hypotheses of Study 1

- a) Type of school (heterogeneous vs homogeneous) will have an impact on children's attitudes towards refugee children, meaning that children who attend ethnically heterogeneous schools will be less prejudiced towards refugee children.
- b) Type of school will have an impact on children's feelings of intergroup threats, meaning that children who attend ethnically heterogeneous schools will show less feelings of intergroup threats.
- c) Type of school will have an impact on children's sense of inclusion of the other in the self (IOS), meaning that children who attend ethnically heterogeneous schools will be more likely to expand the idea of the self to include the outgroup.

- d) Type of school will have a positive impact on children's empathy meaning that children who attend ethnically heterogeneous schools will show more empathy towards the refugee and more empathetic sadness towards children in distress.
- e) Perceived school climate impacts empathy, IOS, feelings of intergroup threats and intergroup attitudes.
- f) Intergroup Threats are negatively related to intergroup attitudes.
- g) Recognition for Need, IOS and Empathy are positively related to intergroup attitudes.
- h) Younger children (3rd Grade) will be less prejudiced towards refugee children, compared to 5th Grade children, based on the fact that younger children are less likely to adhere to unfair outgroup norms, as they tend to incorporate moral reasoning in their judgements more profoundly compared to older children (Killen & Rutland, 2011) on the one hand. On the other hand, SDIT (Nesdale, 2004) proposes that ingroup preference is not translated into outgroup dislike. Outgroup dislike is mostly impacted by ingroup norms, which become more salient with age. Third grade children are, then, more likely to be less sensitive to ingroup norms of exclusion, whereas fifth grade children, are more likely to conform to ingroup exclusionary norms, as well as to have increased feelings of threats posed by the outgroup. Similar results are reported by Nesdale (2008) regarding ethnic prejudice which got higher with age and also by Killen & Stangor (2001) who found that stereotype use did not decline after the age of 7-8 years, as suggested by cognitive developmental models, rather stereotyping used to justify exclusion increased with age, as a result of increased concern about group functioning.

 i) Finally, it is hypothesized that the constructs implemented in the study can be combined in a comprehensive SEM model (please see figure 1) and that the emerging SEM model will be group invariant (for gender, age, ethnicity and different type of school groups).

Study 2 is an intervention study which aims to create fictitious intergroup contact conditions and enhance the promotion of the mediating and predictor factors that potentially positively impact prejudice toward the Syrian refugee. In specific the hypotheses set in study 2 are:

Hypotheses of Study 2

- a) Exposure to the puppet (intervention 2) will positively impact empathy towards the refugee and empathetic sadness.
- b) Exposure to the puppet will reduce feelings of intergroup threats.
- c) Exposure to the puppet will positively impact Inclusion of the Other in the self.
- d) Exposure to the puppet will promote positive intergroup attitudes.
- e) Contact with a puppet along with activities (intervention 1) of cooperation will have more profound impact with regards to what hypotheses a, b, c & d above suggest.
- f) Positive outcomes on empathy, intergroup threats, IOS and intergroup attitudes will be expected to emerge for both age-groups of children in the two intervention groups. However, if based on the SIDT it is expected that more profound changes will be detected in older children, if 5th grade children adhere to unfavorable ingroup norms for the outgroup.

Analytical Strategy

To investigate all the above hypotheses, as well as to provide a general depiction of the relevant field, study 1 requires a big sample coming from two distinct school types, as defined by

their population composition, i.e. a) schools in the suburbs with very high percentages of students of a Greek ethnic background and with minimum opportunities for intergroup contact outside the school and b) schools situated in the city centre with high percentages of children of a non-Greek ethnic background and with high maximum opportunities for intergroup contact outside the school. McGlothlin and Killen (2010) report similar methodologies used, i.e. research in ethnically non-mixed (over 90% of the students were European Americans) primary schools (McGlothlin & Killen, 2006) and research in ethnically mixed primary schools (McGlothlin et al., 2005) that showed that racial bias was only revealed by European American children in nonmixed schools, but not in ethnically mixed schools, even though both studies addressed children of the same age and, even, in the same school district. Likewise, Killen and Rutland (2011) report a number of studies which indicate that the local multicultural context within the classroom can help limit ethnic exclusion and the development of negative ethnic intergroup attitudes (Verkuyten and Thijs, 2001, 2002; Crystal, Killen, &Ruck, 2010; Kinket & Verkuyten, 1999). Killen and Rutland (2011) discuss research findings (for a review see Verkuyten, 2008) which suggest that multicultural education helps build a school climate that promotes positive attitudes toward cultural diversity, deals with negative interactions between children from divergent groups and promotes tolerance to others from diverse cultures. Killen and Rutland conclude that "the ethnic composition of a school influences the level of social exclusion and intergroup bias shown by children" (p.178).

On the other hand, study 2, which is an intervention study based on a quasi-experiment design that aims to build on the findings of study 1, can be implemented with a much smaller sample coming from a relevantly ethnically homogeneous primary school (high % of Greek

students). Findings from study 1 regarding the key factors that impact prejudice (e.g. intergroup contact and empathy induction) are incorporated in study 2 to reveal just how much critical they may prove to be in reducing prejudice outside the laboratory, in an actual school setting.

In the next chapter study 1 will be thoroughly presented starting from the specific methodology used in the study, followed by the presentation of the results from the conducted analyses and the discussion of the results.

CHAPTER 3: STUDY 1

Abstract

Study 1 is a cross sectional study that addresses the possible role of the school climate as perceived by the students, as well as of the ethnic composition of school's population, on prejudice toward the Syrian refugee children outgroup. In doing so, the study investigates a number of potential mediators in the above relationships and identifies the significant mediating role of perceived intergroup threats, two different forms of empathy (Empathy toward the *Refugee* and *Empathetic Sadness*) and of the *Inclusion of the Other in the Self (IOS)*. The study proposes a comprehensive SEM model, one that takes into account the basic findings of the analysis, while it originates in that it approaches children's perceived intergroup threats not as a self-evident construct or as the expansion of adults' respective feelings of threats (symbolic or realistic), rather it attempts to address children's concerns based on their developmental level, by implementing newly developed measures for this reason. Finalizing the proposed model was followed by four invariance studies based on gender, grade, type of school and parents' ethnicity, to provide further information regarding the role that Gender, Grade, Type of School and Parents' Ethnicity may play, as well as to offer a strong test of robustness of the proposed SEM model.

Keywords: *intergroup contact, intergroup threats, empathy, IOS, prejudice, SEM, invariance studies*

Aim and Hypotheses of the Study

The present study aims at revealing the predictive power of a number of factors on prejudice amongst primary school aged children living in Athens, toward the Syrian refugee children that

were expected to attend the Greek schools soon. It also seeks to build a comprehensive model that would combine the predictive power of these factors (either as distal predictors or as mediators) of prejudice. Thus, the scope of the study is twofold; first to investigate the particular effect of each predictor variable on the outcome measures of attitudes toward the outgroup and second to attempt to include the most essential of these in a conceptual model that predicts prejudice toward the Syrian refugee children outgroup. In view of the evidence that suggests that intergroup contact reduces prejudice toward the outgroup the specific hypotheses of the study are the following:

a) The *Type of School* defined by the ethnic composition of a school's population (heterogeneous vs homogeneous) impacts children's attitudes towards the Syrian refugee children (CBI, Attitudes toward the Refugee and IOS), meaning that children who attend ethnically heterogeneous schools will be less prejudiced towards refugee children. Even though there have been research findings indicating that negative intergroup contact may result in increased feelings of threats (Stephan et al., 2002) or increased anxiety and unwillingness for future contact (Barlow et al., 2012), yet in the present study since the context under study regards schools, it is hypothesized that intergroup contact occurs through collaboration activities, as part of a school's curriculum, which are organized and most of the times supervised activities, thereby it stands better chances to promote positive intergroup contact. Laurence (2020) examined how adolescents' intergroup interaction through organized social participation produced improvement in attitudes, while mere participation had no impact on young people's levels of negative interethnic contact.

- b) The *Type of school* will have an impact on children's feelings of intergroup threats, meaning that children who attend ethnically heterogeneous schools will show lowered feelings of intergroup threats.
- c) Children attending the heterogeneous schools will exhibit higher levels of empathy toward the refugees and of empathetic sadness towards children in distress.
- d) The *Type of School* will impact children's perceptions regarding their school's climate. It is hypothesized that children in the ethnically heterogeneous schools will perceive their school's climate (as measured in the study) more positively, since students' heterogeneity may enhance more creative and enjoyable experiences within the school context.

In addition, stemming from theory on intergroup threats and research on empathy induction, as well as on research findings concerning the beneficial effects of a positive school climate for all parties, further hypotheses of the study are the following:

- e) Perceived school climate impacts empathy, IOS, multicultural attitudes, feelings of intergroup threats and intergroup attitudes.
- f) Intergroup threats are negatively related to intergroup attitudes.
- g) Recognition for Need, multicultural attitudes, IOS and empathy are positively related to intergroup attitudes.
- h) The above constructs will be combined in a comprehensive SEM model (please see figure 1) and the emerging SEM model will be group invariant (for gender, age, ethnicity and different type of school groups), as it is hypothesized that the mechanisms through which prejudice reduction works will be the same irrespective of the type of school.

Finally, based on the Social Identity Development Theory (Nesdale, 2004, 2005, 2007) around the age of 9-10, children, under specific circumstances (see literature review on SIDT above) tend to identify more strongly with the ingroup and adhere to ingroup norms. On the basis of this, the study also presupposes that:

 Younger children (3rd Grade) will show preferable attitudes towards refugee children and report lower levels of feelings of threats coming from the Syrian children outgroup compared to 5th Grade children.

Methods

Participants

For the implementation of the research an approval was granted, by the Greek Ministry of Education, Research and Religious Affairs and the Greek National Bioethics Committee (Institute of the Educational Policy). The target population for the present research study was elementary school students attending schools in the geographical prefecture of Attica in Greece. Once a criterion was set to include two type of schools a) with a very high percentage of immigrant students > 60% and schools b) with a very high percentage of Greek students > 80% participating schools were selected from the schools list found on the webpage of the Ministry of Education Research and Religious Affairs. Due to the population composition in Athens some of the participating schools would have to be situated a) in the city centre of Athens because they have higher proportions of immigrant students and b) the rest of the schools would have to be situated in Attica suburbs that have high proportions of Greek students. Hence selection procedures were based on the location of the schools, but also aimed at achieving specific population composition. In specific, from the wider list a subsample list of all schools situated in

the city centre and have high percentages of immigrant students was extracted (i.e. heterogeneous schools) and then another subsample of the original list included schools situated in the southern suburbs of Attica with high ethnic homogeneity. This was done due to convenience sampling issues, since the researcher had already had professional contacts with staff working in that area in the past. In addition, these schools meet the population homogeneity criterion, as they have very low numbers of immigrant students. Following the selection of schools, the researcher contacted the head teacher of each school and explained the aims and methods of the research, thus securing consent for the participation of the school. To all the schools, that displayed participation interest, a letter was sent describing the research aims and procedure together with the letter of approval from the Ministry of Research and Religious Affairs. Following the consent of the schools to participate in the research, all third grade and fifth grade students from these schools were considered eligible to participate in the study. Then an envelope containing a cover letter, an informed consent form to be signed by the parents and the contact information of the researcher was given to each student.

Participants were eventually drawn from 14 elementary public 6-year schools, all situated in the geographic prefecture of Attica (table 11). The original plan was to incorporate 5 suburban and 5 central schools, but the fact that there were some schools with less students per grade (e.g. some schools had only one 3rd and one 5th grade class), along with the fact that response rates in some suburban schools were much lower, compared to the central schools, led to the decision to increase the number or the participating suburban schools. Therefore, nine (9) of the schools were situated in suburban areas and five (5) of the schools were situated in the city centre. The total number of participants was 660 students of which 332 were boys (50.3%) and 328 were

girls (49.7%), 252 of them attended the 3rd grade, which constitutes the 38.2% of the total sample (126 boys and 126 girls) and 408 of them attended the 5th grade which constitutes the 61.8% of the total sample (206 boys and 202 girls). Furthermore, overall Greek and migrant children within each type of school satisfied the composition of the population criterion, as illustrated in table 11. By the time the research was carried forward, there were no Syrian refugee children attending the schools involved.

Table 11

	Centre Scho	ools	Suburban Scl	Total	
Ethnicity	Greeks	Migrants	Greeks	Migrants	
	<i>N</i> =124 (39,2%)	N=192 (60,8%)	N=309 (89,8%)	N=35 (10,2%)	660
	3 rd grade	5 th grade	3 rd grade	5 th grade	Total
Girls	79	93	47	109	328
Boys	62	82	64	124	332
Total	141	175	111	233	660

Number of participants as a function of gender, ethnicity and school grade (study 1)

In specific, after obtaining the schools' consensus, the researcher visited the schools in order to give all students, attending the 3rd and the 5th grade, an envelope with the cover letter and an informed consent letter addressed to the parents. Children's age attending the 3rd grade ranged from 7.8 to 8.9 years in September 2017 (when the school year started) and children's age attending the 5th grade ranged from 9.8 to 10.9 years. The reason for choosing these two age groups relates to the inferences made by the Social Development Identity Theory (SIDT) which

poses that children start to develop a clearer sense of the "properties" that formulate a group's identity, around middle childhood and on, and by that age, accordingly, given certain favourable conditions, they tend to show prejudice for the outgroup, as they are already in the *Ethnic Prejudice phase* (Nesdale, 2004). The conditions that enhance prejudice toward the outgroup regard the degree of ingroup identification, the degree that the outgroup is conceived to be a threat for the ingroup, as well as on whether the ingroup norm is to show prejudice (Nesdale, 2004). Likewise, ingroup identity appears to be of a latent nature before the age of 9 while strengthens and becomes more salient with age (Killen and Rutland, 2011). Accordingly, children with age understand the multiple factors that have to do with group dynamics, like for instance they may even exclude an ingroup member, if that member deviates from ingroup norms. Killen and Rutland also discuss that young children (up to 7 years of age) tend to rely upon their moral judgement (what is fair to do) when deciding who to exclude or to include or when allocating resources, while older children, may choose social conventional reasoning over moral decision making for their ingroup's societal norms sake. Finally, research evidence from Cameron et al. (2006, 2007) and Davies et al. (2011) support the idea that younger children may in fact be more open to transforming any prejudicial attitudes into more favourable ones, while they found no age-related differences on prejudice prior to their prejudice reduction interventions (for more details see chapter 1).

On a second visit the researcher collected the informed consent letters and gave out the questionnaires to the children for whom parental consent was sought. It should be noted, as already mentioned earlier, that parents whose children attended the schools in the suburbs were more sceptical and less willing to offer their consent. In several cases they contacted the

researcher asking for more details; a few of them asking to check the questionnaires themselves, before allowing their children to participate. However, this was not an option, since the researcher presumed that there was a high possibility that the parents would guide their children's responses on the questionnaire. For that reason, more suburban schools were added and included in the research, in order to achieve higher numbers of participants. On the contrary, parents whose children attended central schools were more likely to give their permission, even though many of them are not fluent English or Greek speakers, i.e. the two languages used in the cover letter and the consent forms. Parents' readiness to consent for their children's participation was attributed to the fact that parents in these schools acted in a similar way in previous studies carried out in their children's schools (information provided by the head teachers in these schools). The final response rates for the suburban schools was ranging from 50% to 60%, whereas the corresponding rate for central schools was ranging from 90% to 100%. This discrepancy in response rates across the two types of schools may suggest that parents of children attending the suburban schools have more negative beliefs regarding refugees, thereby they did not want their children to participate in the study, or that they may had been worried that had their children participated in the study, might had resulted in children handing over family "secrets" and prejudicial beliefs. On the other hand, this finding might also introduce selection bias, meaning that more negative children are being under-represented in suburban schools. However, the researcher was informed by the school authorities of some of the suburban schools that specific families in their schools were consistently hesitant or negative towards allowing participation of their children in previous studies that had been carried out in their schools. In one occasion, one of the parents contacted the researcher asking to go through the questionnaire,

before allowing the child to participate, because "he didn't trust any of the educational authorities in the country".

Procedure

The questionnaires were administrated to students that agreed to participate according to research procedures, in class during school time between January 2018 and April 2018. The aims and procedures of the study were explained to the students in detail before administrating the questionnaires. The students were informed that the research study aimed at revealing how students in Greece feel about their schools and how students in Greece feel about the incoming Syrian refugee children and their families. For the purposes of the research, a short discussion aiming at distinguishing the term "immigrant" from that of a "refugee" preceded the completion of the questionnaires. Students were also informed that their participation is voluntary, and that confidentiality will be kept.

The importance of completing the questionnaires as accurately and honestly as possible was underlined along with the fact that there is no right or wrong answer. It was also made clear that the questionnaires will not be graded and nobody, except from the researchers, will have access to the answers. The questionnaires were administered by the main researcher.

Regarding the completion of the questionnaire all instructions were read out aloud and explained to children. Accordingly, all questions were read aloud, one by one, and children were asked to follow the researcher's pace in filling in the questionnaire, because there were some difficult to process items (especially for the third-grade students). The researcher was also available in case children had any questions during the whole completion session, yet still the

researcher's interference was limited to minimum, to reassure that standardization of the process would not be jeopardized.

Measures & Data Analysis

All measures used in the study were presented in the previous chapter (General Methodology). These include the *Realistic Threat scale*, the *Recognition for Need scale*, the *Group-Esteem Threat index*, the *Multicultural Attitudes scale*, the *Feelings Thermometer for the Outgroup*, the *Feelings Thermometer for the Ingroup*, the *Attitudes toward the Refugee scale*, the 3 subscales of the *Comprehensive School Climate Inventory* (CSCI), namely the *Social & Civic Learning scale*, the *Rules & Norms scale*, and the *Student – Student Relationships scale*, the *Empathy toward the Refugee index*, the *Empathetic Sadness scale*, the *Contact Behavioural Intentions scale* (CBI) and finally the *Inclusion of the Other in the Self* (IOS).

Regarding the statistical analyses that followed preliminary analyses, data analysis was conducted via a) the SPSS package (v. 25). In specific, the analyses used were Independent Samples t-tests, ANCOVA and Mediation Analyses (*PROCESS*, Hayes, 2012). In addition, further analyses were conducted via b) the AMOS package version 20 (Arbuckle, 2011) in order to come up with a new more detailed model that would combine findings from previous studies on contact theory, prejudice and the impact of a number of mediating and/or moderating factors, but would also add new perspectives regarding the possible role of the school climate as well. The Contact Theory (Allport, 1954) has proposed and repeatedly has proven over the years and on a worldwide basis the merits of intergroup contact for prejudice reduction (Pettigrew & Tropp, 2006; Pettigrew et al., 2011; Davies et al., 2011; Zhou et al., 2019) between the ingroup and the outgroup. Research has also consecrated on the circumstances during intergroup contact

that seem to escalate prejudice reduction, as well as on several factors that play a mediating or a moderating role in the intergroup contact-prejudice reduction phenomenon. Intergroup threats (Mackie, Smith & Ray 2001), the inclusion of the other in the self and empathy (Batson et al., 2002; Hewstone et al., 2014) are examples of factors that have been found to play a mediating role, whereas other categorical variables like gender, age, ethnic background or educational level may play a moderating role (Pettigrew & Tropp, 2006; 2011). The basic conceptual theoretical model to be tested is shown in figure 1.

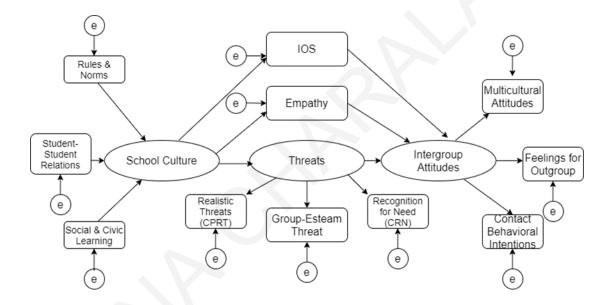


Figure 1. The Basic Conceptual Model for the Relationship of Intergroup Contact and Attitudes

Altogether the aim is to build a more comprehensive model that would fit the data and be evaluated through Structure Equation Modeling (SEM) with maximum likelihood estimation. Model fit indices include the traditional chi-square test of model fit, the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the standardized root mean square residual (SRMR). Since, the chi-square statistic as a measure of the overall model fit is sensitive

to sample size and may overestimate the lack of model fit (Bollen, 1989), the following goodness-of-fit indices are additionally examined when models are assessed: The Comparative Fit Index (CFI), the Standardized Root Mean Square Residual (SRMR), and the Root Mean Square Error of Approximation (RMSEA), along with a 90% Confidence Interval for RMSEA. The cut-off criteria for evaluating model fit were adapted by Kline (2011) and suggest the following values; CFI \geq .95, RMSEA \leq .05(or .08), SRMR \leq .05(or .08). In addition, three information criteria related to parsimony were considered: Akaike's (1987) Information Criterion (AIC), the Consistent AIC (CAIC; Bozdogan, 1987) which takes sample size into account, and Bayes Information Criterion (BIC; Schwartz, 1978) which penalizes for model complexity more profoundly. Lower AIC, CAIC, and BIC values imply better fit.

Results

Preliminary analyses

Preliminary analyses were conducted for each study in order to reveal any normality issues, to check for homoscedasticity and homogeneity of variance, to check for linearity and multicollinearity, as well as to check for outliers in the data.

Normality

When checking for normality the aim is to examine whether the data under study are normally or approximately normally distributed. The normality of the data in this study was assessed after combining results from normality tests and from the relevant produced boxplots. For all the variables the Kolmogorov-Smirnov, as well as the Shapiro-Wilk tests were all

significant, indicating that normal distribution for all variables was at question. However, both tests are sensitive to big samples, meaning they can be significant even for small and insignificant effects (Field, 2013). For that reason, the relevant produced boxplots and histograms were also assessed. For some variables these plots also appeared to deviate from normal distribution (please see Appendix B).

To reveal the true nature of the problem, skewness and Kurtosis were also assessed for all the variables. A "loose" criterion; that is a value of ± 3 (when the value was divided by its respective standard error), was set as the threshold for acceptable levels of skewness and kurtosis, and this was decided upon the assumption that in big samples normality may not be an issue (Field, 2013). Accordingly, Brown (2006) argues that acceptable values of skewness and kurtosis (when divided by its standard error) fall between -3 and +3, and kurtosis is even appropriate from a range of -10 to +10 when utilizing SEM.

Results revealed that while some of the variables appeared to have a normal or an approximately normal distribution, for a number of other variables the assumption of normality was violated. Starting from the newly developed *Realistic Threat Scale*, results indicated that all items were both skewed as well as suffered from kurtosis. With regards to the *Recognition for Needs Scale*, even though there were some problematic values concerning some of the items in the scale, the depiction of the relevant Q-Q plots and the histograms was acceptable, since the values of skewness and kurtosis did not severely deviate from normality. Accordingly, Skewness (2.13) and Kurtosis (2.92) values for the Group Esteem Threat were also acceptable.

Results for the *Multicultural Attitudes Scale*, which is also a newly developed scale, based on items from the preceding pilot study, indicated that all the items were somehow problematic, meaning that they were either skewed or had large kurtosis values or both (values $\geq \pm 10$) and produced abnormal Q-Q plots.

With regards to the two Feeling Thermometers again results revealed out of the bounds values of kurtosis for both thermometers and of skewness for one of the thermometers. In specific, the feeling thermometer that regarded feelings about children that had the Greek citizenship had skewness and kurtosis values that even exceeded the acceptable values for SEM analysis (± 10).

For the four items included in the *Attitudes towards the Refugee Scale* the produced Q-Q plots appeared to be normal. However, for two of the items skewness and kurtosis values were slightly above the originally set bounds (\pm 3 when divided by their standard error). The CSCI scale was assessed as a 3-dimensional scale, as already discussed in the Methodology section. For all the subscales all the items had at least one of the two values (skewness and kurtosis) falling out of the bounds. However, the *Student – Student Scale* produced good Q-Q plots and histograms that approximate normality. In contrast the *Rules and Norms Scale* was severely skewed with skewness values that were well above \pm 10, indicating that they are problematic even for SEM analysis. Thereby, this pitfall will be accordingly addressed through non-parametric tests along with tests that assume normality.

The items of the two scales that measured empathy (*Empathy towards the refugee & the Empathetic Sadness Scale*) had skewness and kurtosis values standing well above the bounds.

The Q-Q plots and the histograms were also problematic. Accordingly, all the items on *CBI* scale were either negatively skewed or suffered from kurtosis, even though none of the values exceeded the value of ± 10 . Finally, the *IOS* measure had a normal skewness value of 1.97, but an out of bounds negative kurtosis value (-5.87). The associated Q-Q plot appeared to be slightly abnormal.

Following the violation of the assumption of normality, it was decided to run all the basic analyses that followed preliminary analyses using non-normal tests, along with the tests that assume normality and check whether the results differed, even though, as Field (2013) argues in large samples, because of the central limit theorem the assumption of normality is almost unimportant. Upon this decision and since there were no important contradictory results, for readability reasons, the reported results are the ones based on the tests that assume normality in the data.

Homogeneity of Variance / Homoscedasticity

As Field (2013) argues in designs where several groups of participants are tested, the assumption of homogeneity of variance means that each of these samples comes from populations with the same variance. In correlational designs, this assumption means that the variance of the outcome variable should be stable at all levels of the predictor variable. For the purposes of the present study, both approaches were used. At first the sample was grouped based on four factors; *gender, class, type of school* and *Parent's Ethnicity*. Levene's test of homogeneity of variance conducted separately for all the dependent variables indicated that variance was equal between the groups created for almost all dependent variables. When the

sample was grouped based on *Class* indications for inequality regarded only the *Student-Student Relations* F(1, 658) = 5.98, p = .015 and the *Attitudes Toward the Refugee* Scale F(1, 656) = 0.35, p = .032. When the sample was grouped based on *Gender* unequal variance was spotted for the CSCI Rules & Norms Scale F(1, 658) = 2.28, p = .003 and the *Group Esteem Threat Index* F(1, 656) = 0.01, p = .010. When the sample was grouped based on the *Type of School* indications for inequality regarded only the *Empathetic Sadness Scale* F(1, 658) = 7.59, p = .006. Finally, when the sample was grouped based on *Parent's Ethnicity* unequal variance was spotted only for the *Empathetic Sadness Scale* F(1, 658) = 1.99, p = .023.

Following Levene's tests the degree to which variance of the predictor variables around the mean of the outcome variable was roughly equal was assessed using the *zpred. vs zresid.* plots.

Linearity & Multicollinearity

Darbin Watson was closer to 2 when the outcome variable was *IOS* or *CBI*. However, when the outcome variable was *Attitudes*, then the Durbin Watson value is below 1, indicating a positive correlation between the residuals. However, this is not such a robust test, since even changing the order of the cases listed in the dataset impacts the Durbin Watson value. Hence, plotting residuals against predictor variables is considered a more robust way to check for correlations of the residuals. The produced plots ideally should look like a rectangle and vary from +3 to -3. In this study, when the outcome variable is *Inclusion of Other in the Self*, and *Contact Behavioural Intentions* values in all plots vary between ± 3 , even though they don't seem to exactly apply to a rectangle's shape. When the outcome variable is *Attitudes towards the*

Refugee, again values in all plots vary between ± 3 , but still the shape of the plotted residuals against the predictor variable is not a rectangle, but rather resembles a side rectangle.

In addition, the screening analysis comprised of the descriptive statistics for all the variables and frequencies analysis was also conducted to ascertain valid percent for responses from the participants to all the questions in the research and corrections were made if incorrect entries were found.

Table 12

Descriptive Statistics for all scales

Measure	Range	М	SD
Realistic Threat	1 – 5	2.65	0.88
Recognition for Need	1-5	4.31	0.71
Group Esteem Threat	1 - 5	2.50	0.99
Multicultural Attitudes	1 – 5	3.56	0.83
Outgroup Thermometer	1 – 30	21.31	7.23
Ingroup Thermometer	1 – 30	26.31	5.25
Attitudes Toward the Refugee	1 – 5	3.25	0.99
CSCI Social & Civic Learning	1 – 5	4.10	0.77
CSCI Rules & Norms	1 – 5	4.22	0.70
CSCI Student-Student Relations	1 – 5	3.56	0.86
Empathy Toward the Refugee	1-5	4.27	0.78
Empathetic Sadness	1 – 5	3.80	0.94

Contact Behavioral Intentions	1 – 5	3.57	1.04
IOS	1 - 7	4.01	1.85

Note: High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

As illustrated in table 12 above mean scores for all scales that reveal positivity are above the midpoint of the scale based on the scales range, i.e. above 3 for Recognition for Need, for Multicultural Attitudes, for Attitudes toward the Refugee, for the three CSCI scales, for Empathy Toward the Refugee, for Empathetic Sadness and for Contact Behavioral Intentions, likewise above 4 in IOS and above 15 for the two Feeling Thermometers. Accordingly, mean scores on the two scales that measure threats are very close to 2.5, indicating low feelings of threats.

Correlations among all variables in the study showed that almost all variables are significantly moderately correlated. The only variable that appears not to be significantly correlated with a number of variables is *Feelings for the Ingroup*, in fact this variable is not significantly correlated to any other variable but the *Feelings for the Outgroup* variable in the central schools. However, the relationship is positive, in both types of schools, meaning that increased positive ingroup feelings are related to increased positive outgroup feelings, thus in line with Nesdale's SIDT theory (2004) which indicates that "ingroup love" is not related to "outgroup hate". The very low non-significant correlation of feelings for the ingroup and attitudes toward the refugee, again in both types of schools, provides extra support to the aforementioned finding. Since the *Type of School*, i.e. central vs suburban schools, is considered the basic grouping variable in this study, the correlation matrix below shows correlations separately for central and suburban schools. Results are illustrated in table 13 below.

Table 13

Correlation Matrix of all the scales in the study for Central and Suburban Schools

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.Feelings for Outgroup	1	.20**	.56**	.33**	.36**	.55**	.32**	.34**	.39**	.21**	16**	38**	.53**	.60**
2.Feelings for Ingroup	,30**	1	.03	.06	.07	.03	.08	.11	.10	.04	02	01	.02	03
3.IOS	,54**	,13*	1	.31**	.38**	.46**	.33**	.31**	.40**	.22**	12*	32**	.72**	.53**
4.Empathy refugee	,32**	,07	,29**	1	.41**	.33**	.41**	.41**	.39**	.41**	16**	29**	.42**	.41**
5.Empathetic Sadness	,37**	,14**	,37**	,41**	1	.44**	.33**	.35**	.36**	.21**	12**	23**	.51**	.39**
6.Multicultural Attitudes	,47**	,07	,38**	,34**	,25**	1	.38**	.39**	.49**	.33**	32**	50**	.60**	.65**
7.Social Civic Learning	,28**	,15**	,33**	,21**	,38**	,30**	1	.57**	.40**	.33**	10*	30**	.44**	.44**
8.Rules Norms	,28**	,17**	,23**	,27**	,32**	,24**	,57**	1	.55**	.26**	21**	29**	.41**	.37**
9.Student Relations	,30**	,26**	,28**	,27**	,25**	,34**	,47**	,53**	1	.16**	21**	35**	.55**	.44**
10.Recognition for Need	,32**	,02	,29**	,40**	,33**	,36**	,31**	,27**	,18**	1	11	19**	.27**	.34**
11.Realistic Threat	-,26**	-,06	-,25**	-,20**	-,08	-,36**	-,08	-,12*	-,14*	-,26**	1	.20**	13*	18**
12.Group_Esteem	-,27**	-,08	-,23**	-,23**	-,14**	-,41**	-,29**	-,21**	-,26**	-,33**	,29**	1	- .37**	45**
13.Average CBI	,58**	,14**	,71**	,43**	,56**	,47**	,43**	,35**	,41**	,38**	-,21**	-,31**	1	.62**
14.Attitudes Refugee	,64**	,04	,55**	,36**	,34**	,62**	,29**	,23**	,30**	,37**	-,32**	-,34**	,64**	1

Note. Above the diagonal: Type2 School (Central). Below the diagonal: Type1 School (Suburban). *p<.05. **p<.01

Following correlation results for each type of school, table 14 shows the correlation matrix of all scales for 3rd Grade and 5th Grade separately, since age differences are of interest in this thesis. As illustrated, feelings for the ingroup are positively related with feelings for the outgroup and, as in the preceding comparison (i.e. central vs. suburban schools) feelings for the ingroup do not correlate with attitudes toward the refugees. On the other hand, for the 5th grade group of students *Realistic Threats* were more strongly negatively correlated with measures of positive outgroup attitudes, compared to the respective pairs of variables in the 3rd grade group of students. Likewise, only in the 5th grade group was there a relationship as high as .38 between Recognition for Need and Feelings for the Outgroup. This finding is in line with findings of the preceding pilot study which showed that only older children were in a position to appreciate the difficulties the refugees go through in a foreign country. Thus, younger children may not be capable of appreciating refugees' discomfort, which would generate positive feelings for the outgroup.

Table 14

Correlation Matrix of all the scales in the study for 3rd and 5th Grade Students

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.Feelings for Outgroup	1	.13*	.54**	.21**	.29**	.46**	.28**	.27**	.31**	.10	15*	36**	.51**	.61**
2.Feelings for Ingroup	,31**	1	.03	.09	.05	.02	.05	.05	.07	02	03	.03	.07	06
3.IOS	,56**	,07	1	.20**	.37**	.37**	.34**	.24**	.32**	.19**	13*	26**	.71**	.51**
4.Empathy refugee	,38**	,05	,37**	1	.31**	.22**	.36**	.38**	.32**	.30**	13*	21**	.32**	.27**
5.Empathetic Sadness	,42**	,13**	,41**	,46**	1	.28**	.37**	.40**	.30**	.10	10	16**	.54**	.35**
6.Multicultural Attitudes	,54**	,04	,47**	,41**	,40**	1	.34**	.33**	.43**	.27**	26**	45**	.42**	.59**
7.Social Civic Learning	,31**	,12*	,34**	,27**	,37**	,33**	1	.53**	.35**	.32**	13*	29**	.43**	.45**
8.Rules Norms	,33**	,16**	,30**	,30**	,32**	,30**	,59**	1	.51**	.19**	14*	28**	.36**	.36**
9.Student Relations	,37**	,22**	,36**	,34**	,32**	,40**	,48**	,55**	1	.02	23**	30**	.45**	.34**
10.Recognition for Need	,38**	,09	,30**	,47**	,38**	,42**	,32**	,31**	,28**	1	12	24**	.23**	.24**
11.Realistic Threat	-,25**	-,03	-,21**	-,22**	-,10	-,38**	-,05	-,16**	-,13*	-,25**	1	.22**	07	- .16**
12.Group_Esteem	-,30**	-,06	-,27**	-,30**	-,22**	-,45**	-,28**	-,21**	-,30**	-,31**	,25**	1	- .26**	- .41**
13.Average CBI	,59**	,06	,71**	,50**	,54**	,61**	,43**	,38**	,50**	,42**	-,23**	-,39**	1	.57**
14.Attitudes Refugee	,64**	,03	,58**	,44**	,39**	,67**	,31**	,28**	,40**	,42**	-,30**	-,40**	,68**	1

Note. Above the diagonal: 3^{rd} Grade Students. Below the diagonal: 5^{th} Grade Students). *p<.05. **p<.01

Independent-Samples T-tests

Following preliminary analysis and descriptive statistics, independent-samples t-tests were conducted to investigate hypotheses a, b, c and h, as well as to reveal any differences between groups created based on all grouping variables used in this study, namely *Gender, Class, Type of School* and *Parents' Ethnic Background* (both parents had to be born in a foreign country and be of a non-Greek ethnic background). As discussed earlier in the preliminary analyses section, prior to each parametric test here, the corresponding non-parametric Mann-Whitney test was conducted to investigate whether each non-parametric test's results would be of the same direction as the parametric test. Having done this and finding that the results did not differ, the results reported below are those of the parametric tests.

Independent-samples t-tests were conducted to compare all measures in the study for boys and girls separately. Results are shown in table 15 below. *Cohen's d* effect size is reported for statistically significant results only. However, any reported *d* values that are below 0.2 indicate that the difference between the two groups is considered to be trivial. Values of *d*=0.5 indicate a medium effect size and a *d*=0.8 indicates a large effect size. Based on the above guidelines, there were significant, yet trivial differences in the scores with girls scoring higher in the IOS measure (M=4.19, SD=1.78); *t* (658)=-2.28, *p*=0.02, *d*=0.190, the Feelings for the Outgroup Thermometer (Range 1-30, M=21.96, SD=7.07); *t* (658)=3.85, *p* < 0.01, *d*=0.178 and the Social and Civic Learning scale (M=4.17, SD=0.76); *t* (658)=-2.14, *p* = 0.33, *d*=0.170. Differences on Empathy Towards the Refugees (M=4.35, SD=0.70); *t* (658)=-2.63, *p* = 0.09, *d*=0.204, as well as on CBI (M=4.19, SD=1.78); *t* (658)=-2.28, *p* = 0.02, *d*=0.262 are considered to be small in

size and finally differences on the Empathetic Sadness scale (M=4.12, SD=0.80); t (658)=-9.53, p = 0.00, d=0.741 are considered to be of a medium to large size, compared to Boys whose corresponding means where as follows: IOS (M=3.84, SD=1.90), Social and Civic Learning (M=4.04, SD=0.77), CBI (M=3.44, SD=1.08), Feelings for the Outgroup Thermometer (M=20.68, SD=7.34), Empathy Towards the Refugee (M=4.19, SD=0.86) and Empathetic Sadness scales (M=3.47, SD=0.95).

Table 15

Descriptive Statistics for all measures and significance levels for boys and girls

	Воу	?S	Gi	rls		
Range	М	SD	М	SD	p value	Cohen's d
1 - 30	20.68	7.34	21.96	7.07	.023*	.178
1 – 30	25.98	5.27	26.65	5.22	.099	-
1 – 5	3.84	1.90	4.19	1.78	.015*	.190
1 – 5	4.19	0.86	4.35	0.70	.009**	.204
1 – 5	3.47	0.95	4.12	0.80	.000***	.741
1 – 5	3.50	0.86	3.62	0.78	.070	-
1 – 5	4.04	0.77	4.17	0.76	.033*	.170
1 – 5	4.17	0.69	4.26	0.71	.132	-
1 – 5	3.51	0.88	3.61	0.83	.146	-
1 – 5	4.28	0.75	4.35	0.67	.223	-
1 – 5	2.65	0.86	2.65	0.90	.997	-
	$ \begin{array}{r} 1 - 30 \\ 1 - 30 \\ 1 - 5 \\ 1 $	Range M $1-30$ 20.68 $1-30$ 25.98 $1-5$ 3.84 $1-5$ 3.84 $1-5$ 4.19 $1-5$ 3.47 $1-5$ 3.50 $1-5$ 4.04 $1-5$ 4.17 $1-5$ 3.51 $1-5$ 4.28	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	RangeMSDM $1-30$ 20.687.3421.96 $1-30$ 25.985.2726.65 $1-5$ 3.841.904.19 $1-5$ 4.190.864.35 $1-5$ 3.470.954.12 $1-5$ 3.500.863.62 $1-5$ 4.040.774.17 $1-5$ 4.170.694.26 $1-5$ 3.510.883.61 $1-5$ 4.280.754.35	RangeMSDMSD $1-30$ 20.687.3421.967.07 $1-30$ 25.985.2726.655.22 $1-5$ 3.841.904.191.78 $1-5$ 4.190.864.350.70 $1-5$ 3.470.954.120.80 $1-5$ 3.500.863.620.78 $1-5$ 4.040.774.170.76 $1-5$ 4.170.694.260.71 $1-5$ 3.510.883.610.83 $1-5$ 4.280.754.350.67	RangeMSDMSD p value $1-30$ 20.68 7.34 21.96 7.07 .023* $1-30$ 25.98 5.27 26.65 5.22 .099 $1-5$ 3.84 1.90 4.19 1.78 .015* $1-5$ 4.19 0.86 4.35 0.70.009** $1-5$ 3.47 0.95 4.12 0.80.000*** $1-5$ 3.50 0.86 3.62 0.78.070 $1-5$ 4.04 0.77 4.17 0.76.033* $1-5$ 4.17 0.69 4.26 0.71.132 $1-5$ 3.51 0.88 3.61 0.83.146 $1-5$ 4.28 0.75 4.35 0.67.223

Group-Esteem Threat	1 – 5	2.50	0.99	2.51	0.98	.912	-
Contact Beh. Intentions	1 – 5	3.44	1.08	3.71	0.97	.001**	.262
Attitudes Tow. Refugees	1 - 7	3.20	1.01	3.31	0.97	.160	

Note: 1. High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

2. *p* value refers to the mean difference between the two groups (p<.05=*, p<.01=**, p<.001=***

Following, Class (Grade) was set as the grouping factor and independent-samples t-tests were conducted to compare all measures in the study for 3rd grade and 5th grade children separately. All results are shown in table 16 below. In specific, there was a significant difference in the scores with 3rd grade students scoring higher in the IOS (M=4.29, SD=2.07); t (451.9)=2.89, p = 0.04, d=.240 (equal variances not assumed in the IOS scale), the CBI (M=3.71, SD=1.11); t (658)=2.60, p = 0.09, d=.210 the Feelings for the Ingroup Thermometer (Range 1-30, M=26.83, SD=5.51); t (658)=2.01, p = 0.045, d=.158, the Multicultural Attitudes (M=3.67, SD=0.84); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67, M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, p = 0.08, d=.218, the Student-Student CSCI (M=3.67); t (658)=2.67, t (6SD=0.86); t (658)=2.45, p = 0.15, d=.199, the Rules & Norms CSCI (M=4.32, SD=0.60); t (658)=2.99, p = 0.03, d=.251 and the Social & Civic Learning CSCI scales (M=4.29, SD=0.69); t (658)=3.85, p = 0.00, d = .294. Fifth grade children, on the other hand, scored significantly higher in the Recognition for Need Scale (M=4.36, SD=0.68); t (658)=-2.30, p = 0.02, d=.181the Realistic Threat Scale (M=2.71, SD=0.90); t (658)=-2.25, p = 0.03 and the Group Esteem Threat Index (M=2.65, SD=0.96); t (656)=-5.01, p = 0.00, d = .402. As shown on the table below effect sizes for significant differences are trivial for Feelings for the Ingroup, for Student-Student

Relations, for Recognition for Need and for Realistic Threat, while for the rest of the significant comparisons effect sizes are small, the highest being the one relevant to Group-Esteem Threat.

Table 16

Descriptive Statistics for all measures and significance levels between 3rd and 5th Grade Students

		3 rd Gr	ade	$5^{th} G$	rade		
Measure	Range	М	SD	М	SD	p value	d
Outgroup Thermometer	1 - 30	21.73	7.47	21.05	7.07	.243	-
Ingroup Thermometer	1 – 30	26.83	5.51	25.99	5.06	.045*	.158
IOS	1-5	4.29	2.01	3.84	1.68	.002**	.240
Empathy Tow. Refugees	1-5	4.24	0.69	4.29	0.84	.419	-
Empathetic Sadness	1 – 5	3.79	0.94	3.80	0.93	.908	-
Multicultural Attitudes	1-5	3.67	0.84	3.49	0.81	.008**	.218
Social & Civic Learn.	1 – 5	4.24	0.71	4.02	0.79	.000***	.294
Rules & Norms	1-5	4.32	0.60	4.15	0.75	.003**	.251
Student-Stud. Relations	1-5	3.67	0.86	3.50	0.85	.015*	.199
Recognition for Need	1-5	4.23	0.75	4.36	0.68	.022*	.181
Realistic Threat	1-5	2.55	0.85	2.71	0.90	.025*	.183
Group-Esteem Threat	1-5	2.26	0.99	2.65	0.96	.000***	.402
Contact Beh. Intentions	1-5	3.71	1.11	3.49	0.98	.009**	.210
Attitudes Tow. Refugees	1 - 7	3.28	1.00	3.23	0.98	.555	-

Note: High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

p value refers to the mean difference between the two groups (p < .05 = *, p < .01 = **, p < .001 = ***

Next the *Type of School* was used as the grouping factor and independent-samples t-tests were conducted to compare all measures in the study for children attending homogeneous schools suburban) and children attending heterogeneous schools (central) separately. There was a significant difference in the scores with children attending the central schools scoring higher in the IOS (M=4.38, SD=1.83); t (658)=-5.01, p = 0.00, d=.391 the Feelings for the Outgroup Thermometer (Range=1-30, M=21.99, SD=7.19)); t (658)=-2.30, p=0.02, d=.180, the Multicultural Attitudes (M=3.63, SD=0.84); t (658)=-2.02, p=0.04, d=.158, the Empathetic Sadness (M=3.90, SD=0.94); t (651.393)=-2.75, p = 0.06, d=.215 (equal variances not assumed in this scales), the Student-Student CSCI (M=3.63, SD=0.90); t (658)=-1.98, p = 0.049, d=.152, the Rules & Norms CSCI (M=4.32, SD=0.63); t (658)=-3.53, p = 0.00, d=.289, the Social & Civic Learning CSCI scales (M=4.29, SD=0.66); t (658)=-4.77, p = 0.00, d = .332 and the Attitudes Towards the Refugee scales M=3.35, SD=1.00); t (658)=-2.71, p = 0.07, d = .214. In addition to these findings, the greater discrepancy between ingroup and outgroup feelings within suburban schools compared to central schools is an indicator of higher ethnocentrism in the suburban schools. Results are shown in detail in table 17. As illustrated, overall, comparisons based on thy Type of school produced either trivial or small effect sizes.

Table 17

Descriptive Statistics for all measures and sig. levels for central and suburban schools

		Subur	ban	Cen	etral			
Measure	Range	М	SD	М	SD	p value	d	
Outgroup Thermometer	1 – 30	20.69	7.22	21.99	7.19	.022*	.180	
Ingroup Thermometer	1 – 30	28.65	4.81	25.95	5.68	.088	-	
IOS	1-5	3.67	1.81	4.38	1.83	.000***	.391	
Empathy Tow. Refugees	1 – 5	4.28	0.80	4.26	0.77	.661	-	
Empathetic Sadness	1 – 5	3.70	0.92	3.90	0.94	.006**	.215	
Multicultural Attitudes	1 – 5	3.50	0.80	3.63	0.84	.044*	.158	
Social & Civic Learn.	1 – 5	3.98	0.82	4.23	0.70	.000***	.332	
Rules & Norms	1 – 5	4.12	0.75	4.32	0.63	.000***	.289	
Student-Stud. Relations	1 – 5	3.50	0.81	3.63	0.90	.049*	.152	
Recognition for Need	1 – 5	4.35	0.70	4.27	0.73	.151	-	
Realistic Threat	1 – 5	2.65	0.90	2.65	0.86	.955	-	
Group-Esteem Threat	1 – 5	2.56	0.97	2.44	1.00	.097	-	
Contact Beh. Intentions	1 – 5	3.52	1.03	3.63	1.05	.188	-	
Attitudes Tow. Refugees	1 - 7	3.15	0.97	3.36	0.99	.007**	.214	

Note: High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

p value refers to the mean difference between the two groups (p<.05=*, p<.01=**, p<.001=***

Finally, Parents' Ethnicity was set as the grouping factor and independent-samples t-tests were conducted to compare all measures in the study for children who's both parents have a non-Greek ethnic background separately. There was a significant difference in the scores with children having both parents with a non-Greek ethnic background scoring higher in the IOS (M=4.40, SD=1.80); t (658)=-3.90, p < 0.01, d=.324, the CBI scale (M=3.74, SD=1.03); t (658)=-2.93, p = 0.04, d=.243, the feelings for the Outgroup Thermometer (Range=1-30, M=22.14, SD=6.70); t (658)=-2.14, p = 0.03, d=.176, the Multicultural Attitudes (M=3.71, SD=0.77); t (658)=-3.56, p < 0.01, d=.285, the Rules & Norms CSCI (M=4.32, SD=0.64); t (658)=-2.92, p = 0.04, d=.235, the Social & Civic Learning CSCI scales (M=4.29, SD=0.62); t (658)=-3.62, p < 0.00, d=.258 and the Attitudes Towards the Refugee scales (M=3.44, SD=0.96); t (658)=-3.63, p < 0.01, d=.298. There were, however, two measures for which children whose, at least one of the two parents is Greek, scored significantly higher; namely the Feelings for the Ingroup Thermometer (Range=1-30, M=26.78, SD=4.76); t (658) =-2.30, p =0.02, d=.253 and the Group-Esteem Threat Scale (M=2.59, SD=1.01); t (658) = 3.21, p = 0.01, d=.270. Furthermore, there was a scale for which significance was marginally not achieved, and thereby here is being reported merely as a trend regarding the *Realistic Threat Scale* (M=2.70, SD=0.90); t (658) = 1.94, p = 0.053). Results are shown in table 18 below and as shown, effect sizes for significant effects are small.

Table 18

Descriptive Statistics for all measures and significance levels for children with a Greek Background and children with an Immigrant Background

		Gree	eks	Immigra	nt Backgi	round	
Measure	Range	М	SD	М	SD	p value	d
Outgroup Thermometer	1 – 30	20.88	7.32	22.14	7.00	.033*	.176
Ingroup Thermometer	1 – 30	26.78	4.76	25.41	5.99	.003**	.253
IOS	1-5	3.81	1.85	4.40	1.79	.000***	.324
Empathy Tow. Refugees	1 – 5	4.27	0.82	4.28	0.73	.833	-
Empathetic Sadness	1 – 5	3.76	0.93	3.87	0.95	.159	-
Multicultural Attitudes	1 – 5	3.48	0.84	3.71	0.77	.000***	.285
Social & Civic Learn.	1-5	4.04	0.81	4.23	0.66	.001**	.258
Rules & Norms	1 – 5	4.16	0.73	4.32	0.64	.003**	.235
Student-Stud. Relations	1 – 5	3.52	0.86	3.64	0.84	.077	-
Recognition for Need	1 – 5	4.30	0.74	4.34	0.66	.512	-
Realistic Threat	1 – 5	2.70	0.90	2.56	0.85	.053	-
Group-Esteem Threat	1-5	2.59	1.01	2.33	0.92	.001**	.270
Contact Beh. Intentions	1-5	3.49	1.03	3.74	1.03	.004**	.243
Attitudes Tow. Refugees	1 - 7	3.15	0.99	3.44	0.96	.000***	.298

Note: High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

p value refers to the mean difference between the two groups (p<.05=*, p<.01=**, p<.001=***

Following independent samples t-tests, the impact of background ethnicity was investigated separately for each type of school, to control for the shared variance between these two variables. Results showed that children of an immigrant ethnicity attending highly homogeneous schools (with high % of Greek students) scored significantly higher only in the CBI scale t(342)=-2.06, p=.040, d=.372, while Greek children attending the heterogeneous schools scored significantly higher in the Feelings for the Ingroup measure; t(314)=3.004, p=.003, d=.357, the Realistic t(314)=2.114, p=.035, d=.233 and the Group-Esteem Threat measure: Threat measure; t(314)=2.861, p=.005, d=.318. Immigrant children attending the heterogeneous schools scored significantly higher only in the *Multicultural Attitudes* scale, t(239.729)=-2.533, p=.012, d=.295. Following these mixed results, ANCOVA analysis was conducted by controlling for Parents' Ethnicity. Results, revealed a different picture, as the impact of Type of School, when the impact of the covariate was removed was reduced only to IOS F(1,657)=11.394, p=.001, Empathetic Sadness F(1, 657)=5.581, p=.018, Rules & Norms, F(1, 657)=5.458, p=.020, Social & Civic Learning F(1, 657)=9.756, p=.002 and Recognition for Need F(1, 657)=4.470, p=.035, i.e. children in the heterogeneous schools scored higher on these measures. Thereby, it is assumed that the positive results for Feelings for the Outgroup, Multicultural Attitudes and Attitudes toward the Refugee in the Heterogeneous schools are to be attributed to children's immigrant ethnic background and not to the Type of School, whereas more positive school climate evaluations, IOS, Empathetic Sadness and increased Recognition for Need are attributed to the type of school.

Additionally, when the grade of the children was also regarded, within each type of school, results revealed that within the homogeneous schools 3rd grade students of a Greek background

and those of an immigrant background did not differ at any of the measures, whereas 5th grade Greek children, within the homogeneous schools, scored significantly lower on the *CBI scale;* t(231)=-2.493, p=.013, d=.538 as well as on the *Attitudes for the Refugee* measure; t(231)=-2.266, p= .024, d=.478 and the *Feelings for the Outgroup* thermometer; t(231)=-2.095, p=.037, d=.469 compared to 5th grade children of an immigrant background. Accordingly, within the heterogeneous schools 3rd grade Greek children scored significantly higher on the *Group-Esteem Threat* measure; t(139)=-2.470, p=.015, d= .415, whereas 3rd grade students of a migrant background scored significantly higher on the *Multicultural Attitudes* measure; t(85.028)=2.261, p=.026, d= .236. Fifth grade Greek children scored significantly higher on the *Feelings for the Ingroup* thermometer; t(165.016)=-3.983, p=.000, d= .586 and on the *Realistic Threat* measure; t(173)=-2.727, p=.007, d= .419 compared to 5th grade children of an immigrant background.

CFA & Structure Equation Modeling (SEM) path analyses

Having identified differences between groups based on the four grouping variables discussed in the previous section, the basic hypotheses of the study were partially tested and somewhat verified, but only regarding the individual effect of each of the 4 grouping variables separately. However, the objective of this study was to investigate the combined effect of the *Type of School*, and of the *School Climate*, through a number of mediators and build a comprehensive model that would explain prejudice amongst children regarding the Syrian refugee children outgroup and would serve as a theoretical baseline for future studies addressing this age group (primary school children).

Confirming the existence of direct effects between the predictor variables and the outcome variables in the study was set as the least precondition that would allow to build the proposed by the study's hypotheses model. Hence, indices of the school climate (based on the three CSCI subscales), as well as the type of school (central with high percentages of immigrant students > 60% and suburban with very high percentages of students with a Greek ethnic background over 80%) were tested as predictor variables for the three outcome variables used in this study, namely *Attitudes toward the Refugees, Contact Behavioral Intentions* (CBI), (positive) and *Feelings for the Outgroup*.

CFA Procedures for the CSCI subscales - Confirming the Proposed Structure

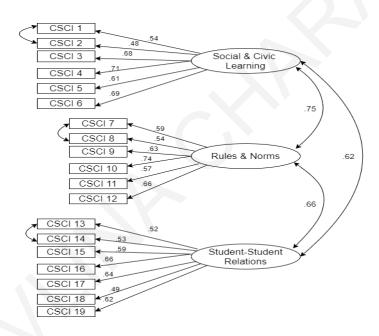


Figure 2. The 3 Subscales from the Comprehensive School Climate Inventory with factor loadings on each construct

First, to check for the direct effect of the three school climate indices (Social & Civic Learning, Rules & Norms and Student-Student Relations) on the three outcome variables

separately, a CFA was conducted so as to confirm the structure of the subscales and their correlations. Figure 2 shows a graphical presentation of the 3 subscales, along with factor loadings of each item on the specified construct.

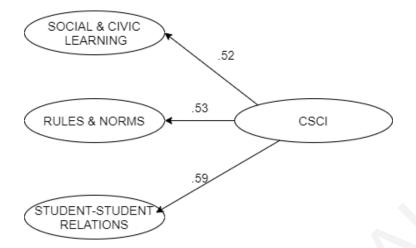
Even though the Chi Square Test came out significant $x^2(146)=262.803$, p<0.01, as it usually does with large samples, yet the rest of the fit indices used to assess the model were found to be very satisfying CFI=0.967, SRMR=.0363, RMSEA=0.035 [90% CI: 0.028-0.042], AIC=350.803, BIC=548,462, CAIC=592.462. In addition, all factor loadings were >.40 and there were not high standardised residuals (>±2.5). There were also three modifications regarding drawing covariances between 2 pairs of errors within each subscale (e1 to e2, e7 to e8 & e18 to e19). Finally, results were suggestive of discriminant validity since correlations among the three constructs ranged from .62 to .75, as well as of convergent validity, based on the loadings of the items within each factor (construct), as illustrated in figure 2 above.

An alternative solution?

Having established the existence of the three distinct constructs for the study's sample, an attempt was made to test whether a solution with the three constructs loading on a superordinate second order factor would fit the data well, even though the CSCI scale normally consists of 10 subscales. Analysis resulted in a non-acceptable solution. The alternative model, which is presented in figure 3 had the following fit indices (after a number of modifications regarding within subscale errors covariances); $x^2(150)=627.290$, p<0.01, CFI=0.866, SRMR=.0624, RMSEA=0.069 [90% CI: 0.064-0.075], AIC=707.290, BIC=886,980, CAIC=926.980. The model shown in figure 3 is a depiction of the subscales loading on a second order factor that "binds" them together. Results indicate that the three constructs will be used as separate

indicators of school climate and will be treated as such in the analyses to follow, since the second

order factor model had moderate fit indices, whereas fit indices for the first model were better.



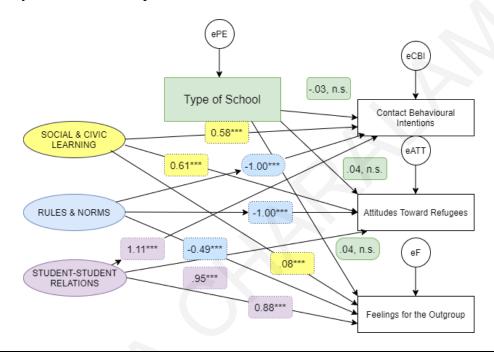
Note: The items of each scale are not presented for readability reasons.

Figure 3. An alternative solution for the structure of the CSCI model – A Second Order Factor Solution

Checking for Main Effects

The 4 predictor variables, i.e. indices of the school climate, namely *Social & Civic Learning, Rules & Norms* and *Student-Student Relations*, along with the *Type of School* were all tested for their possible direct effect as hypothesized in this study, on the three outcome variables (model 1, figure 4). Results are presented in table 19. As illustrated, even though the comparative fit indices satisfy the acceptable criteria (with the exception of CFI>.95), yet the *Type of School* loads very poorly on the three outcome variables (-0.3 on the *CBI*, .04 on the *Attitudes toward the Refugee* and .04 on the *Feelings for the Outgroup*). In addition, beta weights for these three relations are non-significant (p>.05). Furthermore, correlation residuals for *Feelings for the Outgroup* are above .10 in a number of relations with other constructs, suggesting that the model here does not explain the corresponding sample correlations very well (Kline, 2011). *Rules and*

Norms are also an issue of concern, since this scale is highly correlated to *Social and Civic Learning* (r=.84) and to *Student-Student Relations* (r=.82), whilst it also has an unexplained negative correlation to two out of the three outcome measures. This issue will be reassessed in the following analyses, while *Feelings for the Outgroup* will be disregarded from the following analyses that will incorporate mediators.



 $\chi^2(216) = 518.842, p < .001; CFI = .934; SRMR = .047; RMSEA = .046$

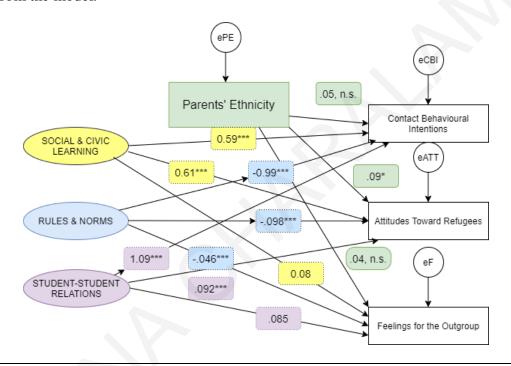
Figure 4. Standardized Estimates of Model 1

A complementary explanation – remark regards the fact that there are standardized effects that come out above ± 1 for the model illustrated in figure 4. Joreskog (1999) shows how standardized coefficients (meaning any estimated coefficient in a measurement or structural relationship in the completely standardized solution where observed and latent variables are both standardized) may be well above or below 1, when the factor analysis from which measures

occurred was based on an oblique rotation, which allows for factors to be correlated. In this situation, factor loadings are in fact regression coefficients, which may be larger or smaller than 1. As Joreskog (1999) argues, standardized coefficients must be between ± 1 , only when they have emerged from orthogonal factor analysis which does not allow for factors to be correlated and in which factors loadings resemble correlations and the factors are standardized. Only in this situation, where factor loadings resemble correlations, standardized coefficients cannot be below or above 1, since correlations vary from -1 to +1. Thus, standardized coefficients that are outside the ± 1 range do not indicate a mistake, even though, as Joreskog discusses, they may suggest a high degree of multicollinearity in the data. In the present study, the three CSCI factors are not very highly correlated as shown in figure 2. However, when the *Type of School* predictor and the three outcome variables are included in the model (as in figure 4), the correlation between *Social & Civic Learning* and *Rules & Norms* becomes very high (r=.87). When *Feelings for the Outgroup* and *Type of School* are removed, standardized coefficients are within the ± 1 range and correlations among the three CSCI scales range from .63 to .81.

Before removing the two variables that seem to cause problems in the model, i.e. *Type of School* and *Feelings for the Outgroup*, another predictor variable was included in the model (as an alternative to *Type of School*), in order to verify whether *Parents' Ethnicity* would have an impact on the three outcome variables, since the *t-tests* had previously shown that *Parents' Ethnicity*, as a grouping variable, impacted a number of the dependent variables and may share part of the variance with *Type of School*. Figure 5 shows the standardized coefficients of this model, along with significance levels. As illustrated *Parents' Ethnicity* did not significantly impact two out of the three outcome variables (i.e. *CBI* and *Feelings for the Outgroup*), while it

only had a marginally significant low effect on *Attitudes toward the Refugees*. In essence, the inclusion of *Parents' Ethnicity* also resulted in standardized effects $>\pm1$, which may be considered to be a reason of concern. Indeed, assessing correlations of *Social & Civic Learning* and *Rules & Norms* resulted in a high correlation (r=.83), and so did *Rules & Norms* with *Student-Student Relations* (r=.82). Upon these results, *Parents' Ethnicity* was also disregarded from the model.



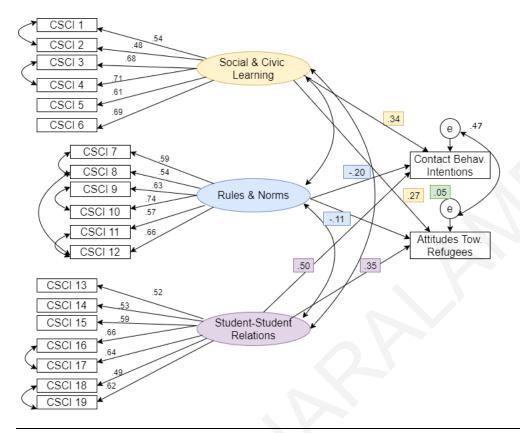
 $\chi^2(216) = 518.210, p < .001; CFI = .934; SRMR = .044; RMSEA = .046$

Figure 5. Standardized Estimates of Model 1a

Summing up, predictor variables *Type of School* and the alternative *Parents' Ethnicity*, as well as the outcome variable *Feelings for the Outgroup* were disregarded from the model which was then rerun with only three predictor variables (model 2, figure 2) and two outcome variables. The remaining school climate indices are considered more specific related to capturing important

differences among schools, since they reflect children's actual perceptions regarding their school's climate, i.e. school norms, social and civic learning and students' relations within the specific school context. On the contrary, the *Type of School* was pre-defined as *Type 1*; schools with very high percentages of Greek students and as *Type 2*; schools with high percentages of students of a non-Greek ethnic background (see Methodology section), hence schools that allow for everyday intergroup (based on the ethnic background) contact. However, this pre-defined variable does not necessarily reflect how children perceive their schools' goals and orientations regarding students' intergroup relations or rules, norms, social and civic learning regarding intergroup contact.

Model 2 is the model that includes the three CSCI scales and the two retained outcome variables. After the removal of the variables mentioned earlier, a number of modifications were proposed and finally added in the model. These concern 3 additional error covariances between items in the CSCI scales and the covariance between the two outcome variables. Direct Effects based on standardized estimates are as follows: the standardized direct effect of *Social & Civic Learning* on *CBI* is .34. The standardized direct effect of *Social & Civic Learning* on *Attitudes toward the Refugee* is .27. The standardized direct effect of *Rules & Norms* on *CBI* is -.20. The standardized direct effect of *Rules & Norms* on *Attitudes toward the Refugee* is -.11, however this is the only statistically non-significant effect (p=.205). Finally, the standardized direct effect of *Student-Student Relations* on *CBI* is .50. The standardized direct effect of *Student-Student Relations* on *Attitudes toward the Refugee* is .35. All direct effects are illustrated in table B1 (please see Appendix B).

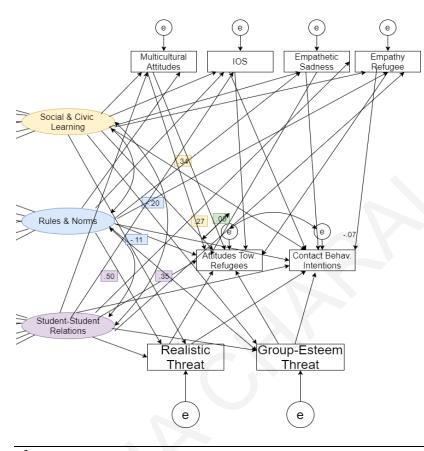


 $\chi^2(174) = 286.405, p < .001; CFI = .973; SRMR = .33; RMSEA = .031$

Figure 6. Standardized Estimates of Model 2

Thereby, based on model presented in figure 4 and having established the direct effects of two out of the three predictor variables (*Social & Civic Learning*, and *Student-Student Relations*) on the retained two outcome variables (*Attitudes toward the Refugee* and *Contact Behavioral Intentions – CBI*), as well as the low statistically significant negative effect of *Rules & Norms* on the CBI outcome only, the mediating indirect effects of IOS, Threats, Empathy and Multicultural Attitudes on the two outcome variables were then added and tested, while the *Rules & Norms scale* raised some concerns regarding its inclusion in the model. Especially taken together with the fact that preliminary analyses had shown that the data of *Rules and Norms Scale* were

severely skewed. Finally, it was decided to retain *Rules & Norms* to see how the inclusion of mediators would impact its effects. This model is illustrated in figure 7 below, along with its associated fit indices.



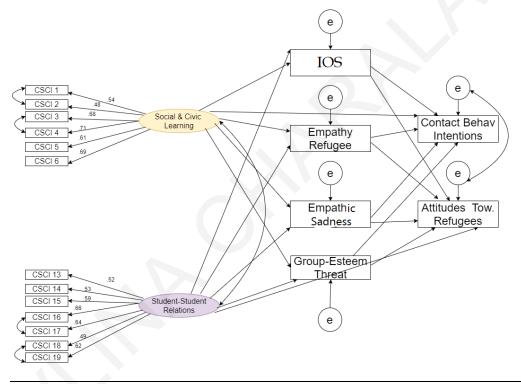
 $x^{2}(288) = 565.628, CFI = .958, SRMR = .036, RMSEA = .039 [.031 - .041]$

Figure 7. Structural Model 2a

Even though Model 2a had acceptable fit indices, there were some problems with it; when attempting to investigate the mediation processes by adding arrows from the three school climate scales directly to the outcome variables the model resulted in negative variances. In addition, there were a few standard errors above the |1| value. These were related to the *Rules and Norms CSCI scale*. Moreover, all residual covariances were below the .10 value and almost all

standardized residuals were below the value of |2|, except for a few CSCI items coming from the *Rules and Norms* scale that had standardized residuals below 2.5.

Upon these results, as well as on the low, negative (and non-significant for one outcome variable) direct effects of the *Rules and Norms* CSCI scale, the scale was finally removed from the model. Based on the parameter estimates the *Realistic Threat and the Multicultural Attitudes* variables were also removed from the model, as they came out non-significant. The revised model (model 3) can be seen in figure 8 below.



*X*²(132)=224.996, *p*=.000 *CFI*=.976 *SRMR*=.032 *RMSEA*=.033 [.025 -.040] *AIC*=340.996 *BIC*=601.546 *CAIC*=659.546

Figure 8. Model 3 (The Proposed Model)

Table 19

Fit Indices of the Models predicting the Direct Effect of the predictors on the combined outcome Measures (Models 1 & 2) compared to the proposed model with the mediators included

Models	Fit Indices										
	χ^2	Df	Р	CFI	RMSEA ,	SRMR	AIC	BIC	CAIC		
1	518.842	216	<.001	.934	.046 [.041, .051]	.047	638.842	908.376	968.376		
2	286.405	176	<.001	.973	.031 [.025, .038]	.033	400.405	656.463	713.463		
3	224.996	132	<.001	.976	.033 [.025, .040]	.032	340.996	601.546	659.546		

As illustrated on table 19, model 3 has satisfactory acceptable fit indices which are improved compared to model 2 (which is a model of direct effects only, with no mediators included), even though the x^2 test is still significant. However, the CFI has increased and SRMR, RMSEA, AIC, BIC and CAIC have dropped. Moreover, the majority of the paths are statistically significant, with the exception of the paths from *Social and Civic Learning* to *Empathy toward the Refugee* (*p*=.053) and of *Group Esteem to CBI* (*p*=.078). However, these results are not complete without considering the indirect effects, through the four mediators; the corresponding results that provide evidence of mediation effects will be shortly addressed. In completing the assessment of the proposed model, we should underline the fact that all standard errors are low; the highest being .158 (please see table B2 in Appendix B). The vast majority of residual covariances are below .10; there are only two values that are still <.15 and only three standardized residual covariances that slightly exceed |2|.

Mediation Effects

The SEM analysis was conducted with the bias-corrected percentile method by also generating the bootstrap estimated two-tail significance on standardized indirect effects. As illustrated in table B2 (please see the Appendix B), the two predictor variables (Social & Civic Learning and Student-Student Relations), significantly predict the two outcome variables (CBI and Attitudes Toward the Refugee). Results regarding the relationship of the two predictor variables to the two outcome variables through the four mediators are presented in table 20 below. According to these results the relationship of Social & Civic Learning to Contact Behavioural Intentions (CBI) is fully mediated by Empathetic Sadness, by Group-Esteem Threat and by Inclusion of Other in the Self, since the indirect effect of the predictor variable to the outcome variable becomes non-significant. No evidence was found regarding the mediating role of Empathy Toward the Refugee between Social & Civic Learning and Contact Behavioural Intentions. Concerning the relationship of Social & Civic Learning to Attitudes Toward the *Refugee*, this is fully mediated by *Group-Esteem Threat*, by *Empathetic* Sadness and by Inclusion of the Other in the Self (IOS), whereas no evidence was found for the mediating role of Empathy Toward the Refugee in this relationship.

Coming to the relationship between *Student-Student Relations* to *Contact Behavioural Intentions*, evidence shows partial mediation of three mediators, namely of *Empathy Toward the Refugee*, of *Empathetic Sadness* and of *Inclusion of Other in the Self*, whereas no evidence was found for the mediating role of *Group-Esteem Threat*. Concerning the relationship between *Student-Student Relations* and *Attitudes toward the Refugee*, evidence indicated full mediation of all four mediators of *Group-Esteem Threat*, of *Empathy Toward the Refugee*, of *Empathetic*

Sadness and of *Inclusion of the Other in the Self.* However, these results are subjected to specific limitations, since and as illustrated in table 20 the effects are not calculated separately for each mediator. What is presented in table 20 below is the total mediating effect of all mediators included in the model, since the specific package (AMOS-version 20) does not distinguish effects through different mediators. What it does then, is to only offer separate information regarding paths from predictor to mediator(s) and from mediator(s) to outcome variables, but the path from mediator(s) to outcome variables(s) is the same for all mediators.

Table 20

Direct & Indirect Effects in the Proposed Path N	Model
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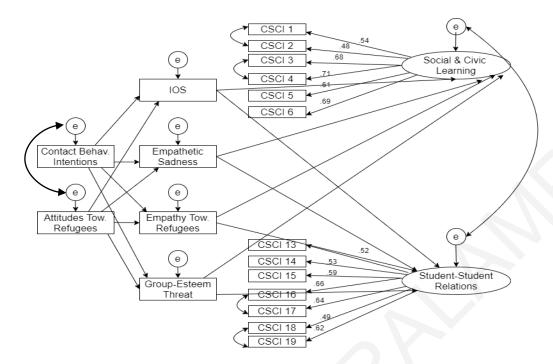
Urmothesis	X to Y	X to Y	X to M	M to Y	Result
Hypothesis	Direct Effect	A to Y Total Effect	Path a	Path b	Result
	Path c'	Path c	r atii a	r aur D	
Social-Emp.RefAtt.Ref	.057(n.s.)	.148**	.113(n.s.)	.136**	NO MEDIATION
Social-Emp.RefCBI	.046(n.s.)	.179**	.113(n.s.)	.082**	NO MEDIATION
Social-Emp.SadAtt.Ref	.057(n.s.)	.148**	.277**	.088*	FULL MEDIATION
Social-Emp.SadCBI	.046(n.s.)	.179**	.277**	.222**	FULL MEDIATION
Social-G-E ThrAtt.Ref	.057(n.s.)	.148**	161*	194**	FULL MEDIATION
Social-G-E ThrCBI	.046(n.s.)	.179**	161*	046(n.s.)	NO MEDIATION
Social-IOSAtt.Ref	.057(n.s.)	.148**	.222**	.353**	FULL MEDIATION
Social-IOSCBI	.046(n.s.)	.179**	.222**	.480**	FULL MEDIATION
STUD-Emp.RefAtt.Ref	.104(n.s.)	.233**	.348**	.136**	FULL MEDIATION
STUD-Emp.RefCBI	.229**	.235**	.348**	082**	PART MEDIATION
STUD-Emp.SadAtt.Ref	.104(n.s.)	.233**	.222**	.088*	FULL MEDIATION

STUD-Emp.SadCBI	.229**	.235**	.222**	.222**	PART MEDIATION
STUD-G-E.Thr-Att.Ref	.104(n.s.)	.233**	295**	194**	FULL MEDIATION
STUD-G-E. ThrCBI	.229**	.235**	295**	046(n.s.)	NO MEDIATION
STUD-IOSAtt.Ref	.104(n.s.)	.233**	.310**	.353**	FULL MEDIATION
STUD-IOSCBI	.229**	.235**	.310**	.480**	PART MEDIATION
		01			-

n.s.=non-significant *=p<.05 **p<.01

Alternative Model

Aiming at verifying the accuracy of the proposed model in study 1 here, i.e. model 3, an alternative model was incorporated and tested. The alternative model is the identical reversed model of the proposed model which assumes that positive attitudes toward the Syrian refugee children somehow pre-exist and positively impact children's empathy, while they also impact the inclusion of the other in the self and reduce perceived Group-Esteem Threat. In turn, the existence of positive attitudes for the Syrian refugee children impacts the school climate by formulating positive appraisals of whatever happens within the school setting. For a comparison between the proposed model (Model 3) and the alternative model please see table 21 below.



 $X^{2}(137) = 409.219, p <.00 \quad CFI = .929 \quad SRMR = .041 \quad RMSEA = .055 \quad [.049 - .061] \quad AIC = 515.219 \quad BIC = 753.307 \quad CAIC = 806.307$

Figure 9. The Alternative Model (Converted of the Proposed Model

Alternative Model Findings

As discussed above, the alternative model is the identical reversed model of the proposed model, i.e. the predictor variables of the proposed model here become the outcome variables. Accordingly, the outcome variables of the proposed model become the predictor variables in this alternative model. As illustrated in figure 8 above, the relevant fit indices are less favourable, compared to the proposed model and CFI is below the acceptable level a priori set (CFI>.95). Another point to be made for the alternative model is that there are many standardized residuals covariances which are a lot greater than the absolute value of 2, the majority of which concern *Empathy toward the Refugee* (the highest being 4.053) and *Attitudes toward the Refugee* (the highest being 4.053)

being 16.198). Thereby, this alternative model is considerably less favourable compared to the proposed model.

Following the establishment of a model that fits the data well and based on the preceding independent-samples t-tests outcomes, the potential moderating impact of the four grouping variables, i.e. *gender, class (grade), type of school* and *parents' ethnicity* must be tested on the proposed model. For this reason, multi-group analyses were performed.

Table 21

Fit Indices of the Proposed Model (Model 3) and of the Alternative Model

Models	Fit Indices									
	χ^2	Df	Р	CFI	RMSEA	SRMR	AIC	BIC	CAIC	
3	224.996	132	.000	.976	.033 [.025-	.033	340.996	601.546	659.546	
(Proposed)					.040]					
Alternative	409.219	137	.000	.929	.055 [.049-	.041	515.219	753.307	806.307	
.061]										

Multi-group Analyses

Using the proposed model (figure 8) as the baseline unconstrained model multi-group analyses were performed to investigate the model fit across different groups created based on *Gender, Class, Type of School,* and *Parents' ethnicity* and also to provide robustness to the proposed SEM model. Thereby, there were four different multi-group analyses conducted to investigate between-group invariance. In order to determine invariance between models, both the

 Δx^2 test and the Δ CFI were assessed i.e. the stricter test (Δx^2) was first assessed and then, if this was significant the less strict criterion (Δ CFI<.01) was evaluated. If outcomes based on both criteria resulted in a significant difference, then the invariance procedure was ended. The four measurement, most reported, invariance steps are: (1) *configural*, equivalence of model form; (2) *metric* (weak factorial), equivalence of factor loadings; (3) *scalar* (strong factorial), equivalence of item intercepts or thresholds; and (4) *residual* (strict or invariant uniqueness), equivalence of items' residuals or unique variances (Putnick & Bornstein, 2016; Byrne, 2010).

Multi-group analysis (Boys / Girls)

The first invariance study was conducted based on children's gender, thereby the proposed model, otherwise defined as the potential baseline model (figure 8), was first tested for goodness of fit for the two groups simultaneously. The simultaneous testing suggested that the proposed model fits the data very well, as shown in table B3 (please see appendix B). In specific, results produced a x^2 value of 371.968 with 264 degrees of freedom (p<.001). The CFI and RMSEA values were .972 and .025 [90% CI: 0.019-0.031] respectively, while the SRMR value was .040. Confirming the invariance of the baseline model for both groups means that the same number of factors and the factor-loading pattern is the same across groups (Byrne, 2010).

Establishing goodness of fit for the baseline model concerning both groups the configural invariance was confirmed. The invariance procedure from this point and on comprises of investigating step by step whether by adding equality constrains, thus becoming stringent and stringent, the difference between these steps remains non-significant. The next model to be tested is the measurement weights model. As illustrated in table B3 (please see appendix B) the model

had very good fit indices with $x^2(287)=401.801$, p<0.01, CFI=0.970, SRMR=.048 RMSEA=0.025 [90% CI: 0.019-0.030] and resulted in a $\Delta \chi^2$ (23)= 29.833, p=.154. Following, the structural weights model was assessed and resulted again in a very good fit to the data; x²(295)=419.582, *p*<0.01, CFI=0.968, SRMR=.048 RMSEA=0.025 [90% CI: 0.020-0.031]. Despite the good fit indices, the chi square difference test came out significant with $\Delta \chi^2$ (8)=17.781, p=.023. However, if ΔCFI is used, then the invariance procedure can move on, since in this case the value of ΔCFI is .002 and if $\Delta CFI < .01$ then invariance can also be assumed, even though this test is less strict than the $\Delta \chi^2$ test, as already discussed above. Moving on to the structural covariances level then, again the model has a very good fit to the data; x²(298)=423.496, p<0.01, CFI=0.967, SRMR=.048 RMSEA=0.025 [90% CI: 0.020-0.031] and this time resulted in a non-significant Δx^2 test; $\Delta \chi^2$ (3)= 3.914, p=.271. The final model to be tested is the measurement residuals model which had also very good fit to the data; x²(322)=482.120, p<0.01, CFI=0.958, SRMR=.050 RMSEA=0.027 [90% CI: 0.022-0.032], but resulted in a $\Delta \chi^2(24) = 58.624$, p=.000, even though ΔCFI indicates even invariance of measurement residuals. The invariance study based on gender revealed strict invariance up to the measurement residuals level, i.e. invariance of factor loadings, error covariances, factor correlations and of residuals. However, this was achieved based on the less conservative ΔCFI <.01 criterion. Overall, the preceding analysis showed that when using Δ CFI, even measurement residuals are equal across the two gender groups, whereas if the stricter $\Delta\chi^2$ test is used invariance can only be assumed up to the measurement weights.

Multi-group analysis (3rd Grade / 5th Grade)

As done earlier, the first step is to establish an acceptable baseline model that when run simultaneously for both groups (this time 3rd and 5th grade students), will result in an acceptable fit to the data coming from the two separate groups. Goodness of fit for the baseline model concerning both groups was confirmed. Likewise, the configural invariance was confirmed. In specific, fit indices were as follows: $x^{2}(264)=356.860$, p<0.01, CFI=0.976, SRMR=.042 RMSEA=0.023 [90% CI: 0.017-0.029]. The next model to be tested is the measurement weights model. As illustrated in table B4 (please see the Appendix B) the model had very good fit indices with x²(263)=356.860, p<0.01, CFI=0.976, SRMR=.050 RMSEA=0.023 [90% CI: 0.017-0.029], while the chi square test came out non-significant; $\Delta \chi^2$ (23)= 28.761, p=.188. Following, the structural weights model was assessed and resulted again in a very good fit to the data; x²(295)=399.257, p<0.01, CFI=0.973, SRMR=.050 RMSEA=0.023 [90% CI: 0.017-0.029], while the chi square difference test came out non-significant with $\Delta \chi^2$ (8)= 13.636, p=.092. The structural covariances invariance test for once again produced very good fit indices with x²(298)=402.829, p<0.01, CFI=0.973, SRMR=.053 RMSEA=0.023 [90% CI: 0.017-0.029] and resulted in a $\Delta \chi^2$ (3)= 3.572, p=.312. The final and stricter model to be tested regards the measurement residuals, i.e. the possibility that even the measurement residuals may be equal across the two groups (3rd grade and 5th grade). Even though the fit indices were again very good, $x^{2}(322)=470.233$, p<0.01, CFI=0.961, SRMR=.055, RMSEA=0.026 [90% CI: 0.021-0.031], the chi square difference test was found to be significant; $\Delta x^2(24)=70.016 \ p<0.01$, as well as ΔCFI (.012), thus indicating that measurement residuals invariance cannot be assumed. Overall, the preceding analysis showed that invariance up to the scalar level can be assumed for 3rd and 5th grade students.

Multi-group analysis (Central Schools / Suburban Schools)

The unconstrained (configural) model produced good fit-indices (please see table B5 in appendix B) when tested simultaneously on both groups with $x^2(264)=371.670$, p<0.01, CFI=0.972, SRMR=.038, RMSEA=0.025 [90% CI: 0.019-0.031]. Invariance of measurement weights was also achieved since the data fit the model well with $x^2(287)=409.571$, p<0.01, CFI=0.968, SRMR=.047 RMSEA=0.025 [90% CI: 0.020-0.031] and even though resulted in a significant $\Delta \chi^2$ (23)=37.901, p=.026 still the Δ CFI value was 0.004. Invariance of the structural weights was again achieved with $x^2(295)=416.475$, p<0.01, CFI=0.968, SRMR=.047, RMSEA=0.025 [90% CI: 0.019-0.030] and $\Delta \chi^2$ (8)=6.904, p=.547. The structural covariances invariance was also achieved based on the ΔCFI . In specific, the data fit the model well; x²(298)=432.077, p<0.01, CFI=0.965, SRMR=.052 RMSEA=0.026 [90% CI: 0.021-0.031], with a significant chi square difference test; $\Delta \chi^2$ (3)=15.602, *p*=.001, but again with a non-significant Δ CFI (.003). Finally, the measurement residuals invariance was tested and resulted in a good fit to the data, as well as in a non-significant ΔCFI ; $x^2(322)=468.553$, p<0.01, CFI=0.962, SRMR=.053 RMSEA=0.026 [90% CI: 0.021-0.031], $\Delta \chi^2$ (24)=36.476, p=.001 and ΔCFI =.003, thereby indicating strict invariance across children attending central (heterogeneous) and suburban (homogeneous) schools.

Multi-group analysis (Immigrant Background / Greeks)

The unconstrained (configural) model produced good fit-indices (please see table B6 in appendix B) when tested simultaneously on both groups with $x^2(264)=379.538$, p<0.01,

CFI=0.970, SRMR=.039, RMSEA=0.026 [90% CI: 0.020-0.031]. Invariance of measurement weights was also achieved since the data fit the model well with $x^2(287)=410.374$, p<0.01, CFI=0.968, SRMR=.043 RMSEA=0.026 [90% CI: 0.020-0.031] and $\Delta \chi^2$ (23)=30.836, p=.127. Invariance of the structural weights was again achieved with $x^2(295)=415.731$, p<0.01, CFI=0.968, SRMR=.043, RMSEA=0.025 [90% CI: 0.019-0.030] and $\Delta \chi^2$ (8)=5.357, p=.719. Structural invariance was achieved, this time based on the Δ CFI. In specific results were as follows: $x^2(298)=427.111$, p<0.01, CFI=0.966, SRMR=.044 RMSEA=0.026 [90% CI: 0.021-0.031] and even though the chi square test was significant; $\Delta \chi^2$ (3)=11.380, p=.010, again the Δ CFI was non-significant (.002). Finally, the measurement residuals invariance was achieved based on the CFI difference test; $x^2(232)=467.369$, p<0.01, CFI=0.962, SRMR=.044 RMSEA=0.026 [90% CI: 0.021-0.031], $\Delta \chi^2$ (8)=5.357, p=.020 and Δ CFI=.004.

Conclusively, invariance tests based on the four grouping variables of the study revealed strong to even strict invariance for all four comparisons when the Δ CFI was used, whereas when the strictest $\Delta \chi^2$ test was used invariance up to the metric level (i.e. configural and metric) was achieved across three out of the four pairs of groups (based on *Grade* structural covariances invariance was achieved based on the $\Delta \chi^2$ test).

DISCUSSION

Study 1 was a cross-sectional study designed to investigate the contributing factors in primary school children's attitudes toward the Syrian refugee children that would probably soon become part of their school life. The scope of the study was twofold; first to identify these factors and

their effect on children's attitudes and second to investigate their combined effect, as these would be included in a SEM that would more comprehensively capture the phenomenon under study. The potential contributing factors to be investigated were chosen based on a pilot study, as well as on the literature on intergroup relations and on prejudice (Zhou et al., 2019; Pettigrew and Tropp, 2006, 2011; Hewstone et al. 2014; Batson et al., 2002). Moreover, the role of gender, class (grade), type of school and parents' ethnicity was investigated first through independent-samples t-tests and then under the invariance studies that followed the proposed SEM which provided evidence of the impact of the above four grouping variables, as well as added robustness to the conceptual SEM model.

Independent samples t-tests

Results from independent samples t-tests suggest that gender, grade, ethnic background and type of school really influence several outcome measures used in this study. Specifically, results suggest that girls, compared to boys, scored higher in the Inclusion of the Other (Outgroup) in the self-measure (IOS), in the Contact Behavioral Intentions (CBI) measure, in the Empathy towards the Refugee Measure and in the Empathetic Sadness measure.

In addition 3rd grade children scored significantly higher, compared to 5th grade children, in the IOS, the CBI, the Multicultural Attitudes, the Feelings for the Ingroup thermometer, the Student-Student Relations, the Rules and Norms and in the Social and Civic Learning scales, whereas 5th grade children, compared to 3rd grade children, scored significantly higher in the Recognition for Need scale, in the Realistic Threat Scale and in the Group Esteem Index, indicating that older children were more likely to have feelings revealing realistic fears, as well

as fears for the ingroup's self-esteem, even though they appeared to be more "informed" or sensible regarding the refugee's needs. However, both in the Realistic Threat Scale and in the Group Esteem Index, 5th grade children may have scored higher, compared to 3rd grade children as a direct effect, but their mean scores in these two measures were below the mean of the scale which is an absolute value of 3. This is an indicator of the overall positivity towards the Syrian refugee children outgroup.

Independent t-test comparisons between the group of children attending heterogeneous schools situated in the center of Athens, compared to the group of children attending homogeneous schools situated in the suburbs, showed that children in the heterogeneous schools scored significantly higher in IOS, Multicultural Attitudes, Attitudes toward the Refugees, Feelings for the Outgroup, Empathetic Sadness (which is considered as trait empathy), in Recognition for Need and finally on the three school climate constructs, namely. Rules & Norms, Student-Student Relations and Social & Civic Learning. However, after conducting an ANCOVA analysis, with *Parents' Ethnicity* as a covariate, results concerning *Multicultural* Attitudes, Attitudes toward the Refugees and Feelings for the Outgroup became non-significant, indicating that differences on these constructs were partly attributed to children's ethnic background. Nonetheless, increased IOS, Empathetic Sadness, Recognition for Need, Social and *Civic Learning and Rules and Norms* were attributed to the unique impact of the *Type of School*, probably reflecting more intercultural orientations in heterogeneous schools. These findings also illustrate the important impact of intergroup contact under organized and supervised within school activities, probably through increased levels of empathetic sadness (trait empathy), as well as through positive perceptions regarding school climate constructs. However, overall

differences between the two types of schools on attitudes toward the refugees as well as empathy toward this specific target group were not identified. This may be attributed to the fact that even though children in the heterogeneous schools have intergroup contact on a daily basis and seem to show increased levels of inclusion of the other in the self, as well as a sensitivity for *Recognition of Needs*, and have increased trait empathy, yet it is difficult to show increased empathy for a specific outgroup they had not encountered with, by the time the study had finished. Taken together with the overall positivity of children in both types of schools, it seams more likely that heterogeneous schools, impact general attitudes of inclusion (*IOS*), as well as of trait empathy toward several outgroups, while they are related to more positive perceptions of school climate.

Even so, children whose both parents are of a non-Greek ethnic background, compared to children for whom at least one of the two parents is of a Greek ethnic background, scored significantly higher in a number of outcome measures, yet not in the two empathy measures. Accordingly, children who's at least one of the parents is Greek scored significantly higher in the Realistic Threat measure, the Group-Esteem Threat measure and the feelings for the ingroup measure. In combination these results may also indicate that increased intergroup contact increases trait empathy and inclusion of the outgroup in the self, as there are more chances for intergroup friendships on the one hand, even though without a specific orientation of the school authorities toward multicultural education (as in the case of intercultural education within the Greek educational system) the merits from intergroup contact are not optimized. On the other hand, a migrant ethnic background seems to facilitate positive feelings for the refugees and more favorable attitudes in general, at least when it comes to primary school children, even though

these do not seem to develop through increased levels of empathy, but rather through increased inclusion of the other in the self. In essence, the more positive perception of the school climate within the heterogeneous schools, is an indicator of how the school climate impacts children's intergroup attitudes.

Results from the independent-samples t-tests partly confirmed hypotheses (a), (c) and (d) since the *Type of School* (ethnically homogeneous vs ethnically heterogeneous schools), after controlling for the impact of children's ethnic background, had an impact on IOS, but not on contact behavioral intentions (*CBI*), or on *Attitudes toward the Refugees* or *Multicultural Attitudes or Feelings for the Outgroup*. Moreover, children in the heterogeneous schools scored significantly higher in the *Empathetic Sadness scale* but not in the *Empathy Toward the Refugee children scale*. Children in the heterogeneous schools also scored significantly higher in two out of the three school climate scales, indicating that they perceived their school climate to be more positive, compared to children attending the homogeneous schools, thus confirming hypothesis (d). Concerning *Realistic Threats* and the *Group-Esteem Threat* measures, no significant difference was found for the two types of schools, even though children in the heterogeneous schools scored schools scored lower on the Group-Esteem Threat, but not significantly lower. Thus, hypotheses (a), (c) and (d) were confirmed, but hypothesis (b) regarding intergroup threats was not confirmed.

Results are indicative of the importance of the heterogeneity of the school population in promoting inclusion of the other in the self, as well as in achieving more positive perceptions of the specific aspects of the school climate as measured in this study, namely a deep appreciation

of social and civic learning, as well as perceptions that the school authorities promote compliance to rules and norms of the school for productive co-existence and sincere interpersonal student-student relations based on the preceding values and norms. Even though differences in Student-Student relations did not reach significance levels, vet children in the heterogeneous school scored higher on this scale too. Results are also in line with the relevant literature, since the ethnic composition of a school has been found to influence the level of social exclusion and intergroup bias shown by children (Killen & Rutland, 2011; Byrd, 2015), and this is attributed to the multicultural character of heterogeneous schools (and the hypothesized increased implementation of intercultural activities), since "multicultural education helps create a school climate that promotes positive attention to cultural diversity" (Killen & Rutland, 2011, p.177). Cultural pluralism rests on an "appreciation for and encouragement of cultural diversity through simultaneously acknowledging cultural differences, promoting cross-cultural relationships, and encouraging the maintenance of the unique cultural identities of groups of students" (Darling-Hammond & Cook-Harvey, 2018, p.19), given that the school policy promotes positive intergroup contact, either officially or through underlying procedures and prevailing norms within the school, which create positive emotional geographies, for instance. Likewise, even though not significantly higher, still children in the heterogeneous schools scored higher in Multicultural Attitudes, Feelings for the Outgroup, Contact Behaviour Intentions and Attitudes Toward the Refugee and significantly higher on the IOS measure, even after controlling for children's ethnicity. In order to examine whether positive attitudes and appreciations of the school climate are to be attributed to the intercultural character of a school, future studies should address the question of how much intercultural a school is, by implementing qualitative measures

of intercultural activities that take place within each school as well as students' and teachers' perceptions regarding the intercultural character of the school.

Coming to the threat's hypothesis, the fact that no significant difference was found between the two types of schools seems to be the outcome of two opposite trends, i.e. two effects cancelling each other. A further investigation within each type of school, indeed, revealed that Greek children within the heterogeneous schools scored significantly higher on the Realistic Threats and the Group-Esteem Threat measures. It may, then, be the case that in heterogeneous schools, threats tend to be higher as Greek children who do not have intergroup contact feel more threatened compared to children in homogenous schools. On the contrary children with contact in heterogeneous schools show less threats compared to children in homogeneous schools. This possibility is in line with Schmid, Al Ramiah & Hewstone (2014) findings in Britain, who showed, in contrast to Putnam's (2006) claim about the negative effects of ethnic diversity within communities (as proposed in the Social Capital Theory), that diversity was in fact beneficial when combined with intergroup contact. In specific, Putnam's Social Capital refers to "connections among individuals, social networks and the norms of reciprocity and trustworthiness that arise from them" (2000, p. 19), which are considered to bind the members of a group together as they share common norms, values and a shared sense of identity that leads to the effective functioning of social groups, facilitates co-operation with similar others and inevitably distinguish them from competing outgroups. Schmid et al. (2014) argue that Putnam, in his studies relied only on the minority/majority proportions, neglecting the very important matter of the actual intergroup contact that takes place within a given context. Schmid et al.

(2014) studies in Britain and Hewstone and colleagues (Hewstone et al., 2014) in Northern Ireland and Britain accounted for the mediating role of positive intergroup contact, which resulted in decrease in social distancing and increased positive attitudes on behalf of the majority toward religious outgroups, as a result of them having meaningful intergroup interactions. Altogether, Hewstone and Schmid found that the diversity of neighbourhoods boosted positive intergroup contact which in turn reduced prejudice and feelings of threats and challenge Putnam's theory of the contrary as found in the U.S.A. context. Thereby, according to the researchers, diversity, under circumstances that enhance intergroup contact, does not increase threats, neither decreases trust, as argued by Putnam (2006). However, the way students are treated in school can also trigger social identity threat, which can affect students-members of disadvantaged or unprivileged outgroups that have been evaluated negatively in society-for example, racial, ethnic, or linguistic minorities; students with disabilities; or others (Byrd, 2015). It is likely that the school staff in a highly heterogeneous school is more aware of their important role as mediators among a heterogeneous population and puts extra effort in promoting principles of equality and inclusion. Accordingly, the heterogeneous schools in this study were all situated in the city center of Athens and most of the population were immigrant children coming from deprived families, living in disadvantaged neighborhoods. Teachers are also aware of the socio-economic background of their students and of the important role of the school climate in mediating these conditions. As White (2018) argues:

"the social environment within schools can play a role in mediating the relationship between children and young people's circumstances and

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educational outcomes. Children and young people attending a school with a positive school climate have been found to do better than might be expected based on their socio-economic background" (p. 3).

It may be the case that teachers in these schools are more preoccupied with aspects of the school life that have to do with creating more meaningful interactions and a more positive school climate, as a form of "counterbalance" to their students' disadvantaged afterschool lives. Despite results here confirming the impact of the school climate regarding intergroup attitudes, a note must be made regarding school identification, which was not assessed in this study. Research evidence shows that the impact of school climate may only operate indirectly, through students' increased degree of identification with the school. Students by merely perceiving the school climate as positive might not be sufficient to activate the influence of school climate on their achievement, whereas school identification is a vital psychological mechanism to activate the influence of school climate on students' wellbeing. Bizumic et al. (2009) and Turner et al. (2014), provide evidence that school identification mediates the impact of school climate on non-academic outcomes, such as well-being and bullying behaviour. Thus, future research should also address students' identification with their school, so as to provide a clearer depiction of how school climate impacts children's intergroup attitudes.

Concerning hypothesis (h) the *Class* (3rd grade vs 5th grade) had an impact on children's intergroup attitudes and intergroup threats. In specific, children attending the 3rd grade scored significantly higher in the *IOS*, *CBI* and the *Multicultural Attitudes* scale, thus giving rise to the assumptions made by the *Social Identity Development Theory* which asserts that younger

children have not yet a strong ingroup identity, meaning that even though they are aware of their group membership, still they do not tend to adhere to ingroup evaluations when judging an outgroup. As Killen and Rutland (2011) discuss, younger children tend to apply moral reasoning when choosing to exclude an outgroup, meaning that they are mostly concerned to be fair, rather than maintaining ingroup's norms of exclusion. Thereby, the fact that they scored higher in the Feelings for the Ingroup thermometer was not considered as such a surprise, since this preference did not impact their attitudes toward the outgroup, but only their appreciation of their "ingroup love" without "outgroup hate". Support to this outcome can be again found in Killen and Rutland's (2011) conclusions of an overview of theories on social exclusion who discuss that ingroup bias is often confused with outgroup dislike, without this being true. The authors argue that it is vital to disentangle this relationship to interpret research outcomes correctly, as well as to help create positive social relationships. In line with the above argument, correlation analyses in this study showed that *Feelings for the Ingroup* did not significantly correlate to any other measure except for *Feelings for the Outgroup*, which was actually a positive one, concerning central schools, and had only a few low significant correlations (.13 with IOS and .14 with CBI) concerning suburban schools.

Third grade children also perceived their school climate more positively compared to 5th grade children and this may be attributed to the fact that younger children tend to value school rules and norms, as well as their teachers' work, more favorably and question them less, while they are more likely to identify more with their school, whereas older children, while growing, become more critical towards adults' rules as they may begin to question the school authorities.

This finding was also revealed in Kyriakides (2020) who found that with age relations of cooperation became stronger, whereas relations of constrain (in Piagetian terms) became weaker. In addition, older children are more capable to participate in communicative exchange that has the potential to lead to challenging, transforming or rejecting dominant representations through projecting or adhering to oppositional representations, what Duveen refers to as resistance (Duveen, 2001), thus challenging the representations of authenticity of the school staff and of the soundness of the school rules and norms. Maxwell, Reynolds, Lee, Subasic and Bromhead (2017) found on their large-scale study, within secondary schools, that grade impacted children's perception regarding Student-Student Relations, Student-Staff Relations and Shared Values and Approach with children of the lower grade scoring higher on these school climate parameters. On the other hand, 5th grade children scored significantly higher in the *Realistic Threat* scale and the Group-Esteem Threat measure. This finding may be attributed to the stronger ingroup identification, which gives rise to feelings of threats coming from the outgroup. Yet, in the present study, Feelings for the Ingroup did not significantly correlate to either measure of threats, thereby the impact of ingroup identification cannot be related to threats. However, the ingroup regarded in the study was that of "children who live in Greece and whose parents are Greek citizens" (see Appendix A). What may be the case concerning increased threats in older children compared to younger children is older children's adherence to the wider ingroup, that is to say Greek adults' ingroup with all the norms, perceived threats and stereotypes that come together. Had the study focused on the wider ingroup, outside the school context with its accompanied rules and norms, e.g. Greek people versus Syrian refugees, the correlation of ingroup identification with attitude and prejudice measures might have resulted in different

outcomes. Finally, the fact that 5th grade children scored significantly higher in the *Recognition* for Need scale may be reasonably attributed to the competency of older children to appreciate other people's situation (a competence predicted by *Theory of Mind*). However, this appreciation is not necessarily translated into positive attitudes or actions, a finding that may be explained by the Developmental Subjective Group Dynamics Theory (Abrams & Rutland, 2008) which focuses on how group identity can not only result in outgroup exclusion, but also in ingroup exclusion (i.e. intragroup bias), when a member of the ingroup expresses ideas and opinions (or behaviors) that deviate from the prevailing ingroup norms. In such cases, the "black sheep effect" takes on for whoever challenges the norms of the group (Killen & Rutland, 2011). Likewise, older children in this study may well enough be in a position to cognitively recognize the unprivileged position of the outgroup, but still be hesitant in openly display obvious positivity toward the outgroup. Regarding the two empathy measures, children of both age groups scored similarly high (4.24 in *Empathy toward the Refugees* and 3.79 on *Empathetic* Sadness for the 3rd grade students and 4.29 and 3.80 for the 5th grade students respectively). This indicates that both age-groups of children have developed the capacity to be in another person's shoes and empathize with him/her.

The role of *gender* and *parents' ethnicity* were also examined even though they were not included in the primary objectives of the study, as set by the original hypotheses. However, the role of gender is traditionally examined, mostly for informative reasons. Gender differences are "in favor" of the girls in the study, since girls scored significantly higher in *IOS*, *Contact Behavioral Intentions (CBI)*, in *Feelings for the Outgroup*, in *Empathy Toward the Refugee* and

Empathetic Sadness. Results support literature in that girls appear to be more willing to adhere to an outgroup in need, since research has shown that females score higher on affective empathy tests (Krznaric, 2015; Batson et al., 2002; Batson, 2010).

Parents' ethnicity on the other hand, is a variable that serves to separate children of a Greek background and those of an immigrant background, thereby an interfering parameter regarding heterogeneous and homogeneous schools. Combined results within each type of school indicate that the type of school effect is mostly attributed to large proportion of heterogeneity, rather than children's ethnicity as such, since within the heterogeneous schools immigrant children and Greek children scored alike on the IOS, the CBI and the Attitudes toward the Refugee measures, i.e. on the attitudes measures, although immigrant children scored significantly higher in the Multicultural Attitudes measure and Greek children scored significantly higher in the Feelings for the Ingroup, the Realistic Threat scale and the Group-Esteem Threat measure. These findings are also supported by the fact that children in the heterogeneous schools scored significantly higher on the school climate measures, i.e. they evaluate their school climate more positively, even after controlling for ethnicity. Thereby, it is proposed that the positive school climate positively impacts outgroup attitudes, probably through increased quality positive intergroup contact. These results become even more important, if we consider the limited intercultural character of the school curricula, as illustrated in the review of intercultural education in Greece. It is argued that had the educational curricula been more inclusive and promoted interculturalism in practice, positive outcomes would be even more profound in the heterogeneous schools. Nonetheless, future studies could also investigate the actual intercultural activities taking place

with each school through teachers' and students' reports, in order to identify the exact mechanisms that promote perceptions of a positive school climate.

Altogether, these findings suggest that even though Greek children appear to exhibit higher feelings of threats and of in-group preference within the heterogeneous schools (probably due to their arithmetic disadvantage, as already mentioned earlier), still this does not impact their attitudes for the Syrian refugee children outgroup. Accordingly, within the homogeneous schools (without considering the age element), Greek and immigrant students only differ on the *CBI measure*, thus indicating that all children, despite their ethnic background, share equal feelings of threats coming from the specific outgroup, as well as show similar attitudes. However, their scores on all positive measures were above the mean score and below the mean score for negative measures.

Results were more revealing when *Grade* was examined as a predictor within each type of school. In specific, within homogeneous schools 3rd grade students of a Greek background did not differ on any of the measures, compared to immigrant students, whereas 5th grade Greek children scored significantly lower on three measures that concern attitudes toward the outgroup. As suggested by the SIDT, with age, children begin to take more contextual factors into account (personal goals, conventional issues, group identity and group functioning) which inevitably changes their priorities, as well as their perceptions of ingroup identity. The content of the 3rd grade students' identity is less linked to ingroup norms as younger children may not be aware of these norms, whereas older children tend to adhere more to ingroup norms as they conceive their centrality for ingroup identity, as well as that they are part of the ingroup's "hard core", meaning

that whoever challenges them runs the risk to be excluded from the group, i.e. the "black sheep effect" mentioned earlier (Abrams & Rutland, 2008).

Within heterogeneous schools, 3rd and 5th grade children displayed higher intergroup fears, compared to immigrant children, but were equally positive towards the outgroup. Findings on threats within heterogeneous schools show that 3rd grade Greek children, due to their arithmetic inferiority within highly heterogeneous schools, may have developed their in-group identity earlier than what the SIDT suggests, thus leading to enhanced feelings related to the Group-Esteem Threat. As Killen and Rutland (2011) argue even when young children understand that prejudicial attitude is unfair, still they often avoid moral reasons in contexts that "appear to be highly salient from a group identity perspective" (p.183). On the other hand, the general positivity (from Greek and immigrant students in the heterogeneous schools) for the outgroup strongly indicates that what accounts for the favorable attitudes toward the Syrian refugee children outgroup is not one's nationality, thus individual characteristics, but rather the multiethnic environment in a heterogeneous school setting, which is also in line with what the Intergroup Contact Theory predicts; the fact that intergroup contact promotes more positive attitudes towards any outgroup via the secondary transfer effect discussed in the literature review section above. However, on the other hand, the fact that children of a Greek background, even when attending a heterogeneous school, still show higher feelings of intergroup threats could be revealing of the importance of the four required conditions (Allport, 1954) for the merits that may derive from intergroup contact to occur, and in this instance the condition of equal status (challenged by Greek students' numerical inferiority). As discussed earlier, in highly diverse

contexts threats may prevail in the absence of quality and substantial positive contact (Schmid et al., 2014). In essence, such threats are more cultivated in older children, and this may explain why younger children were found to be less prejudiced in the present research. In respect to this explanation, Vedder, Wenink, and van Geel (2017) found that the pathway between contact and intergroup attitudes was mediated through the presence of threat perception and intergroup anxiety.

In any case, the fact that children evaluated more positively the school climate within the heterogeneous schools, compared to children in the homogeneous schools, after controlling for ethnicity, may be an indicator of positive contact within the school context. In specific, the *Social and Civic Learning* scale regards issues of proper functioning in everyday interactions between students (e.g. *"in my school, we learn ways to solve arguments so that everyone can be happy with the result* or *"in my school, adults teach me how to show feelings in proper ways"*), as well as issues of empathy (e.g. *"in my school, we talk about why it is important to understand our feelings and the feelings of others*) which both are considered important in achieving positive encounters among children. Future studies should include more measures of school climate, so as to capture the quality and amount of such contact.

SEM Models

The second aim of the study was to propose a comprehensive model that would include the factors which were found to impact children's attitudes and would explain the mechanisms through which this is done. The corresponding proposed SEM model shows that aspects of the

school climate, namely children's perceptions of Social and Civic Learning and of Student-Student Relations positively impact IOS, Empathetic Sadness and Empathy Towards the Outgroup, which in turn impact Contact Behavioral Intentions (CBI) and Attitudes toward the *Refugee*, thus acting as mediators. Likewise, aspects of the school climate negatively impact Group-Esteem Threat, which in turn impacts Contact Behavioral Intentions (CBI) and Attitudes toward the Refugee, again acting as a mediator. In light of these findings, hypotheses (e, (f) and (g) were mainly confirmed. Regarding hypothesis (e) two out of the three perceived school climate scales were included in the model, even though the rejected *Rules and Norms scale* was also found to be significantly correlated (in the expected direction) to all variables in the study. However, due to the strictness of SEM models the scale was rejected when the mediators were included in the model and the combined effects underwent more strict criteria. Regarding hypothesis (f) intergroup threats (Group-Esteem Threat) were significantly negatively related to positive intergroup attitudes (Attitudes toward the Refugee and Contact Behavioral Intentions). The fact that *Realistic Threats* were not included in the final model is mostly attributed to the scale itself, since it is a newly developed scale that has not yet undergone standardization procedures and was developed based on a limited sample of children. However, the Group-Esteem Threat construct that was included in the model is of an exclusively collective nature, one that reflects the very primitive "us" versus "them" rivalry undoubtedly placed by children, especially while the ingroup identification grows stronger. Finally, hypothesis (g) was also confirmed, since Recognition for Need, Multicultural Attitudes, Inclusion of Other in the Self, Empathy Toward the Refugee and Empathetic Sadness were all positively related to Attitudes Toward the Refugee and Contact Behavioral Intentions. However, Recognition for Need and

Multicultural Attitudes were excluded from the final SEM, as the two factors could not conform to the strict criteria set by SEM models.

The final proposed SEM confirms the hypotheses set by this study, even if a number of measures could not be included in the model. The reasons they were rejected are considered to be related mostly to inequities of the scales themselves, since three out of the four scales (Multicultural Attitudes scale, Recognition for Need scale and Realistic Threats scale) that were excluded are newly developed scales designed based on a small-scale pilot study, which presented reliability weaknesses and need to be further processed and developed. Nonetheless and despite the very good fit-indices of the proposed model, still the correlations between the variables in the model, even though statistically significant, are low to medium. In specific the correlations of the Social and Civic scale with the mediators ranged from .16 to .28, whereas the correlations of the *Student-Student scale* ranged from .22 to .35. Accordingly, the correlations of the mediators with the outcome measures were low. The only exception was IOS which was correlated more powerfully with the two outcome measures. For once again, one of the reasons that these relations are not very powerful may be attributed to the measures themselves not being comprehensive enough so as to correlate stronger with more established measures. For example, the Group-Esteem scale and the Empathy Toward the Refugee scale are actually two-item indexes, carrying the weaknesses of scales that have very few items. Likewise, the *Empathetic* Sadness scale was used as a single scale in this study and it may be the case that other aspects of empathy needed to be addressed, (Innamorati et al., 2019; Batson, 2009). It is also true, that the school climate is a more complex multi-dimensional construct than the way it was processed

here. Thereby, having addressed it in a more comprehensive way, it might have resulted in more powerful relations.

Nonetheless, the invariance studies that followed the proposed model added to the robustness of the model, since it proved to fit the data very well in all four invariance studies conducted. Byrne (2010) asserts that Multi-group invariance (MGI) testing is a technique which allows researchers to determine whether parameters of a measurement model and/or the structural model are equivalent (i.e. invariant) across two or more groups. In line with this, Chin et al. (2012) illustrate how invariance across groups establishes the reliability of measurement scales across groups. Likewise, Cheung and Rensvold (2002) argue that invariance testing indicates whether the items used mean the same thing to respondents from different groups or populations, while inability to establish invariance would suggest that differences observed may not be due to true differences, rather they may be attributed to different psychometric responses to the items (Chin et al., 2012). Thereby, invariance testing also provides a particularly strong test of the validity of the measurement model and replicability of the structural model across settings (Chin et al., 2012). Conclusively, without measurement invariance, conclusions based on measurement scales, i.e. the meaning and interpretation of the latent constructs or the determination of differences or equivalences across populations, may be confusing, or even worse, invalid (Steenkamp & Baumgartner, 1998; Malhotra, and S. Sharma, 2008).

In the present study multi-group analyses were based on the four grouping variables used earlier for the independent sample t-tests, i.e. *Gender* (boys and girls), *Class* (3rd grade and 5th grade students), *Type of School* (homogeneous and heterogeneous) and *Parents 'ethnicity (*Greek

and immigrant background). The aim of these analyses was to investigate whether the proposed model is equal across different groups in the study in terms of its structure as well as of the valence of the relations within each group. Results offered evidence of strong multi-group invariance across all groups (and of strict measurement residual invariance for three pairs of groups) which testify to the applicability of the proposed model across demographic characteristics.

Conclusively, the above results show that the latent factors have the same pattern of free and fixed loadings (e.g., those that are estimated by the model and those that are fixed at 0) across groups, i.e. across boys and girls, across younger 3rd grade and older 5th grade children, across two types of schools and across children of a Greek and children of a migrant background. In addition, results are indicative of equivalence of the item loadings on the factors (metric invariance) and of equivalence of item intercepts, for metric invariant items (scalar invariance), i.e. "mean differences in the latent construct capture all mean differences in the shared variance of the items" (Putnick & Bornstein, 2016, p.). Finally, residual invariance was also achieved in all invariance studies, except from the 3rd grade children compared to the 5th grade children. This final and stricter form of invariance indicates that the sum of specific unique variance of an item (that is not shared with the factor) and error variance is similar across groups (Putnick & Bornstein, 2016).

Beyond revealing that the proposed model is group-invariant, the relevant invariance studies also provide the present research with additional merits as they serve as indicators regarding the reliability and the validity of the scales used in the proposed (here referred to as the baseline)

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model. Putnick and Bornstein (2016) argue that measurement invariance assesses the psychometric equivalence of a construct across groups or across time. In this study what was processed was a conceptual model predicting contact behavioural intentions and attitudes toward the Syrian refugee children out of dimensions of the school climate and through the total effect of four mediators, namely of inclusion of other in the self, of empathy (empathetic sadness and empathy toward the refugees) and of feelings of Group-Esteem Threat. Thereby, results provide additional support, not only for the proposed model, but also for the included constructs as appropriately measuring what they are supposed to measure, i.e. construct validity. This is especially important regarding the newly developed Group-Esteem Threat measure included in the model in this study. Hence, evidence of group invariance indicated that the related constructs have similar structure and/or meaning to different groups or on different measurement occasions in the same group, and so the construct can be meaningfully tested or construed across groups or across time (Putnick & Bornstein, 2016). Likewise, the invariance between error covariances in all invariance studies conducted across the four couples of categorical variables reflects further on the validity of these particular items as Byrne (2010) suggests. Taken together with the fact that the equivalence of the factor loadings, the error covariances and the structural means was identified in all the invariance studies presented earlier, provides additional support regarding the reliability of the scales used in the study, as well as the construct validity of the involved constructs and finally, cross-validation of the proposed model.

Contribution of the study, Limitations and Future Studies

The present study revealed the impact of students' perceptions of school climate to their intergroup attitudes toward the Syrian refugee children and intentions for contact with the target outgroup. The findings have consolidated the importance of school climate for prejudice reduction as indicated by positive attitudes toward the Syrian refugee and increasing intentions for intergroup contact. Overall, this study provided support demonstrating that school climate through its impact on empathy, threats and inclusion of other in the self is a core variable that has the power to augment students' representations for the refugee outgroup.

The study introduces a variety of innovations regarding research on prejudice in childhood. First of all, it offers a new perspective by engaging aspects of the school climate with prejudice and social exclusion within the school context. In doing so, it opens a new promising avenue in the field of prejudice development among children, since other studies that deal with the school climate have not so far systematically look into its relation to issues of exclusion, prejudice, empathy induction and threats reduction toward the refugee outgroup. This study included only limited aspects, or dimensions, of the school climate, yet still it showed its potentials as a construct in the study of prejudice among children. Future studies may investigate the role of *Type of School* (in conjunction to other potential distal predictors) and its impact on more school climate constructs, thus investigating the potential mediating role of the school climate can be example is illustrated in Appendix B (*Figure B2*). Furthermore, the role of the school climate can be examined in a more comprehensive manner in future studies, taking account of the way the school staff and parents evaluate it and consider a variety of other possible associates in the field

of prejudice development. It would, for example, be interesting for future studies to test the effect of discrete sub-factors of school climate. Testing their corresponding roles on intergroup attitudes may highlight more precise areas for improvement (e.g., offering opportunities for active engagement of children and their families, i.e. promote norms for broad participation in school life, so as to achieve increased identification with the school). In addition, future studies could incorporate not only self-reported measures, i.e. explicit measures of attitudes, but more meaningfully, implicit measures of prejudice and of outgroup attitudes, which are less dependent on conscious awareness (Rutland, 2004), so as to rule out social desirability issues, which may impact children's answers.

Investigating the prevalent intergroup relations and cross-group friendships more thoroughly is also an issue that must be addressed in future studies, since research has shown that diversity alone does not guarantee intergroup friendships in educational settings (Dixon, Tredoux, Durrheim, Finchilescu & Clack, 2008; Schachner, Van de Vijver, Brenic & Noack, 2016). In other words, it may be the case that voluntary contacts between students from different ethnic groups are not that usual, even in highly heterogeneous schools (Al Ramiah, Schmid, Hewstone & Floe, 2015) and negative forms of contact, along with no support from the school authorities can even foster prejudice and social exclusion (Spiel & Strohmeier, 2012). Thus, one limitation of the present study is that no measures were used to assess the quantity or quality of intergroup contact incidences or of cross-group friendships, rather the study merely relied upon the fact that children from diverse groups within the heterogeneous schools are more likely to interact and have more possibilities to create cross-group friendships, as opposed to children attending highly

homogeneous schools. Likewise, the degree of "interculturality" of the school should be also addressed in future studies, since heterogeneity does not readily translate into intercultural curricula. This also highlights the necessity for in-school interventions that purposely promote quality structures intergroup contact.

Future studies could accordingly assess different levels of schooling like perceived aspects of the school climate in secondary schools, as a possible contributing factor of juveniles' intergroup attitudes. Despite the novelty of engaging the school climate (in primary schools) with research on prejudice, the present study left unassessed other important variables that need to be addressed in future studies, like for instance the socio-economic background of the students, parents' education and parents' occupation. In addition, there was no control over how much access students had in media reports regarding the refugees, and this variable may have confounded the results (Leibkind et al., 2018). For example, parents' reports of the family's and children's degree of media consumption may be also included in the model in future studies. Likewise, future studies could include more covariates that have been known to influence intergroup attitudes, such as students' individual degree of identification with the ingroup, when ingroup membership is salient, or parent's political orientation, etc.

Anyhow, even with the limitations discussed above, the importance of *Social and Emotional Learning (SEL)* within schools, thereby of the school climate as a vehicle that promotes such learning, was highlighted in this study and this important finding must be further communicated to policy makers and people who deal with the development of the school curricula. Existing research evidence in favour of the incorporation of Social Emotional Learning indicates that formal programs teaching SEL in primary and secondary schools have shown considerable

success and advances in students' social and emotional skills; attitudes about themselves, others, and school, social and classroom behaviour, and even test scores and grades (Jones, Greenberg & Crowley, 2015). Altogether, since school climate is malleable (Wang and Degol, 2015), as social and emotional skills are (Farrington, 2012), interventions could modify and improve school members' perceptions of school climate in order to impact students' prejudicial attitudes, as well as their intentions for intergroup contact, optimally, even their intergroup behaviours. In addition, educators should incorporate intentional development of these malleable skills, traits, strategies, and attitudes in conjunction with the development of content knowledge and academic skills (Farrington, 2012).

Another issue to address is the fact that some of the constructs (and their associate measures) studied in the field of prejudice among adult populations have been also used interchangeably in studies with children. Accordingly, intergroup threats even though thoroughly studied in the adults' world, yet they haven't been sufficiently studied in children, thereby there are no suitable measures that consider children's developmental level. The innovation of the present study is that it alleviated this maladjustment by using a pilot study to investigate whether primary school young children express fears coming from intergroup threats and if so, to investigate their nature. Findings of the pilot study showed that children younger than 10 years of age tend to express fears that resemble realistic threats considerations, but not fears stemming from symbolic type of threats. Moreover, the realistic threats expressed by children in the pilot study qualitatively differed from those expressed by adults, with younger children articulating more naïve out of context considerations and fears and older children expressing more sophisticated fears of threats

which may reflect adults' discussions or information coming from the media. Likewise, children of this age (around 10 years of age) expressed their concerns regarding the refugee's welfare, and this finding is very promising since it shows on the one hand that children can recognize someone else being in need and on the other hand it gives rise to the necessity to promote social emotional learning within schools to convert this knowledge into empathy for an outgroup in need.

With regards to the newly developed scales though, there are certain limitations that must be addressed here. For one, the pilot study upon which the scales were developed was based on a small sample coming from an ethnically heterogeneous school; thereby results may have been different if they were based on a larger, more variable sample (e.g. including children from ethnically homogeneous schools as well). Additionally, the *Realistic Threat scale* had a low reliability value (*alpha=.58* and ω =.58) and the two items on the Group-Esteem Threat correlated moderately (*r*=.39), indicating that the measures need to be revised and probably extended. Future studies need to investigate children's intergroup fears and feelings of threats on a much larger scale, including different types of schools situated in different areas (rural and urban).

The same argument as above holds for some other scales in this study, i.e. that constructs should be addressed / or assessed based on the developmental level of the target population, thus current measures should be altered accordingly, based on pilot studies or on confirmatory factor analyses with children samples. Especially constructs with more abstract definitions should not be regarded as having a universal meaning across different age groups or across different ethnic

groups. The present study adopted this idea, since all scales were factor analyzed to conclude on their final structure and content. Regarding empathy and the way it was assessed through two scales that addressed two very specific aspects of empathy, namely *Empathy toward the Refugee* and Empathetic Sadness a remark regards their length. Empathy toward the Refugee was assessed based on Turner and Brown's (2008) 2-item index as incorporated in the study of primary school children's attitudes toward Refugees, which was also used by Vassilopoulos et al. (2020) in their prejudice-reduction, classroom-based group intervention with primary school children in Greece. Using a 2-item index was chosen on the criterion of reducing the time needed to complete the questionnaire (as indicated by the authorities who provided the researcher with access within the Greek public schools). However, the narrowness of this measure may have impacted the proper assessment of children's empathy toward the refugee. Concerning Empathetic Sadness, de Weid et al. (2007) showed that the scale includes items common to girls and boys of all ages and could, therefore, be used to examine gender differences and age trends in empathetic sadness across childhood, adolescence and young adulthood. However, and despite its broad applicability, according to de Weid et al. (2007) the scale needs to be enlarged with items covering a broader range of emotions to create a more comprehensive and valid measure of affective empathy, like for instance a measure of the responsiveness to another person's sadness. Therefore, future studies need to assess empathy with more intellectual measures that would capture one's empathy more systematically. To complete the discussion regarding the limitations of the measures used in the present study, it is very important to come up with measures that will be both measures of parsimony, i.e. less time consuming and more informative, since research with children is more challenging.

Another important limitation of the present study is that it only implemented quantitative measures, which even though offer statistical power and the perspective of the generalizability of the results, they fail to provide justification or reasoning regarding children's attitudes and decisions to exclude (i.e. moral reasons or social conventional reasons, according to Killen and Rutlan, 2011). In other words, the study does not provide answers to the relevant whys, e.g. "why does a child decide to avoid intergroup contact", "why does a child feel closer to the outgroup, compared to another child, member of the same group?" Qualitative data are far more informative and it may be difficult to correspondingly address the hidden aspects of what constitutes a school culture, for instance, by incorporating quantitative measures only. Future studies could more appropriately mix qualitative and quantitative measures to offer a more holistic depiction of the puzzle of prejudice amongst children and its contributing factors. Accordingly, more potential contextual factors could be considered, like e.g. the impact of the media on social representations, either as mediators or moderators in the relationship between those factors and prejudice.

The present study has an important theoretical contribution to make within the fields of social psychology and that of education. In specific, a conceptual model is proposed, a SEM model with all its associated merits (imputation of the standard errors, instead of ignoring them as in regression analyses, and stronger implications for causal relations in correlational designs) which signifies the relationship between aspects of the school climate, as perceived by the children, and intergroup attitudes and contact behavioral intentions, through the mediating role of perceived intergroup threats, of empathy and of the inclusion of the other in the self. The use of the *Contact Behavioral Intentions (CBI)* measure is also important, since most studies examine

people's prejudicial attitudes and feelings toward refugees and migrants, instead of intentions, even though these are considered to be closer to people's actual behavior, as research has shown (Yitmen & Verkuyten, 2018). However, a limitation of the mediation analysis in the path model here is that it does not account for the specific indirect effect from each mediator separately on each outcome variable, rather it only accounts for the accumulated impact of all mediators simultaneously. Furthermore, had the study implemented more schools with more students from each school, would allow for multilevel analysis which is considered more appropriate to incorporate, given that the data were nested.

Conclusively, the present study addresses primary school children's attitudes towards refugee children, in a time where such intergroup contact occurs worldwide, due to the war situation in Syria and elsewhere and in doing so it highlights the role of the school climate as it impacts intergroup attitudes and intentions for action. Indicating how this is achieved (i.e. via the mediators in the model), it raises attention toward the importance of the school climate in reallife situations. Finding ways to promote positive school climate seems to be of paramount importance, not only for academic achievements, but also for promoting productive intergroup relations, ultimately for reaching the goal of successfully integrating all children within schools.

Nonetheless and similar to most of the school climate research, this study was neither longitudinal nor experimental, hence it does not allow for strict causal inferences to be made, even if a more sophisticated design was implemented. Thereby, study 1 was followed by study 2 which opt for examining causal relationships with a quasi-experimental intervention, based on a longitudinal design. Study 2 was designed first to experimentally verify part of the outcomes of the preceding study (study 1), by manipulations related to intergroup contact and to empathy

induction and second to put the outcomes of study 1 into a real-life setting, i.e. into a primary school. The design of study 2, along with the analyses, the results and the discussion of the results is presented in the next chapter.

CHAPTER 4: STUDY 2

Abstract

Despite the urgent need for promoting positive intergroup relations in schools, and although prejudice-reduction interventions in schools based on indirect contact have been conducted for years, they have all been carried out by researchers themselves (Liebkind et al., 2018). Let alone the fact that they are usually limited to one-day, one-time interventions, thereby producing results which lack credibility in terms of persistence, after the intervention finishes (Hewstone, et al., 2014). Moreover, the majority of the designs are not experimental, thus the attained knowledge is limited to mere implications regarding causal relations and their direction (Hewstone et al., 2014). Yet, since childhood and adolescence are critical developmental stages for the formation of attitudes for the outgroup (Schiefer et al., 2010), the important role of schools in shaping future intergroup relations is apparent.

Study 2 is a quasi-experiment based on the classical pre-test, interaction, post-test (immediate and delayed) design with a control group (Shadish, Cook & Campbell, 2002). The study is an intervention within a public primary school in Athens which aims at creating controlled intergroup contact conditions, through empathy inducing activities of co-operation with a child-sized puppet possessing the identity of a newcomer classmate who comes from Syria and he is a refugee (intervention 1). In this group (intervention 1), the child-sized puppet has an active presence. Children in the intervention 2 group are merely exposed to the outgroup puppet who is physically present in the classroom, but has no "interaction" with the classroom, rather a passive presence. Thereby, the experiment involves two experimental groups (intervention1, intervention2) and a control group for grade 3 and grade 5 respectively. Contact

conditions (contact through empathy inducing activities for the Intervention 1 group, mere exposure, but no actual contact for the Intervention 2 group and neither contact or exposure to the outgroup for the control group). For the two intervention groups an empathy inducing narrative regarding the puppet's life was read at the beginning of the intervention, in order to provide the children with information regarding the identity of the "new classmate". The specific program that the three groups went through is shown in table 22.

The research design incorporates measures at three distinct times, i.e. T1 (pre-measures), T2 (immediate post-measures) and T3 (late response-measures, 6 months after). Results show that contact with the puppet improved children's outgroup attitudes toward the refugee, through inducing empathy, inclusion of the other in the self and a reduction in feelings related to threats posed by the refugee to the (*In-)Group-Esteem*. Results were more favourable in the intervention group that had contact and empathy-inducing activities with the puppet. Most importantly, there were indications that some of the positive outcomes lasted in time, i.e. 6 months after the intervention had finished, while there were also indications of the buffering effect.

Key words: contact with a puppet, intergroup threats, empathy, IOS, prejudice

Aim of the Study & Hypotheses

Following the outcomes from study 1, study 2 was designed in order to put what study 1 revealed into a real-life framework, in other words to experimentally cause intergroup contact and test whether increased empathy and decreased feelings of intergroup threats may lead to improved attitudes toward the Syrian refugee children outgroup and whether any alteration would last in time. In addition, the study implemented a behavioral measure to address a crucial

consideration raised by social psychologists, that is to say the issue of whether attitude changes translate into actual behavioral positivity.

Some of the most important outcomes revealed from comparisons between groups in study 1 showed that score on most measures, namely all three measures of the school climate (Rules & Norms, Student-Student Relations & Social & Civic Learning), Multicultural Attitudes, IOS, Empathetic Sadness, Attitudes toward the refugee and Feelings for the Outgroup, were positive for the students that attended the ethnically heterogeneous central schools of the study, whereas children of a Greek background appeared to have higher feelings of perceived threats (Realistic and Group-Esteem Threat). Likewise, younger children (3rd grade) also perceived the school climate to be more positive than older children did and had more positive attitudes and intentions toward the Syrian refugee outgroup, whereas older children significantly scored higher in the threats scales. These findings are indicative of the basic assumptions upon which study 2 was designed; first the notion that children in central schools, where the school population is ethnically heterogeneous (with very low percentages of Greek students) have the opportunity to have intergroup contact, i.e. contact with children from several ethnic groups and through the secondary transfer effect described in the literature review in chapter 1, this contact may expand in groups of people that have not yet come across with. Second, the assumption that children that constitute the ethnic ingroup, i.e. Greeks, show increased feelings of threats, compared to children of an immigrant ethnic background, which increases with age. Even though, the type of school "did not finally make it" (for reasons that may be more methodological rather than content-related) and was not included in the final SEM model presented in study 1, still these

statistically significant "observations" can potentially prove to be very influential in the equation of how empathy, threats and prejudice are related.

Thereby, the second part of this thesis (study 2) was an intervention that aimed at creating intergroup contact conditions between two age groups of children (3^{rd} grade and 5^{th} grade students) attending a relatively ethnically homogeneous public elementary school in Athens and a puppet of a certain pre-ascribed identity, namely that of a Syrian refugee child. The reasoning for study 2 is to incorporate ideal intergroup contact conditions, with minimum exposure to intergroup threatening situations for the ingroup and by doing so to promote empathy toward the outgroup.

Table 22

Intervention 1 Group	Intervention 2 Group	Control Group
empathy induction activities of	normal schooling activities of co-	normal schooling activities as in
co-operation with the puppet	operation conducted in groups of	the intervention 2 group
	children but not with the puppet,	
Active participation of the puppet	Passive presence of the puppet	No puppet
with the help of the rest of the		
classroom by either holding him		
in order to participate in the		
activities or by pretending asking		
for his opinion		

Activities and conditions within each group in study 2

The intervention is built on a quasi-experimental logic. Quasi-experiments differ from "true" experiments in a critical manner; they lack random assignment. In another view of what constitutes a quasi-experiment Campbell & Stanley (1963) argue that:

"There are many natural settings in which the research person can introduce something like experimental design into his scheduling of data collection procedures (e.g. the when and to whom of measurement), even though he lacks the full control over the scheduling of the experimental stimuli (the when and to whom of exposure and the ability to randomize exposures) which makes a true experiment possible. Collectively, such situations can be regarded as quasiexperimental designs (p.34).

Due to the fact that in quasi-experiments the researcher has less power over fully controlling the experimental conditions, the researcher is obliged to be a lot more disciplined when designing the experiment, so as to enumerate and accordingly rule out as many alternative explanations (concerning the research outcome) as possible (Shadish, Cook & Campbell, 2002). As Shadish et al. (2002) argue "as the number of plausible alternative explanations increases, the design of the quasi-experiment becomes more intellectually demanding and complex, especially because we are never certain we have identified all the alternative explanations" (p.15). In this way, quasiexperiments are subjected to falsification procedures, since after establishing a causal claim, the researcher has to carefully examine all other possible explanations that inevitably could falsify the original claim. Nonetheless, Shadish et al. (2002) argue that such "studies of causal hypotheses can still usefully improve understanding of general trends despite ignorance of all the contingencies that might pertain to those trends" (p.17).

The present study implemented an Untreated Control Groups Design with dependent Pre-test and Post-test Samples. Using pre-tests along with control groups in quasi experimental designs is a good way to overcome some of the pitfalls connected to quasi experiments, since the use of

carefully selected comparison groups facilitates causal inference from quasi-experiments. However, such control groups may prove to be of insignificant benefit, unless they are also accompanied by pre-test measures taken on the same outcome variable as the post-tests. Such pre-tests inform the researcher about how the groups being compared initially differ and thus, highlight the higher probability of some internal validity threats being operating over others. In other words, the joined use of a pre-test and a comparison group makes it easier to examine certain threats to validity. Accordingly, due to the fact that "the groups are nonequivalent by definition, selection bias is presumed to be present. The pre-test allows exploration of the possible size and direction of that bias" (Shadish, Cook & Campbell, 2002, p.138) but only with regards to the specific outcome measures of the questionnaire. However, the groups may differ in a number of other ways (e.g. socioeconomic status, average achievement, or differences attributed to them being taught by different teachers with a different teaching style etc.). Hence, results from quasi experiments must be always interpreted with caution.

Having in mind all the above considerations, the intervention implemented in study 2 aimed at investigating a number of hypotheses. These are explicitly stated below.

- a) Contact with the puppet and mere exposure to the puppet (intervention 1 & 2) will positively impact empathy towards the refugee and empathetic sadness.
- b) Contact with the puppet and mere exposure to the puppet (intervention 1 & 2) will reduce feelings of intergroup threats.
- c) Contact with the puppet and mere exposure to the puppet (intervention 1 & 2) will positively impact *Inclusion of the Other in the self* and *Contact Behavioral Intentions* (*CBI*) with the targeted outgroup, as well as *Attitudes toward the Outgroup*.

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- d) Contact with the puppet and mere exposure to the puppet (intervention 1 & 2) will positively impact behaviors toward the Syrian refugee children outgroup.
- e) Contact with the puppet along with empathy induction activities (intervention 1) will have more profound impact with regards to what hypotheses a, b, c & d above suggest, compared to the intervention 2 group (mere exposure to the puppet).
- f) Positive outcomes on empathy, intergroup threats, IOS, CBI, Attitudes toward the Refugee and actual behaviors toward the Syrian refugee children will be expected to emerge for both age-groups of children in the two intervention groups. However, based on the outcomes from study 1 and if 5th grade children are more likely to adhere to unfavorable ingroup norms for the outgroup, as the SIDT suggests, it is expected that younger children will exhibit overall more favorable attitudes, contact intentions and reduced threats compared to older children at all time points (pre, post and late measures).
- g) Inclusion of Other in the Self, Empathy toward the Refugee, Empathetic Sadness and Group-Esteem Threat will mediate the relationship between intervention and Attitudes toward the Refugee, as well as between the relationship between intervention and Contact Behavioral Intentions (CBI).
- h) Any emerging positive outcomes on *Attitudes, IOS, CBI, Empathy and Group-Esteem Threat* are more likely to be still present six months after the intervention finishes, at least for the intervention 1 group, which combines interaction (intergroup contact) with the outgroup along with empathy inducing activities. Empathy is of both a trait nature and a state nature. It is hypothesized that state empathy will be influenced with the potential of that change to last in time. Additionally, children in the intervention 1 group get to handle

the puppet, thus leading to an active presence of the puppet, thereby are more likely to identify and empathize more with "him".

Methods

Participants

The participants in study 2 were 3rd grade and 5th grade students drawn from a relatively ethnically homogeneous school (65-70% Greek students) situated in one of the suburbs of Attica. The specific school was chosen based on the fact that a) the majority of the students were of a Greek background and b) that at the time that the 2nd study took place, there were no Syrian refugee children attending the school. In addition, the specific school was chosen since convenient access was assured and the number of classes for the 3rd and the 5th grade was ideal; There were three participating 3rd grade classrooms and three participating 5th grade classrooms, i.e. the control group-classroom, the intervention 1- classroom and the intervention 2 - classroom for each grade. Assignment of the classrooms to each condition was random. The total final sample (after parents' consensus was granted) consisted of 83 students (44 boys and 39 girls). However, this number dropped to 73 (39 boys and 34 girls) as during the late re-assessment phase, which took place in the following school year, 5 of the children had changed schools, 3 of the children could not be identified to their pre and post measures and two children were absent on the day that the late-measurement phase took place. After discussing with the schools' administrator, it was decided not to disturb the school any further. Thereby, the final sample consisted of 73 children. From these, 35 students attended the 3rd grade and the rest 38 attended the 5th grade, while 23 participated in the intervention 1, 24 participated in the intervention 2 and 26 participated as control groups (please see table 23).

Table 23

Gender	3 rd grade		5 th grade		Total
	Girls	Boys	Girls	Boys	
Intervention 1	4	8	5	6	23
Intervention 2	5	7	5	7	24
Control Group	6	5	9	6	26
Total	15	20	19	19	73

Number of participants as a function of gender and school grade level

Procedures

The experimental - intervention part of the study was a 4 week contact program, with a "fictitious classmate", i.e. a child-sized puppet that was given a specific identity, namely that of a Syrian refugee boy of the same age as "his" classmates (to see the puppets please see Appendix 6). The teachers read aloud information about the new "classmate" (to see the identity of the puppet please see appendix D). The children were told that the new "student" was going to stay with them for a while. They were asked to treat "him" as a real human boy and as normally as possible. The reason for choosing to use a boy-puppet, instead of a girl-puppet was based on findings indicating that girls are more easily perceived as potential victims of bullying within the primary school context (Brown & Bigler, 2004); similarly, other reports also reveal that girls are more likely to be victimized within the primary school context (Wolke, Woods, Stanford & Schulz, 2001; Veenstra et. al, 2005). Having in mind the already potentially negatively charged identity of a refugee child, the researcher did not want to burden this identity any further, so

choosing a boy, instead of a girl, was considered to be more appropriate. The puppet was given a specific seat in the classroom.

Experimental Condition 1 – Contact and Activities

In the first experimental condition of the intervention the puppet was first presented through an empathy inducing narrative of its difficult life up to that day (please see appendix D). Additionally, the puppet in the Intervention 1 group "participated" in a number of pre-designed activities, within the context of a curriculum course called Flexible Zone "Evelikti Zoni" (a course that provides content flexibility and is usually implemented through a number of group activities within the classroom). The puppet's participation was achieved with the help of a different group of children each time, i.e. a group of four children held the puppet and imitated its voice or carried it along each activity. In general Intervention 1 aimed at creating co-operation conditions in order to reinforce contact with the puppet through empathy inducing pre-designed activities (to see the activities please see Appendix D). The puppet had no other participation during all other in-classroom courses and activities. The puppet was only present, sitting on "his" chair "watching" the class. Every week the puppet changed seats and sat with a different group of children, in order for "him" to be seated near to every group of children in the classroom, before the end of the 4-week intervention. Finally, the puppet was not allowed to be taken outside the classroom during recess time.

Experimental condition 2 – mere exposure to the puppet (physical in classroom presence)

In the second experimental condition of the intervention the puppet was again first presented through the same empathy inducing narrative. After the teacher read aloud about the new "student" the puppet was only present in the classroom, had "his" seat, but had no other

participation. Hence, the puppet was only present, sitting on "his" chair "watching" the class. In general, children participating in intervention 2 only had mere exposure (no form of contact) to the outgroup (the puppet). Every week the puppet changed seats and sat with a different group of children, in order for "him" to be seated near to every group of children in the classroom, before the end of the 4-week intervention. Accordingly, the puppet was not allowed to be taken outside the classroom during break time.

Control Groups

Children in the two control groups (classes) had no contact with the puppets and received no specific directions, nor did their teachers. Thereby, they continued with their normal schooling program.

The teachers of the four participating "intervention" classrooms (see figure 10 below) were accordingly guided by the researcher, in order to comprise similar methodology and similar activities during the intervention course, i.e. allow the participation of the puppet through the pre-ascribed activities in the Intervention 1 groups and allow for mere exposure to the puppet while following their normal schooling program in the intervention 2 groups. The course occurred once a week, but the "fictitious classmate" was present at all times in the classroom, even though no structured attention was drawn upon "him" during other courses. Students attending the other two classrooms of the specific school that did not participate in the interventional conditions of the study, i.e. one fifth grade and one third grade in this school were considered as the control groups of the study. As already mentioned earlier, each classroom was randomly assigned to each condition. Even though the groups were not pre-equalized in any systematic way (other than age, area they lived and type of school), between groups comparisons

revealed that there were also no differences regarding gender proportions between the groups. However, children were not matched in a number of other factors like SES, average of achievement, parents' political orientation, etc.

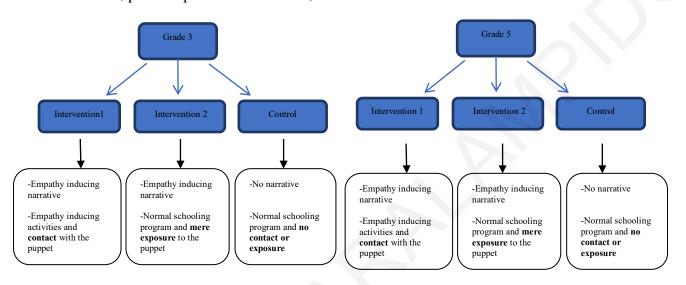


Figure 10. The structure of the experimental design

Measures

Measures regarding the intervention part of the study were administered in three subsequent occasions, i.e. before the intervention took place, one week after the intervention had finished (i.e. in 5-weeks-time) and six months later as a late response measure (see figure 11). Students participating in the intervention study, as well as students from the control groups were asked to complete a questionnaire in late April 2018 (*T1*, pre-measures after Easter school holidays), then again after a 4-week period (*T2*, post measures, in the week after the intervention had finished) and finally, 6 months later (*T3*, *late-response measures*). The scales in the questionnaire were the same as in study 1, with the exception only of the CSCI scale that was removed in study 2, since the variable *School Climate*, was not of interest for the purposes of this study (please see

Appendix C). In particular, study 1 showed that what differentiates the way children perceive their school's climate is the type of school they attend, i.e. central heterogeneous vs suburban homogeneous schools. Since study 2 took place in a single school, using this variable was considered obsolete and time-consuming and as already mentioned above, the Greek authorities that provided the relevant permission to conduct study 2 were highly concerned regarding time management, hence removing the scale allowed to add a final measure that regarded only study 2; the late response questionnaire included an additional measure aiming at revealing actual favorable behaviors towards the refugee (please see Appendix D). This measure was linked to the intervention study only and was addressed to all children participating in study 2. Cronbach's alpha and correlations between the scales are presented in table 24.

Table 24

	CPRT	G-E	CRN	Multicult.	Attitudes	Empathetic	CBI	r
		Th.		Attitudes	Refugee	Sadness		Emp.1,2
Pre (Time1)	.61	.60	.79	.74	.87	.65	.93	.27*
Post (Time2)	.68	.76	.74	.79	.91	.79	.94	.26*
Late (Time3)	.62	.56	.78	.77	.90	.67	.94	.34**
Study 1	.58	.56	.67	.73	.77	.71	.92	.41*

Cronbach's alpha for the scales in study 2

CPRT=Children's Perceived Realistic Threats Scale, CRN= Children's Recognition for Need Scale, CBI=Contact Behavioural Intentions (By Cameron and Rutland, 2006)

Time Period	Type of Engagement
late April 2018	Pre-Questionnaires (Time 1)
May 2018	4-weak intervention (4 x 45')
June 2018	Post questionnaires (Time 2)
December 2018	Late Response Questionnaires (Time 3)

Figure 11. Timeline of the intervention part (Study 2)

Missing Data

Missing data did not exceed 5% for any of the items; the highest being 4.8% for the *empathy2* item. Little's MCAR test indicated that the data were missing completely at random, $\chi^2 = 91.611$, p = .293 for all scales on the pre measures phase (time1), on the post measures phase (time 2), $\chi^2 = 55.029$, p = .691 and on the late response measures phase (time 3), $\chi^2 = 31.692$, p = .581, thereby missing data were resolved using the expectation maximization (EM) method, so as to conduct a complete case analysis and any missing data were imputed based on the mean substitution method.

Data Analysis & Preliminary Analysis

Data were analyzed via the SPSS statistical package, version 25. Preliminary analyses were first conducted on the dependent pre-measures of the study in order to investigate any abnormalities in the data that could potentially impact the interpretation of the main analyses that would follow. To investigate any group differences among the three groups prior to the intervention phase a one-way between-subjects ANOVA analysis was also conducted. Next,

two-separate mixed MANOVA analyses were conducted to reveal: (a) if children in the treatment groups showed more positive attitudes towards the refugee children, compared to children in the control groups, as well as to (b) investigate the potential effect of Grade on the outcome variables (IOS, Group-Esteem Threat, Empathy Toward the Refugee, Empathetic Sadness, CBI and Attitudes toward the Refugee). In addition, ANOVA analysis was conducted to assess any differences on the behavioral measure implemented in this study. In particular the first 3 (Time) X3 (Intervention) mixed MANOVA analysis was of more interest to the scope of the present study, since it investigated the effect of the intervention, whereas the second 3 (*Time*) X 2 (Grade) MANOVA analysis investigated the main effect of Grade with an emphasis on how this effect changed over time. Due to the small sample size, as well as on the fact that gender differences are not of paramount importance in study 2, the analysis did not account for gender differences. For that same reason, Grade X Intervention analyses were not conducted, i.e. they were not of specific interest for the present study, since *Grade* effects were investigated in Study 1 and intervention effects were assessed through the first MANOVA analysis. However, *Time X* Grade was investigated, since this type of interaction could shed light to differences identified in study 1 with regards to *Grade*, i.e. how differently did time impacted each grade. The stability of any Grade differences identified in this study could be investigated through measurements at different time points. Finally, the narrowness of the sample (as illustrated in table 23) would have resulted in very small sub-samples, had the design incorporated Intervention X Grade analyses. Thereby, it was preferred to conduct two separate-mixed MANOVA analyses, instead of one 3 (*Time*) X 3 (*Intervention*) X 2 (*Grade*), for reasons that have to do with sample size limitations, for parsimony reasons, as well as to make interpretation of the results easier.

In addition, four mediation analyses were conducted with the relationship between Intervention (type of intervention was treated as the independent variable) and Attitudes (Contact Behavioral Intentions and Attitudes toward the Refugee as the dependent variables) being mediated by Empathy and IOS, as well as Children's Perceived Threats. A behavioral measure (in the late response measures phase) was also quantitively processed, regarding the decision to allocate money to a number of charitable institutions and the amount allocated for the refugees. In this section the results from preliminary analyses will be first presented, followed by the main analyses of the data.

Normality

The normality of the data in this study was assessed after combining results from normality tests and from the relevant produced boxplots. The dependent variables all had skewness/SE and kurtosis/SE values smaller than ± 3 . The Kolmogorov-Smirnov, as well as the Shapiro-Wilk tests were significant for the post and late *Attitudes Toward the Refugee variable*, indicating that there might be a problem with normality concerning this variable. However, when the Q-Q plots were assessed, they looked roughly normal, with most of the spots falling on the fit line. Nevertheless, due to the inequality of the groups in each intervention, the assumption of normality was further assessed using the residuals. Results showed that for the pre and the post dependent measures the skewness and kurtosis values were acceptable (i.e. when divided by their standard error they were well below the ± 3 value), the normality tests were non-significant and the associated histograms and Q-Q plots appeared to approach normality. On the other hand, the residuals of the late dependent measures had some abnormalities; with the late *CBI* measure having a

kurtosis/S.E. value of 3.32. However, the normality tests were non-significant and the associated plots approximate normality. With the late *Attitudes Toward the Refugee* measure, the Kolmogorov Smirnoff test was significant (p=.049), as well as the Shapiro Wilk test (p=.019). However, there were no skewness or kurtosis problems and the relevant plots, again, approximate normality, except for a few points on the edges of the fit line of the Q-Q plot which fall a bit further from the line. Altogether, based on an overall assessment of the results the assumption of normality was met.

Homogeneity of Variance / Homoscedasticity

Levene's test of homogeneity of variance conducted separately for all the dependent variables (pre, post and late measures) indicated that variance was equal between the three groups, i.e. the intervention 1 group, the intervention 2 group and the control group, with the exception only of *post Attitudes Toward the Refugee* for which Levene's test came out significant (p=.041). Thereby, even though the assumption of homogeneity of variance seemed to have been met, still the *Post Attitudes Toward the Refugee* variable raised concerns that needed to be addressed when interpreting the results of the main analyses.

Errors' Independency & Linearity

The Durbin Watson test is used to check for errors independency. In specific, values around 2 are considered indicative of errors' independency. Here, with *Pre-CBI* as the dependent variable Durbin Watson is 2.003, while with *Pre-Attitudes Toward the Refugee* as the dependent variable the Durbin Watson value is 1.801. Both these values indicate that the errors' independency assumption has been met concerning the pre-measures. Regarding the post

measures the Durbin Watson test with the PostCBI as the dependent variable was 2.766, while with *Post-Attitudes Toward the Refugee* as the dependent variable the corresponding value was 2.228. Finally, with *late-CBI* the Durbin Watson test was 2.112 and with *Late-Attitudes toward the Refugee* it was 1.846. However, the Durbin Watson test is not such a robust test, since even changing the order of the cases listed in the dataset impacts the Durbin Watson value. Hence, plotting residuals against predictor variables is considered a more robust way to check for correlations of the residuals. The produced plots ideally should look like a rectangle and vary from +3 to -3. In this study, both the dependent variables values for pre, post and late measures in the relevant plots vary between ± 3 , and they approach the shape of a rectangle, thus confirming the assumption of errors' independency.

Equality of Covariance Matrices

Box's test tests the assumption, required in MANOVA analysis, of equality of covariance matrices. A non-significant Box's test indicates that equality of covariances can be assumed. Here Box's test is non-significant; F(15, 21815.144) = .582, p = .891.

Bartlett's test of sphericity is not reported since, as Field (2011) argues it is only useful in univariate repeated measures designs. In MANOVA designs this assumption is not required.

Considering all the preceding analyses, the conclusion is that the dataset comprises of roughly parametric data, even though normality issues have been raised based on normality tests and their corresponding plots. For this reason, analyses with parametric tests were also reconducted with non-parametric tests to assure reciprocal corresponding results.

The screening analysis comprised of the descriptive statistics for all the variables on each group and frequencies analysis was also conducted to ascertain valid percent for responses from the participants to all the questions in the research and corrections were made if incorrect entries were found. The next chapter presents the results of the baseline and the main analysis.

RESULTS

Between Group Comparisons at *T1* (prior to the intervention)

To investigate any group differences among the three groups prior to the intervention phase a one-way between-subjects ANOVA analysis was conducted to compare the effect of the intervention on *IOS, Group-Esteem Threat, Empathy toward the Refugee, Empathetic Sadness, Attitudes toward the Refugee* and *CBI* in intervention 1, intervention 2 and no intervention conditions. Results regarding mean scores, standard deviations and significance levels can be found in Appendix C (table C1). These results show that in the pre-measures phase (*Time 1*) mean scores on almost all variables (IVs and DVs) do not differ significantly, thus indicating that the three groups are equalized prior to the intervention phase. There is however a significant effect of the intervention condition on *Group-Esteem Threat* [*F* (2, 70) = 3.179, *p* = 0.048]. Post hoc comparisons using the Bonferroni corrector (at the *p*<.05 level) indicated that *Group-Esteem Threat* can be assumed as equal across the three groups (*p*=.093 between control group and intervention1 groups & *p*=.112 between the control group and the intervention2 group).

Moreover, as illustrated in table C1 (Appendix C) mean scores for almost all scales that reveal positivity are above the average mean score based on the scales range, i.e. above 3 for Recognition for Attitudes toward the Refugee, for Empathy Toward the Refugee, for Empathetic

Sadness and for Contact Behavioral Intentions, likewise above 4 in IOS, even though in the control group scores of IOS are less favorable. Accordingly, mean scores on the midpoint of the scale, that measures Group-Esteem Threat are below 3, or a bit over 3, indicating low feelings of threats, while Realistic Threats stand just above the 3 value.

In addition, correlations among all variables in the study showed that almost all variables (pre-measures) are significantly moderately to highly correlated (correlations ranging from .270 to .787). The only exception regards *Realistic Threats* and *Feelings for the Ingroup* which are either uncorrelated or exhibit very low correlations with the other variables. Results are illustrated in table 25 below.

Table 25

Variables	1	2	3	4	5	6	7	8	9	10	11
1.Feelings for Outgroup	1	.36**	.62**	.31**	.45**	.61**	.45**	18	53**	.69**	.68
2.Feelings for Ingroup		1	.23*	.15	.29*	.08	.18	06	21	.27*	.08
3.IOS			1	.43**	.35**	.46**	.37**	18	44**	.79**	.68**
4.Empathy Refugee				1		.30*	.36**	12	16	.53**	.55**
5.Empathetic Sadness					1	.42**	.50**	19	.27*	.36**	.42**
6.Multicultural Attitudes						1	.50**	54**	57**	.60**	.64**
7.Recognition for Need							1	31**	37**	.50**	.48**
8.Realistic Threat								1	.18	22	14
9.Group-Esteem Th.									1	57**	54**
10.Average CBI										1	.77**
11.Attitudes Refugee											1

Correlations between all variables – pre-measures in the study

*Significant for p<.05

**Significant for p<.01

Following, results coming from the two Mixed MANOVA analyses are discussed below and are indicative of the impact of the treatment condition (intervention) on the variables included in the study, as well as of the effect of *Time* and of *Grade*. Accordingly, the interactions of *Time of Intervention X Type of Intervention* and of *Grade X Time of Intervention* on the 6 variables examined with Reapeted Measures analysis are also addressed.

Main Analyses

A. 3 (Time) X 3 (Intervention) Mixed MANOVA

A 3 (*Time*) X 3 (*Intervention*) *Mixed MANOVA* design was implemented to investigate within groups differences among the three different times of measurement (pre, post & late measures), i.e. within each intervention group on each of the six dependent variables that were used in this design and regard the same variables included in the final SEM of study 1. Between-groups differences among the three different groups (intervention1, intervention 2 & control group) were also investigated.

Before presenting the results, a mark to be made is that even though the analysis statistic regards a repeated measures design, still due to the MANOVA statistic, Mauchly's test of sphericity will not be regarded as a pre-requested assumption, as MANOVA is considered to be a powerful statistic and results are not influenced by violations of sphericity. Therefore, no adjustment is to be made, even if the assumption of sphericity is not met, when using the MANOVA statistic (O' Brien, & Kaiser, 1985). Evenso, and for descriptive reasons only, the only measure that did not meet the assumption of sphericity was *IOS* ($x^2(2)=9.07$, p=.011) for which, however, the corrected significanse levels using the Greenhouse-Geisser corrective

coefficients showed that there was no substancial deviation from spheriscity since Greenhouse-Geisser ε =.865 is closer to 1, rather to the Lower-bound value of .500 (based on Filed, 2013 suggestion).

Main Effects

Results from the multivariate tests of significance reveal that *Time of Measurement* and *Type* of Intervention significantly impact the variables examined in the study. It is important to note that all four multivariate tests of significance came out significant for *Time of Measurement*, but for Type of Intervention only the Roy's largest root test was found to be significant for betweensubjects comparisons. However, concerning within-subjects comparisons, Time of Measurement and the interaction of *Time of Measurement* with Type of Intervention resulted in significant multivariate tests (all four tests). Here, results from Roy's largest root are reported, as this is considered to be "the most powerful multivariate test of significance" (Field, 2013, p.643). This suggests that all measures across the three time points have at least one mean vector pairing which has resulted in a significant difference. In specific, multivariate tests (table 26) results show a within subjects significant effect of *Time of Measurement* $\Theta = 0.724$, F(12, 59) = 3.561, $p < .001, \eta^2 = .438$, of Type of Intervention $\Theta = 0.220$, F(6, 65) = 2.381, $p < .05, \eta^2 = .180$ and of the interaction of Time and Type of Intervention $\Theta = 0.724$, F(12, 59) = 3.561, p=.001, $\eta^2=.420$. All effect sizes are classified as medium to large, since $.11 > \eta^2 > .06$ indicates a medium effect and $.20 > \eta^2 > .14$ indicates a large effect (Cohen, 1988; Hattie, 2009).

Table 26

Effect	Θ	F	df1	df2	η^2
Time	.781	3.773***	12	58	.438
Intervention	.220	2.381*	6	65	.180
Time*Intervention	.724	3.561***	12	59	.420

Multivariate tests: Roy's Largest Root – Within subjects

p<.05,* p<.01**, p<.001 ***

Note: Results are not based on averaged variables

Univariate Tests & Interaction Effects

The significant multivariate tests were followed by separate univariate ANOVAs on the outcome variables which revealed significant within-subjects treatment effects of *Time* on *IOS* F(2, 138) = 7.902, p = .001, $\eta^2 = .103$, on *Group-Esteem Threat* F(2, 138) = 5.455, p = .005, $\eta^2 = .073$, on *CBI* F(2, 138) = 3.323, p = .039, $\eta^2 = .046$ and on *Attitudes Toward the Refugee* F(2, 138) = 5.992, p = .003, $\eta^2 = .080$. In addition, the interaction effect of *Time X Intervention* had a significant effect on *IOS* F(4, 138) = 4.246, p = .003, $\eta^2 = .110$ and *Empathy Toward the Refugee* F(4, 138) = 4.338, p = .002, $\eta^2 = .112$. Results are shown in table 27.

Table 27

Significant F-tests for Univariate (within-subjects) Follow-up Tests

Effect	Measure	F	η^2	df1	df2
Time	IOS	7.902**	.103	2	138
	Group-Esteem Threat	5.455**	.073	2	138
	CBI	3.323*	.046	2	138
	Attitudes toward Refugee	5.992**	.080	2	138

Time*Intervention	IOS	4.246**	.110	4	138	
	Empathy Refugee	4.338**	.112	4	138	
<i>p</i> <.05,* <i>p</i> <.01**,	<i>p</i> <.001 ***					

Further pairwise analysis of the mean differences based on Time revealed the time points

that these differences occurred within each intervention group. Results are shown in table 28.

Table 28

Pairwise within-subj	ects mean difference	s at different time	points (T1.	T2, T3	3)
······································					/

Measure		et & Activ			Puppet Onl	•		Control	
		tervention			tervention			tervention	
	<i>T1-T2</i>	<i>T1-T3</i>	<i>T2-T3</i>	<i>T1-T2</i>	<i>T1-T3</i>	<i>T2-T3</i>	<i>T1-T2</i>	<i>T1-T3</i>	<i>T2-T3</i>
IOS	-1.82	-0.26	1.57	-1.13	54	.58	.35	.54	.19
p value	.000***	.59	.000***	.004**	.26	.12	.34	.24	.59
G-E Thr.	.06	33	39	.42	38	80	.08	06	02
p value	.61	.20	.08	.07	.13	.002**	.57	.81	.45
Emp.Ref	54	65	10	38	16	.23	25.	.54	.28
p value	.013*	.001**	.61	.07	.42	.25	.22	.005**	.13
Emp.Sad	19	05	.14	.13	.25	.13	06	.10	.16
p value	.40	.80	.50	.55	.21	.54	.78	.61	.42
CBI	43	08	.35	22	.07	.29	.18	.53	.34
p value	.07	.75	.09	.33	.76	.14	.40	.02*	.07
Attitudes	57	19	.38	53	.18	.71	.08	.33	.25
Ref.									
p value	.03*	.44	.07	.04*	.45	.001**	.75	.15	.21

*p<.05, ** p<.01, ***p<.001

As shown in table 28 mean differences based on different time points were found to be significant within the intervention 1 group for IOS when comparing baseline measures (*Time 1*) to post (*Time 2*), showing that post and late measures were significantly more positive compared to pre-measures, while there was a significant decrease from T2 to T3. Empathy toward the Refugee was significantly increased in the post and late measures, compared to baseline measures. Finally, within the intervention 1 group, a significant difference was identified when comparing pre (*Time 1*) to post measures (*Time 2*), indicating improved attitudes in *Time 2*.

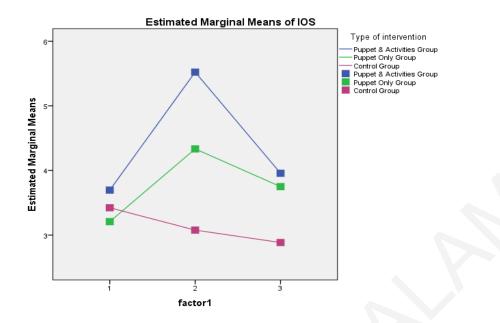
Coming to the intervention 2 group significant mean differences were found showing increased IOS *from Time 1* to *Time 2*. In addition, increased *Group-Esteem Threat* was found from *Time 2* to *Time 3* and concerning *Attitudes toward the Refugee* a significant improvement was revealed from *Time 1* to *Time 2* and then a significant deteriorating from *Time 2* to *Time 3*.

Finally, with regards to the control group significant differences were identified for both *Empathy toward the Refugee* and *CBI* from *Time 1* to *Time 3*. These differences are illustrative of the deteriorating that occurred throughout the time period from the onset of the study to the follow-up measures taken 6 months after the intervention part (for groups 1 and 2) had finished. The above results are all graphically depicted in figure 12.

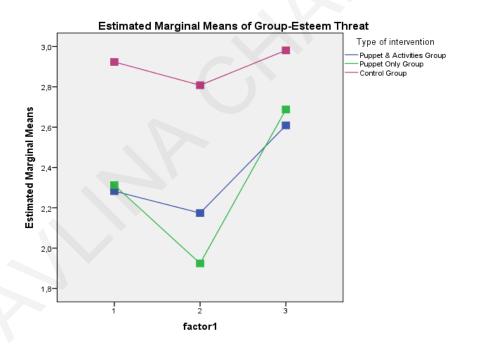
Between Subjects Effects - Contrasts

Significant between subjects effects were followed by contrasts in order to reveal which pairs of groups significantly differ on the above variables. Results showed that intervention 1 (contact and activities) group, compared to the control group, scored significantly higher at *T*2 on *IOS F*(2, 11.02) = 5.63, p = .007, on *Empathy Toward the Refugee F*(2, 11.02) = 5.63, p = .023, on *CBI F*(2, 11.02) = 5.63, p = .005, on *Attitudes Toward the Refugee F*(2, 11.02) = 5.63, p = .023,

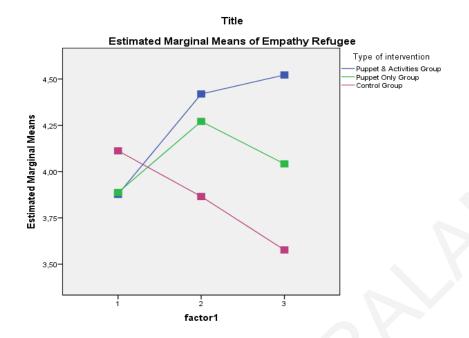
=.003 and significantly lower on *Group Esteem Threat F*(2, 11.02) = 5.63, p = .007. When the intervention 2 group (mere exposure) was compared to the control group results showed that intervention 2 group scored significantly higher on *CBI F*(, 11.02) = 5.63, p = .049, on *Attitudes Toward the Refugee F*(, 11.02) = 5.63, p = .008 and significantly *lower* on *Group Esteem Threat F*(2, 11.02) = 5.63, p = .003. Post hoc comparisons also revealed significant differences between the two intervention groups (intervention 1 vs intervention 2) only at *T*2 on *IOS (I-J)*=1.188, *SE*=.*548*, p=.*034* [.095, 2.281]. At *T*3 differences between the two intervention groups were found on *Empathy toward the Refugees (I-J)*=.480, *SE*=.*233*, p=.*043* [.016, .944]. No other significant differences between the intervention 1 and the control group at *T*3 regarder *Empathy toward the Refugees (I-J)*=.945, *SE*=.228, p<.001 [.385, 1.501], *CBI (I-J)*=.979, *SE*=.302, p=.005 [.239, 1.720] and *Attitudes toward the Refugees (I-J)*=.856, *SE*=.278, p=.009 [.175, 1.537]. All subjects main effects at time 2 (*T*2) and time 3 (*T*3) are shown in tables C8 and C9 in Appendix C.



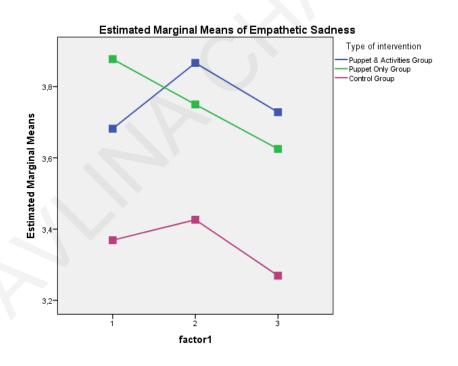
* Significant differences on IOS were found within the Intervention 1 group (T1-T2 & T2-T3) and within the Intervention 2 group (T1-T2).



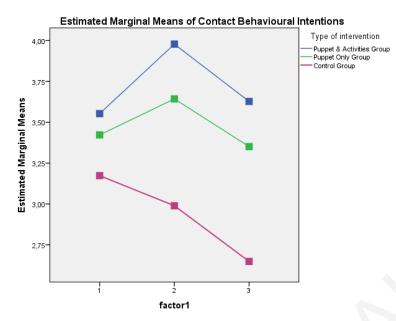
* Significant differences were found on G-E Threat within the Intervention 2 group (T2-T3). In addition, a significant difference was found at T1 (between groups) as the Control group scored higher that the other two groups.



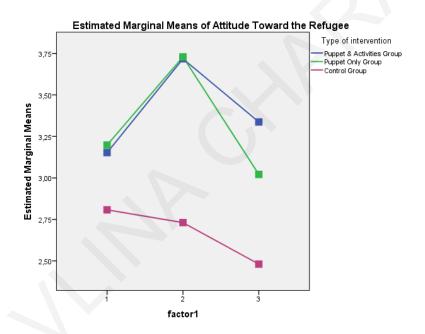
* Significant differences on Empathy Toward the Refugee were found within the Intervention 1 group (T1-T2 & T1-T3) and within the Control group (T1-T3).



* No significant differences were found.



* Significant differences on CBI were found for the Control group (T1-T3).



* Significant differences on Attitudes toward the Refugees were found within the Intervention 1 group (T1-T2) and within the Intervention 2 group (T1-T2 & T2-T3).

Figure 12. Group differences at T1 (pre), T2 (post) & T3 (late) measures (factor 1 refers to time).

B. 3 (Time) X 2 (Grade) Mixed MANOVA

Main Effects

A 3 (Time) X 2 (Grade) Mixed MANOVA design was implemented to investigate withingroups differences within each Grade from *T1 to T2*, from *T2 to T3* and from *T1 to* T3 (pre, post & late measures) on each of the six dependent variables that were used in this design and regard the same variables included in the final SEM of study 1. Between-groups differences between 3^{rd} Grade and 5^{th} Grade children were also investigated.

Results from the multivariate tests of significance reveal that *Time of Measurement* and *Grade* significantly impact the variables examined in the study. All four multivariate tests of significance came out significant for *Time of Measurement and for Grade*. Concerning within-subjects comparisons the interaction of *Time of Measurement* with *Grade* resulted in significant multivariate tests (all four tests). This suggests that all measures across the three time points have at least one mean vector pairing which has resulted in a significant difference. Results from Roy's largest root are reported in table 29.

Table 29

Effect	Θ	F	df1	df2	η^2
Time	.784	3.853***	12	59	.439
Grade	.328	3.552**	6	65	.247
Time*Grade	.505	2.485*	12	59	.336

Multivariate tests: Roy's Largest Root – Within subjects

p<.05,* *p*<.01**, *p*<.001 ***

Note: Results are not based on averaged variables

In specific, multivariate tests results show a within-subjects significant effect of *Time of Measurement* $\Theta = 0.784$, F(12, 59) = 3.853, p < .001, $\eta^2 = .439$, of *Grade* $\Theta = 0.328$, F(6, 65) = 3.552, p = .004, $\eta^2 = .247$ and of the interaction of *Time and Grade* $\Theta = 0.505$, F(12, 59) = 2.485, p < .01, $\eta^2 = .336$ and of the interaction of *Time* and *Grade* $\Theta = 0.505$, F(12, 59) = 2.485, p = .01, $\eta^2 = .336$.

Univariate Tests & Interaction Effects

The significant multivariate tests were followed by separate univariate ANOVAs on the outcome variables which revealed significant within-subjects treatment effects of *Time* on *IOS* F(2, 140) = 7.459, p = .001, $\eta^2 = .096$, on *Group-Esteem Threat* F(2, 140) = 5.841, p = .004, $\eta^2 = .077$, on *CBI* F(2, 140) = 3.596, p = .030, $\eta^2 = .049$ and on *Attitudes Toward the Refugee* F(2, 140) = 7.089, p = .001, $\eta^2 = .092$. In addition, the interaction effect of *Time X Grade* had a significant within-subjects effect on *Attitudes toward the Refugee* F(2, 140) = 7.649, p = .001, $\eta^2 = .099$. Results are shown in table 30.

Table 30

Significant F-tests for Univariate (within-subjects) Follow-up Tests
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Measure	F	η^2	df1	df2
IOS	7.459**	.096	2	140
Group-Esteem Threat	5.841**	.077	2	140
CBI	3.596*	.049	2	140
Attitudes toward Refugee	7.089**	.092	2	140
Attitudes toward Refugees	7.649**	.099	2	140
	IOS Group-Esteem Threat CBI Attitudes toward Refugee	IOS7.459**Group-Esteem Threat5.841**CBI3.596*Attitudes toward Refugee7.089**	IOS 7.459** .096 Group-Esteem Threat 5.841** .077 CBI 3.596* .049 Attitudes toward Refugee 7.089** .092	IOS 7.459** .096 2 Group-Esteem Threat 5.841** .077 2 CBI 3.596* .049 2 Attitudes toward Refugee 7.089** .092 2

p<.05,* p<.01**, p<.001 ***

With regards to the interaction effect of *Time X Grade* further pairwise analysis of the mean differences based on *Time* revealed the exact time points that these differences occurred within each Grade of children. Results revealed additional mean differences for the 3rd Grade children. even though the preceding within-subjects *F*-Tests had initially shown differences only with regards to the Attitudes toward the Refugees measure. Exact differences are shown in table 31 and are also graphically depicted in figure 13. Further contrast analyses revealed that the interaction of *Time X Grade* had also significant effects on *IOS* at *T2*, with 3rd Grade children scoring significantly higher (p=.003), on Group-Esteem with 5th Grade children scoring significantly higher at T1 (p < .001) and T2 (p = .002), on CBI with 3rd Grade children scoring significantly higher at T2 (p=.005) and finally on Attitudes toward the Refugee with 3rd Grade children scoring again higher at T2 (p=.001).

Table 31

	-	ets mean diff	ferences at	different	time points	<i>(T1, T2,</i>	T3) for 3^{rd} and 5^{th}	h
Grade child	ren							
Measure		3 rd Grade			5 th Gra	ade		
	T1 T2	T1 T2	T) T2		\mathbf{r}	T'	<u>)</u> T2	

Measure		3 rd Grade			5 th Grade	2
	<i>T1-T2</i>	<i>T1-T3</i>	<i>T2-T3</i>	<i>T1-T2</i>	<i>T1-T3</i>	<i>T2-T3</i>
IOS	-1.62	-1.12	-0.36	-0.32	.00	0.32
p value	.000***	.774	.000***	.332	1.00	.292
G-E Thr	0.28	-0.43	-0.71	0.25	0.04	-0.21
p value	.523	.006**	.001**	.135	.837	.264
Emp.Ref	-0.51	-0.21	0.28	-0.07	-0.06	0.01
p value	.024*	.455	.093	.685	.737	.934
Emp.Sad.	-0.21	0.05	0.26	-0.12	0.13	0.01
	_					

p value	.231	.785	.123	.474	.413	.943
CBI	-0.46	0.11	0.57	0.09	0.20	0.11
p value	.046*	.366	.001**	.626	.297	.475
Att. Ref.	-0.72	0.22	0.94	-0.09	-0.13	-0.04
p value	.004**	.080	.000***	.670	.499	.785

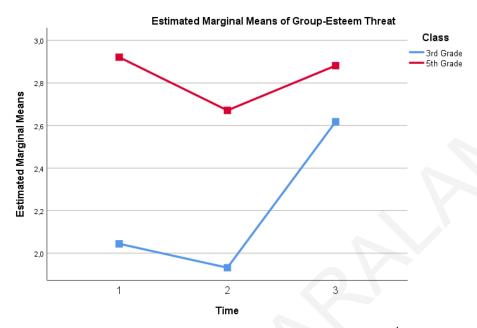
*p<.05, **p<.01, ***p<.001

As illustrated in table 39 within-subjects mean differences based on different time points were only found within the 3^{rd} Grade children. In specific, significant differences were found from *T1* to *T2* and from *T2* to *T3* on *IOS*, from *T1* to *T2* and from *T1* to *T3* on Group-Etseen Threat, from *T1* to *T2* on *Empathy toward the Refugee*, a marginally significant mean difference from *T1* to *T2* and a significant mean difference from *T2* to *T3* on *CBI* and finally a significant mean difference from *T1* to *T2* and from *T2* to *T3* on *Attitudes toward the Refugee*.

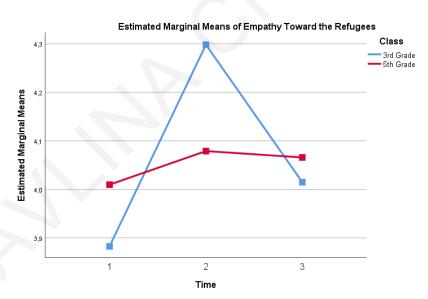


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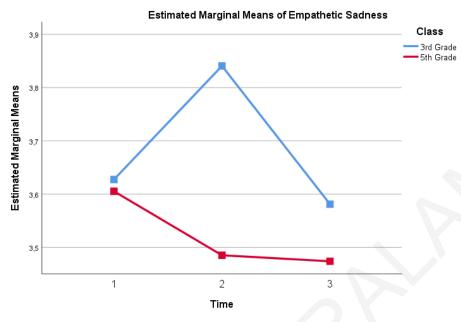
* Significant differences on IOS were found within 3^{rd} Grade children (T1-T2, p<.001 & T2-T3, p<.001).



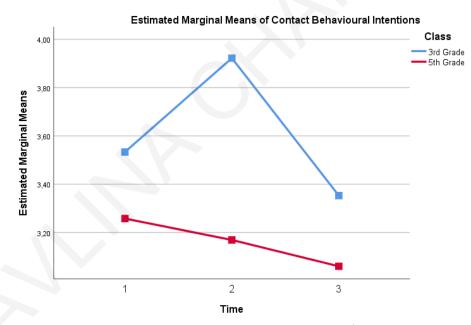
* Significant differences on G-E Threat were found within 3^{rd} Grade children (T1-T3, p=.006 & T2-T3, p=.001).



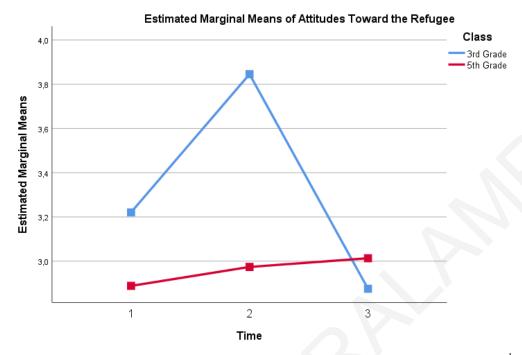
* Significant differences on Empathy Toward the Refugee were found within 3^{rd} Grade children (T1-T2, p=.024).



*No significant differences were found.



* Significant differences on CBI were found within 3^{rd} Grade children (T1-T2, p=.046 & T2-T3, p=.001).



* Significant differences on Attitudes toward the Refugee were found within 3^{rd} Grade children (T1-T2, p=.004 & T2-T3, p<.001).

Figure 13. Group differences between 3rd Grade and 5th Grade children at T1 (pre), T2 (post) & T3 (late) measures.

Between Subjects Effects

Baseline comparisons at *T1* revealed only a significant difference concerning *Group-Esteem Threat* which was increased for 5th grade children. Comparisons at *T2* showed that younger children scored significantly higher on all positive measures (with the exception only of *Empathy toward the Refugees* and *Recognition for Need*) and significantly lower on measures of threats, compared to older children (please table C6 in the appendix). In specific, younger children scored significantly higher on *IOS* t(81) = 3.26, p = .002, on *Multicultural Att.* t(81) = 3.81, p < .001, on *CBI* t(81) = 2.81, p = .006, on *Attitudes Toward the Refugee* t(81) = 3.20, p = .002, on *Feelings for the Ingroup* t(81) = 4.11, p < .001, on *Feelings for the Outgroup* t(81) = 4.20, p < .001, on *Context and the Probability* t(81) = 4.20, p < .001, on *Context and the Probability* t(81) = 4.20, p < .001, on *Context and the Probability* t(81) = 4.20, p < .001, on *Context and the Probability* t(81) = 4.20, p < .001, on *Context and the Probability* t(81) = 4.20, p < .001, on *Context and the Probability* t(81) = 4.20, p < .001, on *Context and the Probability* t(81) = 4.20, p < .001, on *Context and the Probability* t(81) = 4.20, p < .001, t(81) = 4.20, t(81) = 4.20

001, on *Empathetic Sadness*, t(81) = 2.10, p=.039 and significantly lower on *Group-Esteem Threat* t(81) = -3.49, p = .001 and on *Realistic Threat* t(81) = -3.45, p=.001. At *T3*, the only difference between 3rd and 5th grade children regarded *Realistic Threats* t(71) = -2.38, p = .020that which were significantly higher for older children (please see table C7 in the appendix).

Mediation Analyses

Consistent with study 1 and the associated resulted conceptual path model, the potential mediating role of four factors was assessed through mediation analysis. However, testing for mediation with longitudinal data is considered as a much more powerful procedure, compared to mediation with concurrent data, since it satisfies the temporality pre-requirement set for causality (Hill, 1965), i.e. the predictor variable under study must preceed the occurance of the mediating variable which in turn preceeds the occurance of the outcome variable. When using three-wave longitudinal data, as in study 2 here, the predictor variable is naturally being measured at a different time (T1, pre-measure), from the mediating variable (T2, post measure) and from the outcome variable (T3, late-response measure), thus meets the temporality criterion set for causality claims. As Maxwell and Cole (2007) discuss, "mediation consists of causal processes that unfold over time" (p.23). In contrast, mediation analysis with concurrent non experimental data can be misleading, or as Jose (2016) argues, results are "inherently ambiguous" (p. 331). He supports his argument by discussing examples of significant concurrent mediations which are not supported by significant longitudinal mediation analysis, therefore not only do they fail to prove causality relations, but they also lack generalizability.

Jose concludes that concurrent mediation offers a weak argument regarding causal direction, whereas statistical significant mediation results with longitudinal data, even when small in

objective size, they are still very important, because they are much harder to achieve (Jose, 2016). The reason for this is partly attributed to the usual involvemnet of residualized mediators and outcomes within longitudinal mediation designs, which consequently lead to estimates of indirect effetcs based on small coefficients (residual coefficients are smaller than raw coefficients because the varience associated with stability of the variable over time has been removed); thus resulting in generally small or very small numerical estimates (Jose, 2016). Nonetheless, using Jose's (2016) words, "even small indirect effects, if found to be statistically significant, should be accorded recognition and consideration" (p. 339).

Experimental Longitudinal Mediation

Another important criterion Hill (1965) has set for causality verification regards the design of a study. Experimental or quasi – experimental designs are considered the most powerful designs in establishing causal relations, which are really hard to achieve in social sciences (MacKinnon & Dwyer, 1993; Klull & MacKinnon, 1999). A carefully performed experiment, that assess the impact of potential mediators can signifficantly illustrate the mechanisms through which the intervention has an impact on the dependent measures (Jose, 2016).

In the case of study 2 here, which is based on a three wave longitudinal quasi-experiment design, the predictor (independent) variable was a multi-categorical variable, since it comprised of three distinct categories, i.e. a control condition, a contact and activities with the puppet condiction (intervention 1) and a mere exposure to the puppet condition (intervention 2). The mediators tested were *Inclusion of Other in the Self, Empathetic Sadness, Empathy Toward the Refugee* and *Group-Esteem Threat*. Each potential mediator was tested for its impact on two outcome measures separately, namely on *Attitudes toward the Refugee* and on *Contact*

Behavioral Intentions. The conceptual longitudinal mediation model embedded within the quasiexperiment is illustrated in figure 14. Mediator variables at time 2 (T2) and the dependent variables at time 3 (T3) were not residualized in the main body of the table presented below. This was decided upon the assumption that when conducting longitudinal mediation with experimental data, covarying out stability in the model is not usually necessary. As Jose (2016) argues "by randomly assorting participants into the experimental and control groups at the inception, one (usually) effectively removes any mean group differences between ...groups" (p. 336). Having illustrated earlier that the three groups did not significantly differ at *Time 1* (premeasures), allows to conduct mediation analyses without covarying out stability; however, mediation analyses were also conducted using difference scores and these results are reported as a footnote in table 32. Mediation analyses were conducted using *PROCESS* (Hayes, 2012). Results are illustrated in table 32 and are being discussed below (for the specific separate conceptual models, please see Appendix C).

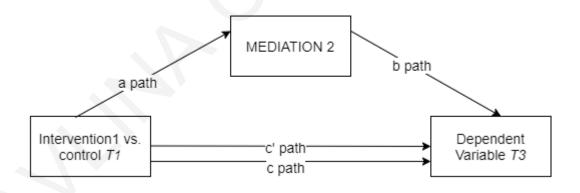


Figure 14. The longitudinal mediation model embodied within the quasi-experiment

Table 32

Results from Mediation Analyses for the two intervention groups and the control group

Groups	Mediator	Outcome	Results
Control vs Inter.1	PostIOS (T2)	Attitudes Refugee (T3)	Full Mediation
Control vs Inter.2	PostIOS (T2)	Attitudes Refugee (T3)	Full Mediation
Control vs Inter.1	PostIOS (T2)	CBI (<i>T3</i>)	Full Mediation
Control vs Inter.2	PostIOS (T2)	CBI (T3)	Full Mediation
Control vs Inter.1	Empath. Sadness (T2)	Attitudes Refugee (T3)	No Mediation
Control vs Inter.2	Empath. Sadness (T2)	Attitudes Refugee (T3)	No Mediation
Control vs Inter.1	Empath. Sadness (T2)	CBI (<i>T3</i>)	No Mediation
Control vs Inter.2	Empath. Sadness (T2)	CBI (<i>T3</i>)	No Mediation
Control vs Inter.1	Empathy Refugee (T2)	Attitudes Refugee (T3)	Partial Mediation
Control vs Inter.2	Empathy Refugee (T2)	Attitudes Refugee (T3)	No Mediation
Control vs Inter.1	Empathy Refugee (T2)	CBI (<i>T3</i>)	Partial Mediation
Control vs Inter.2	Empathy Refugee (T2)	CBI (<i>T3</i>)	No Mediation
Control vs Inter.1	G-Esteem Threat $(T2)$	Attitudes Refugee (T3)	No Mediation
Control vs Inter.2	G-Esteem Threat $(T2)$	Attitudes Refugee (T3)	No Mediation
Control vs Inter.1	G-Esteem Threat $(T2)$	CBI (<i>T3</i>)	No Mediation
Control vs Inter.2	G-Esteem Threat $(T2)$	CBI (<i>T3</i>)	No Mediation

Note 1.T2 indicates post measures taken at time 2 and T3 indicates late measures taken at time 3. 2. When the analyses were conducted based on difference scores, results revealed that IOS and Empathy toward Refugees fully mediated the relationship between intervention 1 group (compared to the control group) and each of the two outcome measures. No mediation was revealed for the intervention 2 group.

Mediation in the relationship between intervention 1 vs control group

Regarding the intrevention 1 group which experienced contact with the puppet along with activities that aimed at empathy induction (and was also informed about the puppet's difficult prior life), results revealed the mediating role of *IOS* between intervention 1 and *Attitudes toward the Refugee* (Indirect Effect=0.578, *SE*=0.184, 95% CI[0.281, 1.008]). Since zero is not included in the 95% confidence interval, mediation has occurred for control versus intervention 1 groups - The proof of mediation for the remaining results is accordingly based on the fact that zero is included in the confidence intervals presented below. The mediation was full, meaning that the direct impact from the intervention to *Attitudes toward the Refugee* became non-significant, with the inclusion of the mediator *IOS* in the model. Furthermore, results revealed partial mediation through *Empathy Toward the Refugee* between intervention 1 and *Attitudes toward the Refugee* (Indirect Effect=0.244, *SE*=0.138, 95% CI[0.043, 0.592). When the outcome variable was *CBI* results revealed a full mediation of intervention 1 to *CBI* through *IOS* (Indirect Effect=0.772, *SE*=0.191, 95% CI[0.450, 1.205]) and partial mediation through *Empathy toward the Refugee* (Indirect Effect=0.271, *SE*=0.135, 95% CI[0.059, 0.605]).

Mediation in the relationship between intervention 2 vs control group

The intervention 2 experienced mere exposure to the puppet, without any further engangement with the puppet, but was also informed about the puppets' difficult life at the beginning or the intervention. Results revealed the full mediating role of *IOS* in the relatioship between inetrvention 2 and *CBI* (Indirect Effect=0.397, *SE*=0.192, 95% CI[0.061, 0.828]), as well as the full mediating role of *IOS* in the relatioship between intervention 2 and *Attitudes toward the Refugee* (Indirect Effect=0.297, *SE*=0.154, 95% CI[0.046, 0.665]).

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Altogether, the above results confirm the mediating role of two out of the four under study mediators, namely of IOS, which appears to be the strongest and more consistent mediator and its mediating role was revealed for both intervention groups when compared to the control group and of *Empathy toward the Refugee*, which was found to mediate the relationship between intervention 1 (but not intervention 2) and CBI and likewise between intervention 1 (but not intervention 2) and Attitudes toward the Refugee. On the contrary, the mediating role of Empathetic Sadness and that of the Group-Esteem Threat were not confirmd in any of the models. The above results, having been conducted with longitudinal data and embeeded in a quasi experimental design reveal causality a) between the two interventions and Attitudes toward the Refugee through the full mediating role of IOS, b) between the two interventions and CBI through the full mediating role of IOS, c) between intervention 1 and Attitudes toward the Refugee through Empathy toward the Refugee (partial mediation) and finally d) between intervention 1 and CBI through Empathy toward the Refugee (partial mediation). Detailed diagrams of all mediating models and the relevant coefficients can be found in Appendix C. When mediation was based on residualized scores on the depended measures, however, the mediating role of IOS and of Empathy toward the Refugee was only confirmed for the intervention 1 group (full mediations).

Assessing the Behavioral Measure

As presented earlier the study incorporated a behavioral measure in T3 included in the late response measures, which were administered six months after the intervention had finished. By that time (T3), participating children had been already attending the 4th and the 6th grades respectively for 3 months, after they had spent almost another three months away from their

schools due to summer holidays. Prosocial behaviour toward the refugee children was assessed through a resource allocation task (as implemented by Batson and colleagues 2002, 2010). In particular, children were told that the parents' association had collected the amount of 2000 euros in order to help clubs/organizations in need. The task informed the children that parents' association asked the children to vote as to how they wanted the money to be allocated. Children were presented with five potential competing groups in need, namely an environmental organizatiuon, a club for the elderly, a Syrian refugee camp, a dance club and an organization for the handicaped and were told that they should choose which clubs/organizations to help and then split the money as they wished. One-way ANOVA did not show any significant differences regarding the amount allocated to the refugees compared to the amount allocated to other groups in need F(2,70)=2.12, p=.128, nor did for the decisions not to allocate any money for the refugees, compared to allocating money to other groups F(2,70)=1.97, p=.147. However, a clear favorable trend was obvious among the two intervention groups, since only 3 out of the 23 children in intervention 1 group and 4 out of 24 children in intervention 2 group decided not to help the refugees, whereas 9 out of the 26 children in the control group did not allocate any amount for the refugees. Table 33 shows the number of children that ommitted to allocate money to each organization / group in need and it clearly illustrates that children's reasoning was based on objective relevant criteria, i.e. the majority chose to ommit the dance club. In addition, the mean amount allocated to the refugees was the highest in the intervention 1 group (X = 515.22) euros, SD=341.60), followed by the intervention 2 group (X = 458.33 euros, SD=350.36) and then the control group (X = 319.23 euros, SD = 343.825). Even though the difference in the mean amount allocated to the refugees in the intervention 1 group profoundly exceeds the respective

amount allocated by the control group (i.e. 161,86 euros), which may constitute a large effect, yet this behavioral distinction marginally failed to reach significance when the intervention 1 group was compared to the control group (F(1,70) = 3.93, p=.051). Accordingly, Field (2011) illustrates how small samples may impact the statistical significance between two groups, resulting in a non-significant p value, even when this difference produces a large effect size.

Table 33

Number of children that did not allocate money to each group in need

Group omitted	None	Environment	The Elderly	Refugee	Dance	Handicapped
Number of child.	17	6	16	16	46	5

Though the one-way ANOVA test came out marginally non-significant, planned contrasts were performed, since ANOVA is considered an over-conservative test in this occasion. Additionally, given that there is a control group and a specific pre-stated hypothesis that the intervention groups will exhibit more positive behaviours towards the Syrian refugees the planned contrasts evaluation was based on the one-tailed significance. Planned contrasts can be used when specific hypotheses have been generated prior to the experiment (Field, 2011) and one-tailed significance can be applied when there is certainty that the expected differences will fall in one of the two tails of the distribution (Field, 2011). In addition, Frost (n.d.) argues that another good technique is to instead of using a one-tailed test, using a two-tailed test and doubling the significance level, such as from 0.05 to 0.10, as this approach increases power while allowing the test methodology to match the reality of the situation better. And in this study, what is of more interest and depicts reality is the general trend found in the two intervention

groups compared to the control group to allocate more money for the refugees and that this trend almost reached significance, even with a small sample size. In any case, contrasts revealed a significant difference between *Intervention 1* group and the *control* group with t(70)=1.983, p=.013 (one-tailed), r=.22 (small effect). Further comparisons between the the two age groups revealed that older children allocated more money to the refugees irrespective of their group membership. In particular, planned contrasts showed that the significant difference derived from the compariston between intervention 1 (3rd Grade) to the control Group (3rd Grade), with t(35)=2.722, p=.003 (*one-tailed*), r=.42 (*large effect*). There was no significant difference within 5th grade children of the intervention 1 group compared to 5th grade children of the control group, thereby older children allocated more money to the refugees irrespective of the group they were part of. Likewise, planned contrasts within each intervention group provided further support to this finding, since they revealed a significant difference between 3rd and 5th Grade children only in the Intervention 1 group, with 5th Grade children allocating more money to the Refugees t(21)=-3.168, p=.005 (two-tailed), r=.57 (large effect) (please see table C8a.).

DISCUSSION

The present study investigated the prevalence of children's attitudes in Greece toward the Syrian refugee children, whom they had never encountered with by the time the study was taking place and up until the intervention had finished. The aim of the study was to investigate the effectiveness of a new form of intergroup contact; contact with a puppet holding the identity of a Syrian refugee child, as well as to verify the mechanisms through which intergroup attitudes may improve, along with intentions for intergroup contact and even intergroup behaviours. For this

reason, the mediating role of empathy, of threats and of inclusion of other in the self were all investigated.

Results partly confirmed hypothesis (a) since some of the assumed constructs were not improved for neither of the two intervention groups. In specific, none of the two intervention groups showed significantly increased empathetic sadness compared to the control group. In addition, the intervention group that only had mere exposure to the puppet and was only presented with an empathy inducing narrative of the puppet's life at the beginning of the intervention, without the implementation of activities with the puppet, did not show increased levels of Empathy toward the Refugee, compared to the control group. Thus, only the intervention group that had contact with and participated in the empathy inducing activities had significantly increased empathy toward the refugees at T2, right after the intervention had finished. Most importantly, children in the intervention 1 group continued to exhibit equally high levels of empathy toward the refugees, six months after the intervention had finished, as opposed to the other two groups whose levels of empathy toward the refugees had dropped to the original levels prior to the intervention for the intervention 2 group and even below the original measure (pre-measure) for the control group. Nonetheless, children in the two intervention groups scored significantly lower in Group-Esteem Threat. In addition, both intervention groups scored significantly higher on the IOS, the CBI and the Attitudes toward the Refugee measures, thus providing support to hypothesis (c), while children that had intergroup contact with the puppet, along with activities, scored significantly higher on the IOS measure, compared to children that only had mere exposure to the puppet.

Altogether results from measures on *T2 (post measures)* give support to hypothesis (e) which proposed that intergroup contact with activities will be more effective compared to mere exposure to the puppet. This finding is in line with Tropp and Prenovist (2008) who argue that structured intergroup contact results in statistically significant greater effects Hypothesis (e) is also indirectly supported by the fact that, even though mean differences between the two intervention groups were not significant (with the exception of IOS at *T2* and *Empathy toward the Refugee* at *T3*), still children in the intergroup contact with the puppet & activities group scored higher in all measures that indicate positivity toward the refugee and lower in the measures that indicate negativity toward the refugee (i.e. threats) and this finding concerns all measures incorporated in the study.

With regards to hypothesis (d) which regarded behavioural positivity indicated by the money allocation task, significant differences were revealed between the intervention 1 group and the control group. In specific, children in the intervention group that incorporated contact and activities allocated the highest mean amount to the refugees, followed by the intervention group that had mere exposure to the puppet, leaving the control group allocating the lowest amount to the refugee group. Vezzali et al. (2015) as well as Glen (2017), also found trends of more positive behaviour coming from the intervention groups in their study with children (2 weeks after their intervention had finished), which did not, however, reach statistical significance. In the present study the significant difference was revealed after following a marginally significant ANOVA (p=.051) with one-tailed significance planned contrasts and this finding produced a moderate effect size (r=.22). Further analyses showed that this difference was more powerful in the 5th grade sample (p=.005, r=.42) within the intervention 1 group, as illustrated by the high

level of significance achieved with an even smaller sample (*Group* N_1 _{5th gradel}=11 Vs. *Group* N_1 _{3rd grade} = 12). The fact that the behavioural measure was undertaken 6 months after the intervention had finished, with a small sample size (total N=73, *Group* $N_{1, 2, control}=23, 24, 26$ *respectively*), most probably impacted the outcomes of the study. Had the allocation money task been included at T2 might had resulted in significant outcomes with larger effect size at that time, even with a small sample. Nonetheless, the pervasiveness of any positive results is considered a much more important objective in the present research work, that goes beyond the strict significance level.

Hypothesis (e) assumed that positive attitudes and behaviours will be more profound in the intervention 1 group (contact with the puppet and empathy inducing activities – the puppet has an active presence) compared to the intervention 2 group (mere exposure to the puppet - the puppet has a passive presence). The hypothesis was confirmed, even though between group differences did not reach significance for all measures. The critical element for these findings is to be found, most probably, in the "active" role of the puppet in the intervention 1 group. Children in this group would carry the puppet across the classroom in order for him to "participate" in the various activities, while at times, children carrying the puppet became the "cyranoid" (Corti & Gilespie, 2014) between the puppet and their classmates or even the teacher, by speaking the puppets' voice, wills and even emotions, an ability which of course requires empathetic skills in the sense of both cognitive and affective empathy. As Remer & Tzuriel (2015) argue what makes the puppets unique as a teaching tool is to be found in their ability to "move" and "speak", as if real humans, and these abilities elicit identification by people "who can see themselves or part of themselves in the puppets" (p. 356).

Hypothesis (f) predicted that positive outcomes on empathy, intergroup threats, IOS and intergroup attitudes will be expected to emerge for both age-groups of children in the two intervention groups, but they will be more profound amongst younger children. When assessing age differences, two possibilities are at play; based on the SIDT it would be expected that more profound changes will be detected in older children, if 5th grade children adhere to unfavourable ingroup norms for the outgroup, whereas if based on findings on empathy development in children, one would expect that older children are more capable to exhibit empathy, with all that this may bring concerning degree of change of outgroup attitudes and behaviours. In this case, empathy induction may be more profound in younger children, after the intervention finishes. Mixed results, indeed highlight the variety and complexity of the many impacting factors that are at play. Results (please see table D6 in the appendix), showed that younger children exhibited significantly more positive overall attitudes and contact intentions, compared to older children, as well as significantly lower levels of threats compared to older children at all times (T1, T2 & T3). In addition, they showed significantly higher levels of positive feelings for both the outgroup and the ingroup. On the other hand, in contrast to the original hypothesis, older children had significantly improved behaviours as indicated by the money allocation task. This behavioural finding is probably the result, not only of the impact of the intervention, but also of older children's capacity to understand better another's needs, which also points to increased levels of empathic concern (Batson et al., 2007), even though no significant age differences were revealed regarding empathy toward the refugees prior to the intervention or right after the intervention had finished. Concerning differences on Grade, findings revealed that 5th Grade children exhibited more stable behaviours compared to younger children, as their measures on T1

and those on T3 were similar, whereas in 3^{rd} Grade children measures on T1 and those on T3 showed greater divergence. This finding could be attributed to the growing stability of attitudes and behaviours with age. Hypothesis (g) that regarded the mediating role of *Empathy toward the* Refugee and Empathetic Sadness, of Group-Esteem Threat and of IOS was partly confirmed. In specific, longitudinal mediation analyses revealed the mediating role of IOS (at T2), between the two intervention groups and both dependent measures (i.e. Attitudes toward the Refugees and Contact Behavioural Intentions at T3). In addition, the mediating role of Empathy Toward the *Refugees* (at T2) was identified only between the intervention 1 group and the two dependent measures (at T3). When difference scores were incorporated in the model full mediation through IOS and Empathy toward the Refugees was only revealed for the intervention 1 group to the two outcome measures. Conclusively, mediation analyses revealed more profound mediation effects in the intervention group that incorporated contact and activities, and this is an expected finding, since the activities part originally aimed at inducing empathy and reducing threats. Thereby, only the mediating role of *IOS* and that of *Empathy toward the Refugees* were confirmed, and this was explicitly indicated with regards to the intervention 1 group.

Finally, hypothesis (h) was partly confirmed since the merits from the intervention were permanent for some of the measures, and were most profound in the intervention 1 group (contact and activities), compared to the other two groups, even though there were a few measures for which the intervention 2 group (mere exposure) was more favourable, compared to the control group. In specific, interaction of *Type of Intervention X Time* showed that there was a significant effect of time of intervention on the two types of intervention, i.e. intervention 1 group had significantly more improved scores on *post (T2) and late (T3) IOS* compared to the

control group. In the comparisons between the two intervention groups results showed that intervention 1 group had significantly improved scores compared to the intervention 2 group at T2 for IOS and on Empathy toward the Refugees at time T3. Lastly, the intervention 2 group had significantly improved scores compared to the control group at T2 (IOS, Group-Esteem Threat, CBI, Attitudes toward the Refugee) and at T3 (CBI). The above results show that not only did the intervention work for both groups compared to the control group, but also that the relevant merits persisted in time (six months later), for some measures. In specific, even though the score on *IOS* dropped in all three groups, still children in the intervention 1 group (contact and activities) scored significantly better compared to the other two groups, and their score, as well as the intervention 2 group score, did not drop below the starting point (pre-measures). Likewise, children in the intervention 1 group scored significantly better on the Empathy toward the *Refugee* measure, compared to the other groups, six months after the intervention took place, and even more importantly, their score on *Empathy toward the Refugee* continued to increase six months after. Regarding the CBI measure results showed that again, even though scores dropped for all groups at T3, yet both intervention groups scored significantly better than the control group, and their scores did not drop below the starting point (T1 pre-measures). Finally, Attitudes toward the Refugee even though dropped from T2 to T3, still they were significantly better for the intervention 1 group compared to the control group, but not for the intervention 2 group. However, even if they dropped, scores of the two intervention groups did not fall below the starting point prior to the intervention, as it was the case for the control group, thus functioning as a buffer towards deterioration of attitudes with time.

The above results give support to the impact that intergroup contact with or mere exposure to a puppet had in improving attitudes toward the refugees, as well as in improving intentions for intergroup contact with that specific outgroup. When contact was achieved through activities of co-operation that aimed at inducing empathy the favourable outcomes were even more sound and appeared to last more in time. Despite the fact that there was a general tendency for most measures to drop (with the exception of *Empathy toward the Refugee* for the intervention 1 group), six months after the intervention took place, still this drop was less evident in the intervention 1 group (contact and activities), followed by the intervention 2 group (mere exposure), and last by the control group, for which scores on all measures had the deepest descent. These results are indicative of the buffering effect which was also found by Liebkind and colleagues (2018) in their late response measures (3 weeks after), as well as by Arnadottir et al. (2018). In particular, the general tendency for attitudes to become worse with time, as illustrated in the control group, may be attributed to the depiction of the refugees in the Greek media, which gradually became more unfavourable. This tendency was also evident in the majority of the late response measures for the intervention groups. However, attitudes in the two intervention groups, 6 months after the intervention took place, appeared to be more stable, as they did not become worse compared to T1 (pre-measures), contrary to the control group.

Conclusively, the positive outcomes from study 2 with regards to their persistence over time can be distinguished into short-term statistically significant effects, long-term effects statistically significant effects and to no effects. In particular, short term benefits were identified within both intervention groups concerning *Inclusion of Other in the Self (IOS)* and on *Attitudes toward the Refugees.* Coming to the very important long-term effects, an increased in *Empathy toward the*

Refugee was identified within the intervention 1 group six months after the intervention had finished. On the other hand, no short-term neither long-term significant positive effects were identified with regards to *Empathetic Sadness, Contact Behavioral Intentions* and *Group-Esteem Threat,* even though there were indications of the buffering effect within both intervention groups for almost all measures (with the exception of measures on the G-E Threat).

Altogether, results from study 2 showed that contact with (and exposure to) a puppet that possesses the identity of a refugee Syrian boy improved primary school children's attitudes, and intentions and also produced more favourable actual behaviours toward Syrian refugee children in general, regardless of the fact that statistical significance was not achieved for all measures. Even though intergroup contact via empathy inducing activities produced the most profound positive outcomes, the most striking finding is that improvements were also detected, though at a lower degree, even when children were only exposed to the puppet (on an everyday basis for a month) without engaging with it in school activities. This finding implies that mere exposure to the puppet was enough to result in familiarizing with the outgroup, and this was also evident in the reduction of intergroup threats (Group-Esteem Threat) posed by the refugee Syrian children outgroup from T1 to T2 measures. This last finding is compatible with the well-established positive relation between intergroup anxiety and prejudice, in that a decrease in anxiety (via reduced intergroup threats) leads to prejudice reduction. It is then very promising to find that mere exposure to the outgroup resulted in such an important alteration in feelings of threats, because that means that with minimum means and effort, an easy to apply intervention, i.e. only by having a puppet with the appropriate story and/or identity, significant results can still occur.

Finally, the positive trends identified within both intervention groups at T_2 and most importantly the buffering effect that held the deterioration of attitudes in both intervention groups at T3, i.e. at a time of a general deterioration in Greece and globally (Glen, Taylor & Dautel, 2020), which was, on the other hand, illustrated in the deepest deterioration within the control group, is a significant and promising finding. In essence, within the control group results on Empathy toward the Refugees and on Contact Behavioural Intentions, became significantly worse from T1 to T3, and this finding is likely to reflect the general negativity that was growing within the Greek society. For example, the increased numbers of refugees' arrivals and of the consequent increase in refugee children attending formal schooling, resulted in a growing distress and in an increase of xenophobic opinions, which were diffused in the public discourse; In October 2018, according to the English online edition of Greek daily newspaper Kathimerini, over 1000 parents sent a legal notice to school principles on the island of Samos "calling for refugee children to have their classes in the island's migrant reception centre and not at the local schools", while they also demanded that the Greek state starts to "assume their responsibilities," and stop expecting parents to "shoulder the burden [of refugee integration]" (Wallis, 2019). Accordingly, Vassilopoulos et al. (2020) argue that the projection of intergroup tensions through any societal channel, may negatively affect the attitudes of Greek children toward refugees. To illustrate the polarization within the Greek society concerning refugees Apostolou (2019) reports evidence from 2018 which show how the refugee issue had become a major political arena between the government and right political parties and how nationalist and racist attitudes were rising in Greece. He also discusses the fact of weekly protests in rural Greece against refugee

relocation where protestors expressed fears of an "ongoing invasion" and the "Islamisation" of the country.

Under the prism of such negative changes promoted within the societal channels in Greece, achieving long-lasting benefits for empathy toward the target outgroup and restraining attitudes deterioration for both intervention groups highlights the effectiveness of the intervention.

Contribution of the present study, Limitations & Future Directions

The intervention in the present study incorporated a novelty in the field of intergroup contact interventions, since it implemented direct contact with a child-sized puppet holding the identity of a Syrian refugee child, who was presented as a new "classmate". By doing so the intervention combined features of face to "face" contact, as well as features of imagined contact, for children had to mobilize their imagination so that to communicate and/or work and play with the puppet. Using real-sized puppets has shown to be especially effective in increasing children's interest to engage, as it sustains their attention for longer periods of time (Matson et al., 1991; Salmon & Sainato, 2002). To illustrate how much children wished to interact with the puppet, some of their comments, along with some examples mentioned by their teachers are being reported in quotation marks here; "We want to stay in the classroom so that we don't let Bahram alone[during session time], "We want to be with Ali [the puppet's name]", "I want to sit next to Hassan" [this was expressed by many children], "We want him [i.e. the puppet], in our team". One of the 5^{th} grade classrooms (intervention 1 – puppet and activities), even wrote a song for their new classmate (please see Appendix D) and sang it to two nearby classrooms (none of which participated in the study). This activity was not included in the activities designed by the research plan, but the teacher in that specific classroom said that she had responded to children's

special request, i.e. to write a song for their new "classmate". One of the teachers in the intervention 1 group (3rd grade) said that two girls that used to express extreme opinions regarding immigrant people in Greece, appeared to be "excessively" worried about their new classmate's (i.e. the puppet) welfare and she was wondering how could that be, and if it was a true alteration in their general ethnic outgroup attitudes. In relation to this consideration, research evidence with adult populations has shown that direct and extended contact is more efficient in improving intergroup attitudes among highly prejudiced people, rather than less prejudiced people (Hodson et al., 2013). Accordingly Hewstone at el. (2014) assert that the negative relationship between extended cross-group friendship and prejudice is consistently stronger for participants with few direct cross-group friends or living in segregated rather than mixed communities (Hewstone et al., 2014). The present study, however, did not control for children's previous quantity or quality of contact with other ethnic groups, rather it only accounted for children's previous contact with Syrian people and relied on the type of school, i.e. the composition of the school population, to conclude on the matter of prior intergoup contact with other ethnic groups. Since intergroup contact is known to play a key role in the formation of outgroup attitudes (Aboud, Mendelson, & Purdy, 2003), future research should directly assess both the quantity and quality of children's previous contact with several other diverse outgroups (Glein et al., 2020). Thereby, it is not clear whether highly prejudiced children (likewise adults), who may have fewer or none cross-group encounters, benefit more, compared to their less prejudiced peers or if children that have increased positive intergroup contact within their school setting, are also more likely to benefit more from contact interventions due to their a priori positive stance. Future research could address the issue of whether research with children

provides similar patterns of attitudes modification, as for adults. Another issue that needs to be clarified in future studies is whether children's responses in the present study were the outcome of their ethnic outgroup attitudes or if the outgroup was classified as a refugee, regardless of the ethnic group the child belonged to and thus children corresponded to the status of a refugee, not that of an ethnic outgroup member. Hence, future studies could simultaneously incorporate several outgroups, i.e. ethnic outgroup children, racial outgroup children, religious outgroup children and refugee children, regardless of their ethnicity, so as to identify in which way are the refugees depicted compared to other outgroups. In other words to identify the precise distinction of refugees and other ethnic or racial or religious outgroups, in children 's minds. They could also include refugee children from different age groups or even young adults, to investigate whether younger outgroups are seen more favourably compared to older outgroups or vice versa.

Besides the ignorance regarding children's cross group friendships, a relevant pitfall of the present study is that no ingroup identification measures were incorporated, which might have helped in explaining the results. Based on research evidence coming from past studies, ingroup identification seams to hold a moderating role in the relationship between features of prejudice reduction interventions and outgroup attitudes. Hence, having incorporated ingroup identification measures, the intervention might have produced different outcomes for individuals who are high identifiers, e.g. they exhibit more negative attitudes for the outgroup on the outset of the intervention, which also might tremendously change after the intervention had taken place (Ireland et al., 2007). Another issue to consider is the fact that the present study assessed the data from studies 1 and 2 only within a quantitative perspective, thus did not provide further information regarding the depiction of the Syrian refugee. Unfortunately, the research being

mainly quantitative in nature, did not account for qualitative information, neither did for potentially valuable interfering elements like parents' opinion on the matter. Further research that will combine qualitative data and quantitative evidence is needed so that to acquire a more holistic depiction of the phenomena under study, and provide first-hand explanations regarding children's reactions to contact with puppets of specific outgroup identities (national or other). In addition, as in study 1, only explicit measures of attitudes for the outgroup were used.

An additional potential confound in the findings of the present study regards the gender of the puppet, since all four puppets were boys' figures. The reason for this choise was that studies show that boys are less likely to be victimized by their peers, compared to girls (Brown & Bigler, 2004), and this possibility had to be rulled out, since it would raise serious concerns for the effectiveness of the intervention. However, the study could have also introduced girl-puppets, along with boy-puppets in each classroom, but this again might had resulted in isolation of the "puppets group", for they would have "each other". Nonetheless, future studies, should focus on finding a proper way by altering the research design and incorporate gender-matched puppets, to rule out the potential intervening of gender stereotypes.

Nevertheless, the present study overcame a traditional barrier in implementing contact interventions within the educational context, i.e. the difficulty to bring together members of diverse groups, either because they live physically segregated or because they are "enemies" - members of opposing groups (Hewstone et al., 2014; Liebkind et al., 2018), while it guaranteed for optimum conditions as described by Allport. In the present study, the intervention created "intergroup interactions" with an outgroup which, even though would be most likely soon become part of the children's everyday reality, yet still children had absolutely no cognition

regarding the refugee and the Syrian refugee identity in particular. By doing so, the intervention prepared the children for future contact on the one hand, and it also offered valuable first-hand knowledge to them, only without running the risk of intergroup anxiety, regarding the specific outgroup (see Hewstone et al., 2014 on potential intergroup anxiety as a result of direct face to face contact with an outgroup). In addition, the present study proves that interventions in real life context can be both achievable and beneficial, and this is very important regarding social psychology in general, since many studies have been carried out in rather benign settings (e.g., contact on college campuses) and a "major thrust of research in social psychology has been to supply evidence from more demanding settings" (Hewstone et al., 2014, p.41).

Another pioneering feature of the intervention described here is the fact that it was classroom-led by teachers, and not researchers as it is the case in the majority of interventions within the educational field and also within the context of the official curriculum, thus it was easily and readily implemented, and can be repeated as such by teachers and/or other practitioners. However, this originality is also a potential confound in the findings, since there was no provision to ensure that all teachers involved followed the guidelines provided by the researcher (as in the case of the intervention 1 5th grade classroom and the song they wrote), nor was there a way to assess teachers' implicit bias, expectations, motivation, even competence in carrying out the intervention. In other words, teachers participating in the study may had not been equally competent in carrying out the pre-ascribed activities. Likewise, they may had not faith in what they were doing with the puppets and that this could actually work, so they did not put serious effort in doing so. As Liebkind et al. (2018) also argue: "the

effectiveness of teacher-led interventions is bound to depend highly on the teachers, their motivation and input during the intervention sessions, and on the relationship between students and their teacher" (p. 83). Any such intervantion in the future should train and engage teachers in more meaningful ways. Ulger et al.'s (2018) meta-analysis, which also included teacher-led interventions, showed that while prejudice reduction interventions delivered by researchers had large effects, those delivered by teachers mostly produced non-significant results. The researchers in that study also discuss the fact that even though teacher-led interventions offer ecological validity, yet they lack strict experimental control over the incorporated procedures, as well as they are always more exposed to teachers' subjectivity. On the other hand, contact interventions that appeared to be very effective in the laboratory, may not be effective in a school context, where students are subjected to a variety of potential disturbances that compete to grasp their attention (Ulger et al., 2018). Despite the problems yield in experimental consistency then, theoretically driven field experiments that are carried out by teachers within the natural real everyday school life course are urgently needed, since they stand more chances of being incorporated, if proved successful, in the school context. Especially when these interventions prove beneficial for current conflictual intergroup relations and discriminatory behaviours, their importance becomes a necessity (Liebkind et al., 2018). Let alone the fact that such interventions can be performed collectively, both at the classroom and the school level, with minimum expenses. Ultimately, researchers-educators collaborations can generate important theoretical novelties (Liebkind et al., 2018).

Using puppets within the classroom context is a pedagogical method not usually adapted in Greek primary schools. However, the present study revealed how using puppets may produce

otherwise far-reaching merits for inducing empathy, for attitudes for the outgroup and intentions for contact with the outgroup. These findings are particularly encouraging, since researchers and educators are urgent to find teaching methods adjusted to specific developmental aspects of early childhood. Teaching that produces substantial knowledge, grasps children's attention, generates motivation and brings enjoyment about in young children is a real challenge in contemporary education (Kroger & Nupponen, 2019; Salmon & Sainato, 2002; Remer & Tzuriel, 2015). Besides offering empirical evidence for applied education, the present study, by implementing puppets in a quasi-experiment, also addresses the theoretical and methodological gap described by Kroger and Nupponen in their 2019 review (for puppet as a pedagogical tool) who argue that there is a need for systematic studies that assess and evaluate the impact of using puppets on learning and teaching. Accordingly, Remer and Tzuriel (2015) argue:

"The effectiveness of using puppets in early childhood has been demonstrated in clinical areas as having the potential to create communication, increase involvement and change attitudes. However, there is limited research literature relating to the use of puppets, as a teaching method, and therefore a methodology based on measurement and evaluation is lacking in this field" (p.356).

In any case, the study incorporated puppets, not only to achieve intergroup contact with an outgroup which could not, by that time, otherwise be reached, but also to persuade empathy through contact with the vulnerable outgroup, by implementing group activities that induce empathy. The focus on empathy is of both a theoretical and of a practical importance since, on

the one hand, not much work has been done in the field of empathy using primary school children samples, e.g. Batson and colleagues' studies have mainly addressed university students, and on the other hand, empathy seems to be going through a crisis season, along with humanitarian values and principles. Recent studies on empathy examined data from 72 separate samples from nearly 14,000 US college students over a 30-year period and found that both forms of empathy (affective and cognitive) have been in decline, which has become even steeper, since 2000 (Krznaric, 2015). Unfortunately, there is a lack of substantial worldwide research evidence so as to compare levels of empathy in other cultures (outside the USA) and in different social contexts and come to safe conclusions regarding the reasons of such deterioration. However, there are some other, equally disturbing data that reveal similar trends of decline concerning alternative indicators that are closely correlated to empathy, as well as measures that show which factors may impact such decline in thought, feelings, and behaviour, like for instance the socioeconomic status of different people (Manstead, 2018). Research evidence reveals that people from wealthy backgrounds have lower empathy levels, as they cannot readily read other people's emotions, compared to less fortunate people, even controlling for gender, ethnicity and religious background (Manstead, 2018). The corresponding question for empathy among children would then regard whether children who come from such backgrounds, and probably attend schools that are situated in highly prestigious neighbourhoods, mirror the same pattern as that of adult populations. Future research should address student populations who live in more privileged contexts and attend analogous schools, in order to determine the bounds of the generalizability of the outcomes of the present study.

Coming to more methodological issues concerning empathy we should underline the fact that the empathy measure used in the present study may not have adequately addressed the level or type of empathy experienced by participants. The same pitfall is also discussed by Glein et al. (2020) who also used affective empathy measures, as the researchers aimed at remaining consistent to Batson's and colleagues' studies. In specific the measures implemented in the present study regarded empathetic sadness and also a two-item assessment used by Turner and Brown (2008) that measures empathy toward the refugee, whereas Batson and colleuges mostly used empathetic concern items. The reason for not using more empathy measures is to be found in the bounds set by the Greek educational authorities which are very strict regarding the length of the questionnaires used within the official schooling timetable. Future studies may use more ingenious comprehensive ways to capture empathy, that will also be child-friendly. As Glein et al. (2020) discuss: "capturing the complexity and multidimensional experience of empathy may provide a clearer picture of its role in attitude formation and out-group-directed prosocial behavior in the future" (p. 82).

The present study, incorporated an intervention which combined features of two distinct types of contact, namely direct contact and imagined contact, in that it yielded students imagination, when attempting to interact with the puppet or imagine how the puppet felt, when for example, the children expressed the wish to stay in during session time and be with the puppet so that the puppet would not feel lonely. The intervention also integrated two distinct conditions, i.e. one that incorporated "contact with the puppet" along with activities that aimed at empathy induction through co-opertion and interaction with the puppet and one that incorporated "mere exposure to the outgroup refugee puppet". However, more combinations of different

intervantions that share the same theoretical background are also important future objectives, since they stand a better chance to satisfy all children's needs, grasp their attention and induce their motivation, thus lead to better results. Multiple-component interventions that introduce multiple tasks, have been shown to produce especcially stronger effects (Beelmann & Heinemann, 2014) and different interventions can potentially add more power, over a single intervention (Vezzali, et al., 2017). Future studies could incorporate additional pedagogical tools, like more systematic narratives that would regard the puppets' life before and after the war or supposed electronic contact with Syrian children who still live in Syria, and investigate not only the direction of attitudes change but also the magnitude of such change across different conditions and groups. Vezzali et al. (2017) argue that coupling a direct contact intervention with an imagined contact intervention can be very different from running the two interventions separately.

Other limitations of the present study have to do with that it would be more beneficial if data from additional schools were also included (same or different types of schools, levels of schooling or urban vs rural schools). Furthermore, the size of the sample in the present study did not allow for more statistical analyses, since there was not enough variance to do so (e.g. within group analyses based on extra grouping criteria, like the SES of the participants, parents' education, gender etc.). Thus, including additional schools would have resulted in increased statistical power. In order to reach to safe conclusions, as well as to allow for more statistical analyses (e.g. within group analyses based on extra grouping criteria) the size of the sample, as well as the variety of school types must be expanded. Future studies should employ data from a larger number of schools to cross-validate the current findings.

Accordingly, the inclusion of a single school also limited the data analysis in another way. Had the research included more than one schools, it would allow for additional comparisons, i.e. to split the schools and have the interventions being carried out by researchers in half of the schools and by teachers in the other half. In this way, the fact, already discussed above, that interventions implemented by researchers are more effective compared to those implemented by teachers, would be further investigated, since such designs would allow for relevant comparisons.

In relation to the research design, the length of the intervention, even though larger than in most studies, still should be revisited in that the actual contact with engaging interacting activities took place only four times (i.e. once a week for a 45-minute course and for four consecutive weeks). Even though the puppet was physically present throughout the whole four weeks, still if more time was allowed for interaction, positive results may had been more profound and last in time more, rather than decline after six months. Liebkind et al. (2018) also highlight the necessity for lengthier interventions and argue that although prejudice-reduction in schools often takes place through single session interventions (Paluck & Green, 2009; Ulger et al., 2018), even the three sessions that occur, in their teacher-led vicarious contact intervention with primary school immigrant children, may not be enough to elicit significant long-lasting results. Nonetheless, the present study accounted for the pervasiveness of the produced results by including pre (T1), post (T2) and late measures (T3) and by doing so it enabled for assessing the directionality of effects. Future intervention studies with children should incorporate late response measures at multiple times, so as to provide a clearer picture of how effective the intervention is, as well as of whether what is left after a period of time is a stronger resistance to

deterioration of unfavourable attitudes for the outgroup and/or behaviours, even if the surrounding context becomes more hostile.

As far as the surrounding context concerns, real-life influences are always high in the list of potential confounding factors for in-school interventions. Moderating environmental conditions include mass media (Vezzali et al., 2014; Bar-Tal & Teichman, 2013), which are considered the primary source of information for people to form impressions of outgroups, especially if there hasn't been any sort of engagement with the specific outgroup. While the present study was taking place, things regarding the depiction of the refugee changed severely; for one their long stay in the camps, along with media reports on everyday delinquent actions and suspicions of Jihadi fighters having penetrated the camps, gave rise to feelings of intergroup threats. Moreover, the fact that there were also migrants staying in those camps had led to a (deliberate or not) confusion regarding the identity of a refugee and that of an immigrant which eventually had resulted in a blur depiction of the refugee. The research design of the present study attempted to partly overcome some pitfalls with the inclusion of a control group which, at least, accounted for the ongoing media discourse, meaning that whatever external impact may have occurred, it was equally projected not only on the intervention groups, but also on the control group. In this way, part of such impact is supposed to have been ruled out. Nonetheless, researchers and practitioners still need to find ways to overcome the negative context influences acknowledging that they are not confined to the school, since they also impact "important others" (parents and close relatives) attitudes, which in turn most likely impact children's' attitudes.

Regarding the implementation of the money allocation task, i.e. a behavioural measure, the present study adheres to a pervasive demand to find ways to induce and assess real-behaviour changes. As Nesdale et al. argue (2005):

"given that practical reconciliation between ethnic groups demands changes in behaviour (e.g., a preparedness to interact, cooperate and share), there is a need for research that addresses the linkage between children's ethnic attitudes and behaviour, in the context of their empathy toward ethnic minority group members" (p. 635).

The present study did address the linkage of attitudes change and behavioural traits in the demanding school context of a country that undergoes numerous challenges itself. Results showed that children in the intervention group that implemented contact with a puppet along with empathy-inducing activities (intervention 1) tended to allocate more money to the Syrian refugee outgroup, followed by children in the mere exposure group (intervention 2), and then by the control group. This favourable behaviour was only significant for the intervention group that integrated "active participation" of the puppet through the actions and voice of the children within that group and through empathy inducing activities. In addition, such difference was more profound among older children, probably as a result of their increased ability to consider outgroup needs and adhere to them with empathy. Even so, the amount allocated by the intervention group that was only exposed to the puppet, without meaningful and quality contact, still indicates a strong positive trend, which might have been revealed had the study included a bigger sample. However, behaviours were not measured at T1 or at T2, thereby any claims for behavioural change are only based on changes in attitude trends, i.e. children might had been positive in allocating money for the refugees, irrespective of the intervention. In addition, cost-

benefit considerations play a role when deciding whether or not to engage in a specific behaviour. A person may hold a favourable view of another, but choose not to help, if this comes at a cost to themselves or to others (Batson, 2011). Furthermore, the group membership of the recipient is also known to be a contributing factor in the decision to engage in helping behaviours for both adults and children (Levy & Killen, 2008; Taylor & Hanna, 2018; Taylor et al., 2014). Studies aimed at improving children's attitudes toward outgroup members have often found discrepancies between improvements in attitude and increases in prosocial behaviour (Aboud et al., 2012). In the specific scenario used in this study, even though children did not have something to earn, by not allocating more money to the Syrian refugee, still group membership of the other four competing groups in need, i.e. their "Greekness" may have impacted children's decision not to allocate more money for the refugee's welfare. In other words, allocating more money to the refugees would automatically mean a cost to others, i.e. the remaining competing ethnic ingroups which were also in need. Accordingly, Rutland and Killen (2017) argue that fairness, recipient's need, and group loyalty play a role in children's resource allocation. For example children's decision not to allocate money for the dance club, is probably the outcome of the evaluation of that group's need, as inferior, compared to other groups.

Altogether the present study found evidence of the impact of mere exposure to a puppet at improving attitudes toward the Syrian refugee and intentions for future contact with the specific outgroup. When contact was achieved via empathy induction activities positive outcomes were more profound. More importantly, the study found evidence of real behavioural positivity among primary school children and this is a very promising finding, since it responses to a fundamental request set by scholars within the social sciences, i.e. that of finding ways to achieve behavioural

changes over and above attitude changes. However, since the study was based on a quasiexperimental design, causal inferences must be made with caution, due to the potential uncontrolled variables that may have confounded these results.

CHAPTER 5: GENERAL DISCUSSION

Do you know me dear woman? I asked her. She looked at me in surprise. Child, do I need to know you to treat you? You are a human being. I am a human being. Isn't that enough? (Kazantzakis, 1982, p.148).

The majority of educational systems worldwide do indeed focus, not only on the cognitive aspects of children's development, but also on the social development of children, as the vehicle to promote peaceful co-existence and respect of human rights. Focusing on our basic shared characteristic, over and above anything else, i.e. our humanity, seems to be a promising path in overcoming stereotypes and prejudicial attitudes and behaviors, since the perceived ingroup can potentially expand toward all groups of people. However, it is not an easy task to achieve; that is to say, that several conflictual factors tend to influence the development of ingroup identity in a variety of discriminatory ways, and it takes deliberate, persistent and early intervention to prevent it from happening.

The Greek official curriculum for the primary school, like numerous other respective national curriculums, declares its orientation toward inclusive education, respect for diversity, respect to children's rights and provides general guidelines toward this direction (e.g. the adaptation of the *Compass* guidelines, co-operation with the Institute for Rights, Equality and Diversity, etc.). However, and despite this pursuit, prejudice and social exclusion among children is prevalent. Of course, the fact that children do exhibit intergroup biases and prejudice is well established (e.g. Aboud, 1988; 2003, Abrams & Killen, 2014), but the mechanisms through which these procedures take place and develop across different contexts, still need to be

unlocked, so as to prevent them and, instead, promote positive attitudes for the outgroup and behaviors toward refugees (Glen et al., 2020) and other outgroups. School is the first structured micro-society for young children and interactions that occur within the school context may potentially impact children's social development in a decisive manner. Intercultural education and SEL aim at promoting empathy and inclusion of the other in the self and should therefore be implemented in the school curricula in a precise, consistent way.

When it comes to the specific outgroup, i.e. the refugees, the urgency of finding ways for successfully integrating them into the receiving societies is more profound than ever, since the world today counts more than 25 million of refugee people (UNHCR, 2019). Research addressing the specific outgroup and the way it is depicted by children is, however, scarce (Glein et al., 2020). Let alone the fact that the majority of research in prejudice, as well as on contact research, in general, is based on cross-sectional designs, thus is less informative, regarding real causal relations (Hewstone et al., 2014). In addition, scholars highlight the necessity for more longitudinal experimental studies, preferably over several waves, that would investigate multiple mediators and different outcomes (Hewstone et al., 2014).

The present research work consists of two separate studies. The first is a cross-sectional study that aims at identifying the prevalent attitudes toward Syrian refugee children, through examining children's multicultural attitudes, empathy, inclusion of other in the self and feelings of threats. The first study is important in offering a benchmark for information lacking, since such studies have not yet been extensively conducted in Greece, even though the country is high in the list of the host countries in Europe. More importantly, the proposed SEM model in study 1 is a comprehensive model which appears to adhere to the complexity of the underlying

mechanisms that shape children's attitudes for the outgroup and contact intentions. The model being group invariant at a very satisfying level, whilst also being highly informative with the inclusion of four mediating factors, offers an insight in explaining the development of attitudes for the outgroup in children. In specific the underlying mediators between aspects of the school climate and intentions for intergroup contact, as well as attitudes toward the refugees, regard empathy, inclusion of the other in the self and feelings of threats posed by the refugee outgroup to the ingroup. Implementing aspects of the school climate offers a new perspective in studying prejudice and attitudes for the outgroup, since school climate had not been, to our best knowledge, explicitly related to these constructs in the past.

The outcomes of the present study first indicated that primary school children held a generally positive stance towards Syrian refugee children. They were also revealing of the important role perceived school climate may have on children's empathy, attitudes for the outgroup and intentions, as well as on feelings of threats posed by ethnic outgroups. It seems that ethnically heterogeneous schools, may not only promote intergroup contact and reduce intergroup anxiety and feelings of threats, but they are also perceived by their students more positively regarding aspects of the school climate, and this finding must be further addressed in future studies so as to identify its unique effect. Future studies should assess perceived school climate in a more comprehensive way, so as to identify other potential hidden correlates (e.g. teachers' competence or children's ethnicity in a more consistent way) to prejudice and intergroup contact and come up with more profound results.

Results from the present study are only limited in revealing that children in the participating heterogeneous schools appreciated their school climate more positively, which had an impact on

their levels of trait empathy and on increased inclusion of the other (outgroup) in the self, which in turn resulted in increased intentions for contact with the Syrian refugee children and to more positive attitudes toward them. However, further analyses showed that some of these results are to be attributed to the children's migrant ethnic background, rather than the type of school they attended. These findings should be read with findings in the intercultural education field in Greece, which illustrate how, even heterogeneous schools in Greece, even though are theoretically following an intercultural orientation, yet in practice this is not carried out in a comprehensive way, such as to be possible to be assessed. The absence of a well-organized intercultural curriculum for schools with high cultural / ethnic diversity results in isolated scrappy interventions that lack consistency and reliability, and which of course cannot be assessed for their true effectiveness over time. Likewise, in the present study, it is not clear whether positive outcomes in the heterogeneous schools are the result of increased intergroup contact or of intercultural school activities.

Accordingly, *Type of School* was not included in the final SEM model, in study 1, since it correlated very poorly with the other measures included in the model (*figure 4*). Furthermore, correlations between measures were similar across both schools (table 13). School climate, on the other hand, was represented in the model through two constructs, namely the *Social & Civic* construct and the *Student-Student Relations* construct, as these two measures significantly impacted *Contact Behavioural Intentions* and *Attitudes toward the Refugees* directly (model 2) and through *Inclusion of the Other in the Self, Empathy toward the Refugees, Empathetic sadness* and *Group-Esteem Threat* (model 3), thus confirming the combined mediating role of threats, of empathy and of IOS, for prejudice, as already illustrated by previous studies (Pettigrew & Tropp,

2006; Davies, 2011; Zhou et al., 2019). In addition, *Student-Student Relations* had a significant effect on both outcome variables, namely *Attitudes toward the Refugee* (.50) and *Contact Behavioural Intentions* (.35) and *Social and Civic Learning* had also a significant moderate effect on each of the two dependent variables (.27 on *Attitudes toward the Refugees* and .34 on *CBI*), prior to the inclusion of the mediators in the model (model 2, please see Appendix B).

In short, the present study introduced the idea of including measures of the school climate as predictor variables of attitudes for the outgroup and prejudice, as it is argued that the school climate determines the development of shared meanings and shared representations that inevitably impact what is referred to as the school norms. The school norms concern a variety of issues integrated in the school life; some of these being intergroup relations, or who is perceived as the ingroup and who as the outgroup, or ingroup and outgroup attitudes. Overall, the first study provided strong indications of how aspects of the school climate impact empathy induction, inclusion of the other in the self and threat reduction in improving attitudes for the outgroup. The intervention study that followed study 1 was then accordingly designed so as to promote intergroup contact with the Syrian refugee children outgroup, to induce children's empathy toward refugees and to expand the idea of the ingroup (or the self) so as to include outgroups and by doing so to reduce feelings of threats.

Positive intergroup contact with the outgroup is a promising avenue for prejudice reduction, thereby study 2 was based on a new form of intergroup contact that had never been used before; face to "face" contact with a child-size puppet holding the identity of a Syrian refugee child. In doing so, the second study endeavoured to challenge the limitations of cross-sectional research, i.e. to incorporate an intervention that would also include post and late measures. In

addition, the second study addressed another limitation that is oftentimes reported by scholars (see Hewstone et al., 2014, Pettigrew and Tropp, 2006); the connection of attitudes, or intentions to real behavioural outcomes. Furthermore, the second study dealt with the issue of intervening in naturally occurred contexts, under real life circumstances, like within a primary public school.

Results after the intervention, revealed that contact with the puppet improved children's attitudes toward the refugees, as well as it improved children's intentions for future contact with the Syrian refugee children. The mediating role of empathy toward the refugees and of IOS, was also revealed in the second study, thus supporting the outcomes of the first study. Results were more profound for the intervention group that had contact with the puppet matched with activities that aimed at empathy induction and less evident for the group that only had mere exposure to the puppet.

Even though, six months after the intervention had finished, results coming from late response measures indicated that the produced merits had dropped compared to measures right after the intervention had finished, in all three participating groups for the great majority of the implemented measures, still the pattern was revealing of the buffering effect, that had been also found in other longitudinal intervention studies (Vezzali et al., 2015; Liebkind & McAlister, 1999), while *Empathy toward the Refugees* measured at *T3* continued to increase and was significantly higher in Intervention 1 group compared to the control group. Altogether, children's scores in the group that the intervention had the most effective impact on (contact and activities group) dropped just above the pre-intervention level for four out of the six measures, thus they did not get worse at a time where scores in the control group had got worse compared to their scores on pre-intervention measures. In essence, their increased empathy for the refugees was

preserved, 6 months after the intervention had finished. In the intervention group that had only mere exposure to the puppet, results also showed a recursion back to the starting point (prior to the intervention), just above the pre-measures level, which was not statistically significant, compared to pre-measures. Results in the control group became worse compared to their original scores and was indeed significantly worse for *Empathy toward the Refugees* and for the *CBI*.

Both studies found evidence of the impact of children's age, with younger children's scores indicating significantly more favourable attitudes toward the refugees in the majority of the measures included in study 1 and study 2 (please see table C6 in appendix C for study 2). This finding is consistent to the hypothesis set in this research work, which was based on SIDT and suggested that children with age tend to adhere to ingroup norms (probably less positive in this study), whereas younger children base their decisions more on fairness and justice (Killen & Rutland, 2011; Rutland & Killen, 2017). On the other hand, these findings in relation to study 2, may be attributed to the basic means incorporated, i.e. a puppet which might had been evaluated as "too childish" by older children, thus resulting in them not being able to identify with it.

Age differences in the present studies however, are not illustrative of negativity displayed by older children, as general attitudes were favourable in both age groups. Nonetheless, the direction of age differences may also be indicative of the importance of the context in conjunction to the identity of the target outgroup. In other words, these findings challenge the universality of prejudice development in children and suggest that contextual factors are more decisive than developmental ones. Had the outgroup been a different one, e.g. one with a historically burdened identity for the Greeks, results might had been in line with Aboud's theory on prejudice in children, with younger children displaying higher prejudice, compared to older

children, since they might had been more informed regarding a familiar resented outgroup. Likewise, the Greek context may be more favorable towards the refugee identity, because of the country's long history of similar common past refugees' experiences, which may have resulted in increased degree of identification with the specific outgroup. Greeks' general more positive stance, compared to other European people was also found in Dixon, Hawkins, Juan-Torres, & Kimaram (2019) who attribute it to a culture of solidarity and compassion. This account would explain the general positivity in all children and may also be verified by the important role IOS had in the two studies as a mediator (a full mediation in study 2) in the relationship between school climate and attitudes, as well as between intervention and attitudes.

Similarly, the increased role of empathy was highlighted in both studies, proving the significance of assessing empathy in children in studies of prejudice. This also points out to the relevance of the IET, which underlines the important role of emotions (e.g. empathy) in understanding prejudicial opinions and attitudes. Emotions are also very closely related to feelings of threats, since threats produce negative emotions like intergroup anxiety and negative stereotypes. The above foundational lines of respective theories are profoundly related to the S.R. theory and to theories of Social Identity. Thereby, it only makes sense to try to consider all these elements when studying prejudice in children, since years of research have proven their impact on prejudice, even though they had not simultaneously been investigated for their combined contribution in studying prejudice.

The theories and findings discussed so far seem to converge to specific crucial aspects of prejudice development, i.e. that it is about group processes, that self-identification with the ingroup is a crucial element, that IOS and Empathy have been repeatedly found to hold a

mediating role between contact and prejudice and that they all acknowledge the interplay of S.R. and prejudice, as well as that of the impact of the surrounding context. Given that at present no one theory can fully explain the development of intergroup attitudes in children (Rutland, 2004), it seems appropriate to implement a multidimensional approach when studying prejudice in children

What is, then, proposed in this thesis is to collectively combine as many as possible theoretical lines when studying prejudice in children, so as to respond to the multifaced nature of the phenomenon and also to do so in combination to aspects of the school climate. Dimensions of the school climate may shed light to the degree of impact of each contributing factor in prejudice development separately and in conjunction to other factors. It is very likely that prejudice in children is also impacted by a number of other factors, that are unrelated to the school life and the school context. Yet, these factors cannot be easily altered. For example, it is not easy to design in-family large scale interventions. On the other hand, in-school interventions can be collectively carried out and thereby they make more sense, since prejudice is of a collective nature, as Social Identity theories have shown. Future studies of prejudice in children, should thereby systematically examine the school climate.

In any case, altogether the above findings highlight the necessity for early intervention, before children begin to attribute more importance to potential negative ingroup norms. In contrast to Social-Cognitive Developmental Theory (Aboud, 1988) and in accordance to the outcomes of the two studies here, Rutland (2004) argues that in childhood and adolescence ingroup norms play a more decisive role in prejudice reduction, compared to developmental factors, therefore intervention should aim at improving ingroup norms even amongst younger

children. Incorporating intergroup positive contact works through inducing empathy for the outgroup and increases inclusion of the outgroup in the self, thus reduces intergroup anxiety and threats, since the outgroup is depicted as a potential ingroup member, through the mechanisms of increased IOS.

More importantly, whole-school interventions are needed to impact the development of shared representations so as to include the other in the self and expand the boundaries of the ingroup, as well as to promote positive school climate, which in turn appears to impact intergroup relations and outgroup attitudes and intentions (Galinsky & Moscowitz, 2000). A school that explicitly favours intergroup interactions and welcomes, even better celebrates diversity, satisfies all four Allport's (1954) conditions for positive intergroup contact, namely support by social and institutional authorities, common / shared goals, equal status (within the interaction situation) and intergroup co-operation. The emotional geographies (Ahmed, 2004; Zembylas, 2011; Kenway & Youdell, 2011), as well as Mackie's and colleagues' Intergroup Emotions Theory (2008) mentioned in the literature review section, can both be used to highlight the power of the school context within and outside the classroom in formulating collective social representations of various outgroups, by promoting or neglecting empathy, intergroup contact; social emotional learning in general. Thus, in-school early interventions with young children, that incorporate social emotional learning agendas may prove to be essentially effective in preventing the development of prejudicial attitudes among children, which in turn may prove extremely valuable for their future intentions and behaviours toward several other outgroups.

The development of positive norms for the outgroup seems to be directly linked to the core elements of intercultural education. Intercultural education is a promising path in enhancing

positive ingroup norms toward various outgroups and therefore should be directed towards this goal. Educating children to hold positive attitudes toward people coming from diverse environments should take place early, ideally occur in parallel with the beginning of the child's school life. In the present thesis positive feelings for both the ingroup and the outgroup were higher among 3rd grade children, compared to 5th grade children. These feelings are considered to be an indicator of ingroup identification and love on the one hand, without being accompanied by outgroup dislike on the other hand. They may also be revealing of moral decision making on who to exclude or like (Killen & Rutland, 2011) which exceeds ingroup norms at this stage, whereas 5th grade children may have exhibited lower levels of positive feelings for the outgroup as a result of perceived less favourable ingroup norms for the specific outgroup.

Study 2 introduces a pioneering contact intervention, i.e. contact with a puppet that holds the identity of a Syrian refugee child, which combines features of direct face to "face" contact and of indirect contact, through actively engaging children in expressing the viewpoint of a refugee child of their age. Results highlight the effectiveness of this new perspective in contact research, by showing its impact on empathy induction, on IOS and on Group-Esteem Threat, as well as on outgroup attitudes, on intentions for future contact and ultimately its potential effectiveness in promoting helping behaviours towards the outgroup.

However, as illustrated throughout this thesis, the impact of contextual factors in such studies must be considered, even though they cannot be fully assessed. The study was conducted at a time when only some schools in Greece had enrolled Syrian refugee children, since the 2017 permission for the Refugees' enrolment in local (Greek) elementary schools (Vassilopoulos et al., 2020) was not immediately transformed into action and a year after, more than half of

refugee children were not vet enrolled in the normal morning schooling program (Wallis, 2019). In any case, by the time the intervention had started, the Greek media discourse had focused on the managerial aspect of the refugee crisis and the critical issue of child refugees (Fotopoulos & Kaimaklioti, 2016), thus it was a familiar theme in everyday discourse. A pilot program (in 2016) which promoted the first enrolment of refugee Syrian children in a primary school in Attica, was also prevalent in media discourse, followed by parents' protests in the following months whenever a new school was ready to welcome refugee children. On the other hand, the media also presented teachers' positive stance on that matter. In the years to follow, another matter in the Greek media discourse focused on the problem of educating refugee children hosted in the Greek islands for whom access in formal education was a challenge, and with the opening of "non-formal education centres" on the islands of Kos, Chios and Leros. Kos centre had opened its doors in April 2018, (Wallis, 2019), i.e. during the same time the intervention had started. Thereby, children who participated in the intervention study, and most likely older children, are likely to have witnessed polarisation regarding the possibility of having Syrian refugee children in their school, either coming from their families, by their teachers or by other societal channels. However, these influences were not investigated in this research, thereby no inferences can be made, regarding their potential impact on children's attitudes.

In conclusion, aiming at positively changing the attitudes and behaviours of host-society children toward refugees is a tricky multifaced task. Nonetheless, it is of paramount importance, first because children's attitudes do not have the established, rigid nature of adults' stereotypical attitudes and behaviours and second and more importantly because children of today are the agents of future change (Glen et al., 2020) and they should be seen as social actors that do have

influence (IANYD, 2016; UNICEF, 1989). "The relationships built during childhood, serve as the building blocks for future generations" (Glein et al., 2020, p.72). Practical reconciliation between ethnic or racial groups requires alterations in the social representations of the outgroup, as well as changes in intentions and behaviours, i.e. a will to communicate, interact, co-operate and share with the outgroup.

The present thesis investigated the effectiveness of a school-based prejudice-reduction intervention within the Greek primary school context. The target-outgroup was that of Syrian refugee children. To our best knowledge, there has only been another such research work within the Greek primary school, that of Vassilopoulos et al. (2020) who also incorporated same measures, as in study 2 here, for empathy towards the refugees and for attitudes toward the refugees. Their findings are in accordance with findings of this research concerning empathy induction and prejudice reduction, along with improvement in attitudes toward the outgroup. As Beelmann and Heinemann (2014) explicitly showed, through their meta-analysis work, the most successful prejudice-reduction programs are those with a well-structured agenda that include an effective empathy and perspective taking element. The school setting, and the class context in specific, excel these standards. Combined results from the present work and the work of Vassilopoulos and colleagues signify the importance of in-classroom group work as a valuable first step in dealing with prejudice among children, while they also establish an easy to implement method to promote a positive stance toward minorities; refugees, asylum seekers or any other discriminated group of people. Corresponding programs could be implemented in the Greek official primary school curriculum and be further enhanced within the wider goals of

intercultural education. In addition, findings from the present intervention study could be used to

facilitate the engagement of refugees into pre-existing societies worldwide.

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APPENDIX A: The Questionnaire of Study 1

1.	Questionnaire for Children that live in Greece
PART A: Demographics	
Age: Cou	intry I was born:
Country of origin: Mother:	Father:
Languages spoken in my hor	ne:
My grandparent's residence	
Check the appropriate box.	Boy Girl
PART B	
1. How many times have yo	u come across with a refugee from Syria? (<i>Please circle accordingly</i>)

	Never	A few times	Some times	Many times	All the time
At School / within school	1	2	3	4	5
In my neighbourhood / in the park	1	2	3	4	5

2. Below you will read about a group of people who have recently settled in Greece, because there is a war going on in their country (Syria). These people are called refugees. Read carefully and circle the number that best represents your opinion in the statements below. There are no right or wrong answers, nor will anyone know what you have answered.

	1= Completely	2=Mostly Disagree	3= Neither Agree or	4=Mostly A	tly Agree		5=Completely		
	Disagree		Disagree			Agr	ee		
Refugees	s need help from th	ne Greek state.		1	2	3	4	5	
Refugees	s need medicines fr	rom the Greek state.		1	2	3	4	5	
Greece c	an help the refuge	es.		1	2	3	4	5	
There ar	e a lot of jobs in Gr	eece for everyone.		1	2	3	4	5	

Refugees will throw trash in the city.	1	2	3	4	5
There will not be enough space for everyone to live in Greece.	1	2	3	4	5
Greater poverty will increase in Greece.	1	2	3	4	5
Greek citizens will start to abandon the country.	1	2	3	4	5
Refugees need help: food and money.	1	2	3	4	5
Refugees need friends.	1	2	3	4	5
Refugees love Greece.	1	2	3	4	5

3. What do you think will happen when the Syrian refugee come to the Greek schools?

**Refugee children will like the Greek schools.	1	2	3	4	5
All children can be friends.	1	2	3	4	5
*Christians can be friends with Muslims.	1	2	3	4	5
The Greek schools will become better.	1	2	3	4	5
There will be a lot of fighting within schools.	1	2	3	4	5
All children will become more easy-going	1	2	3	4	5
School events / celebrations will be better, because children from different countries will be involved.	1	2	3	4	5

* This item was dropped from further analysis

**This item was combined with item 11 on the perceived threats scale and together they were assessed as the Group-Esteem Threat construct.

4. Below is something that looks like a thermometer. We call it a 'feeling thermometer' because it measures your feelings towards groups. Here's how it works. If you don't know too much about a group, or don't feel particularly warm or cold toward them, then you should place them in the middle, at the 15 degree mark. If you have a warm feeling toward a group, or feel favourably toward it, you would give it a score somewhere between 50 and 100 depending on how warm your feeling is toward the group. On the other hand, if you don't

feel very favourably toward some of these groups _ if there are some you don't care for too much _ then you would place them somewhere between the 0 and 15 mark.

Refugee Syrian children 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Children who live in Greece and whose parents are Greek citizens 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

5. Now state how much you agree with the statements below.

I like refugees.	1	2	3	4	5
Refugees are good people.	1	2	3	4	5
I like the perspective of having refugee children in my classroom.	1	2	3	4	5
I like to play with the refugee children in the courtyard of the school.	1	2	3	4	5

6. State how much you agree with the statements below. They all regard your school.

In my school, adults teach me how to show feelings in proper ways.	1	2	3	4	5
In my school, we learn ways to solve arguments so that everyone can be happy with the result.	1	2	3	4	5
In my school, we talk about how our actions make others feel.	1	2	3	4	5
In my school, we talk about ways to be a good person.	1	2	3	4	5
In my school, we talk about what is right and what is wrong.	1	2	3	4	5
In my school, we talk about why it is important to understand our feelings and the feelings of others.	1	2	3	4	5
Teachers in the school are fair about making sure that all students follow the rules against physically hurting other people.	1	2	3	4	5
Teachers in the school will stop students if they see them physically hurting each other (for example, pushing, slapping, or punching).	1	2	3	4	5
In my school, there are clear rules against insults, teasing, harassment, and other verbal abuse.	1	2	3	4	5

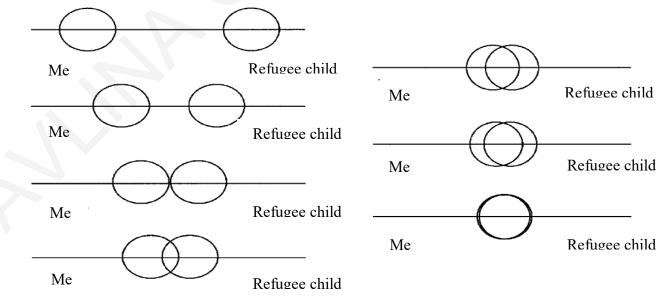
Teachers in the school are fair about making sure that all students follow the rules against insults, teasing, harassment, or other verbal abuse.	1	2	3	4	5
In my school, there are clear rules against physically hurting other people (for example, hitting, pushing, or tripping).	1	2	3	4	5
Teachers in the school stop students if they see them insulting, teasing, harassing, or otherwise verbally abusing other students.	1	2	3	4	5
Students at my school will try to stop students from insulting or making fun of other students.	1	2	3	4	5
Most students in my school try to treat other students the way they'd want to be treated.	1	2	3	4	5
Students generally work well with each other even if they're not in the same group of friends.	1	2	3	4	5
Students try to make new students feel welcome in the school.	1	2	3	4	5
Students in this school respect each other's differences (for example, gender, race, culture, etc.).	1	2	3	4	5
Very few students insult or make fun of other students.	1	2	3	4	5
Most students in my school act in a way that is sensitive to the feelings of other students.	1	2	3	4	5
7. State how much you agree with the statements below.					
It must be scary for refugees when they arrive in a new country	1	2	3	4	5
We should be nice to refugees and help them settle in.	1	2	3	4	5
It makes me sad to see a child who can't find anyone to play With.	1	2	3	4	5
Seeing a child [girl/boy] who is crying makes me feel like crying		2	3	4	5
	1	_			
I really like to watch people open presents, even when I don't get a present myself.	1	2	3	4	5
	-		3 3	4 4	5 5
present myself.	1	2			
present myself. Sometimes I cry when I watch TV.	1	2 2	3	4	5

8. Imagine that a refugee child arrives to your class. If you are a boy, imagine that the refugee child is a boy, and

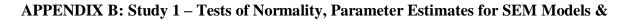
if you are a girl imagine that the child is a girl. State how much you would like to have hove contact with him/her.

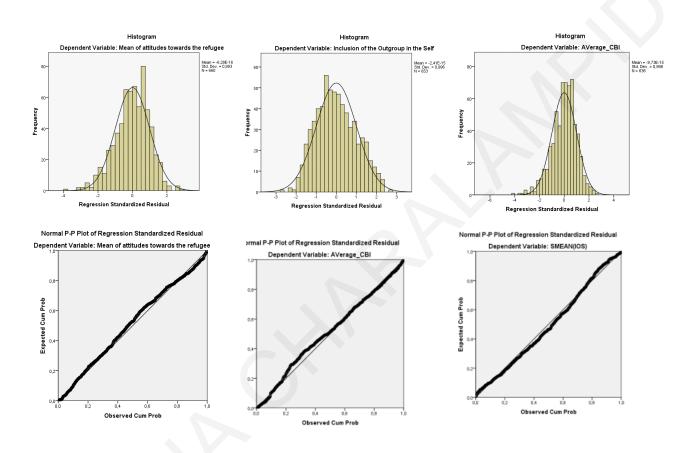
1=Comple	etely Disa Disagree	3= Neither Agree nor Disagree	4=Mos Agree	tly	5=C Agre	ompletel ee	у
1. I wou	uld like to play with him/her		1	2	3	4	5
2. I will	like the new classmate.		1	2	3	4	5
3. I'll in	vite the new classmate to m	ny house to eat and play.	1	2	3	4	5
	ould like to hang out with on time.	n the new classmate during	g 1	2	3	4	5
	uld like to hang out with noon.	n the new classmate in the	e 1	2	3	4	5
6. I wou	uld like to meet him/her to i	my friends.	1	2	3	4	5
7. Iwou	uld like to sit next to him/he	r in the classroom.	1	2	3	4	5

9. Use the charts below to show what you would like your relationship to be with the new refugee child. Remember that if you are a boy, the refugee child is a boy, whereas if you are a girl, the refugee child is a girl. Choose <u>only one</u> of the 7 charts.



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Invariance Studies

Figure B1: 1: Screening procedures – Tests of Normality (Plots)

Study 1: Unstandardized, Standardized, and Significance Levels for Model 2 in Figure 2

(Standard Errors in Parentheses; N = 660)

Parameter Estim	ate		Unstandardized	Standardized	Р
Measurement Model E	Estimat	es			
Social & Civic Learning	\rightarrow	CSCI1	1.00	.55	.00
Social & Civic Learning	\rightarrow	CSCI2	.89 (.08)	.48	.00
Social & Civic Learning	\rightarrow	CSCI3	1.15 (.09)	.68	.00
Social & Civic Learning	\rightarrow	CSCI4	1.11 (.09)	.70	.00
Social & Civic Learning	\rightarrow	CSCI5	1.05 (.09)	.61	.00
Social & Civic Learning	\rightarrow	CSCI6	1.40 (.11)	.70	.00
Rules & Norms	\rightarrow	CSCI7	1.00	.59	.00
Rules & Norms	\rightarrow	CSCI8	.89 (.08)	.50	.00
Rules & Norms	\rightarrow	CSCI9	1.03 (.08)	.63	.00
Rules & Norms	\rightarrow	CSCI10	1.31 (.10)	.75	.00
Rules & Norms	\rightarrow	CSCI11	.79 (.07)	.54	.00
Rules & Norms	\rightarrow	CSCI12	1.08 (.09)	.62	.00
Student-Student Relations	\rightarrow	CSCI13	1.00	.52	.00
Student-Student Relations	\rightarrow	CSCI14	1.01 (.10)	.52	.00
Student-Student Relations	\rightarrow	CSCI15	1.12 (.11)	.59	.00
Student-Student Relations	\rightarrow	CSCI16	1.24 (.11)	.68	.00
Student-Student Relations	\rightarrow	CSCI17	1.19 (.11)	.64	.00
Student-Student Relations	\rightarrow	CSCI18	.99 (.11)	.48	.00
Student-Student Relations	\rightarrow	CSCI19	1.19 (.11)	.62	.00
Error in CSCI1			.89 (.05)		.00
Error in CSCI2			1.01 (.06)		.00
Error in CSCI3			.59 (.04)		.00
Error in CSCI4			.48 (.03)		.00
Error in CSCI5			.70 (.04)		.00
Error in CSCI6			.79 (.05)		.00
Error in CSCI7			.67 (.04)		.00
Error in CSCI8			.84 (.05)		.00
Error in CSCI9			.56 (.04)		.00
Error in CSCI10			.47 (.04)		.00
Error in CSCI11			.53 (.03)		.00
Error in CSCI12			.66 (.04)		.00
Error in CSCI13			1.17 (.07)		.00
Error in CSCI14			1.17 (.07)		.00
Error in CSCI15			1.00 (.06)		.00
Error in CSCI16			.76 (.05)		.00
Error in CSCI17			.88 (.06)		.00



Error in CSCI18			1.37 (.08)		.00
Error in CSCI19			.94 (.06)		.00
Error in CBI			.32 (.03)		.00
Covariance Social & Civic			.28 (.03)	.77	.00
Learning and Rules & Norms					
Covariance Social & Civic			.25 (.03)	.67	.00
Learn. and Student Rel.					
Covariance Rules & Norms			.26 (.03)	.62	.00
and Student Relations					
Structural Model					.00
Social & Civic	\rightarrow	CBI	.58 (.13)	.34	.00
Social & Civic	\rightarrow	Att. Ref	.44 (.13)	.27	.00
Rules & Norms	\rightarrow	CBI	34 (.15)	20	.019
Rules & Norms	\rightarrow	Att. Ref	18 (.15)	11	.205
Student-Student Relations	\rightarrow	CBI	.81 (.11)	.50	.00
Student-Student Relations	\rightarrow	Att. Ref	.53 (.10)	.35	.00
<i>Note:</i> χ 2 (176) = 280.372, p <	.001	; CFI = .92	75; $SRMR = .33; H$	RMSEA = .033	

Table B2

Study2: Unstandardized, Standardized, and Significance Levels for the Proposed Model (Model

3) (Standard Errors in Parentheses; N = 660)

Parameter Esti	mate		Unstandardize	Standardized	Р
			d		
Measurement Model	Estin	nates			
Social & Civic Learning	\rightarrow	CSCI1	1.00	.53	.00
Social & Civic Learning	\rightarrow	CSCI2	.89 (.09)	.46	.00
Social & Civic Learning	\rightarrow	CSCI3	1.20 (.10)	.69	.00
Social & Civic Learning	\rightarrow	CSCI4	1.13 (.10)	.69	.00
Social & Civic Learning	\rightarrow	CSCI5	1.09 (.10)	.61	.00
Social & Civic Learning	\rightarrow	CSCI6	1.46 (.12)	.70	.00
Student-Student Relations	\rightarrow	CSCI13	1.00	.51	.00
Student-Student Relations	\rightarrow	CSCI14	1.01 (.11)	.51	.00
Student-Student Relations	\rightarrow	CSCI15	1.14 (.11)	.59	.00
Student-Student Relations	\rightarrow	CSCI16	1.27 (.11)	.68	.00
Student-Student Relations	\rightarrow	CSCI17	1.18 (.11)	.62	.00
Student-Student Relations	\rightarrow	CSCI18	.99 (.11)	.48	.00
Student-Student Relations	\rightarrow	CSCI19	1.21 (.11)	.63	.00
Error in CSCI1			.92 (.06)		.00
Error in CSCI2			1.02 (.06)		.00

Error in CSCI3			.57 (.04)		.00
Error in CSCI4			.49 (.03)		.00
Error in CSCI5			.70 (.04)		.00
Error in CSCI6			.77(.05)		.00
Error in CSCI13			1.18(.07)		.00
Error in CSCI14			1.18(.07)		.00
Error in CSCI15			1.00(.06)		.00
Error in CSCI16			.75(.05)		.00
Error in CSCI17			.91(.06)		.00
Error in CSCI18			1.38(.08)		.00
Error in CSCI19			.93(.06)		.00
Error in CBI			.48 (.09)		.00
Covariance Social & Civic			.24 (.03)	.62	.00
Learn. and Student Rel.					
Error CSCI1	\rightarrow	Error	.18(.04)	.18	.00
		CSCI2			
Error CSCI18	\rightarrow	CSCI19	.35(.05)	.30	.00
Structural Model					.00
Social & Civic	\rightarrow	IOS	.69 (.18)	.18	.00
Social & Civic	\rightarrow	Emp. Sad.	.43 (.09)	.28	.00
Social & Civic	\rightarrow	Emp. Ref	.15 (.08)	.11	.053
Social & Civic	\rightarrow	G-E threat	27 (.10)	16	.01
Student-Student Relations	\rightarrow	IOS	1.01 (.16)	.35	.00
Student-Student Relations	\rightarrow	Emp. Sad.	.33 (.09)	.22	.00
Student-Student Relations	\rightarrow	Emp. Ref	.43(.08)	.35	.00
Student-Student Relations	\rightarrow	G-E threat	46(.10)	30	.00
Error Empathetic Sad.	\rightarrow	Error Emp.	.15(.02)	.25	.00
		Ref.			
Error Empathetic Sad.	\rightarrow	Error IOS	.27(.05)	.20	.00
IOS	\rightarrow	CBI	.58(.05)	1.04	.00
Emp. Sad.	\rightarrow	CBI	.22(.03)	.20	.00
Emp. Ref	\rightarrow	CBI	.16(.04)	.12	.00
G-E threat	\rightarrow	CBI	05(.03)	05	.078
IOS	\rightarrow	Att. Ref.	.21(.02)	.40	.00
Emp. Sad.	\rightarrow	Att. Ref.	.09(.04)	.09	.019
Emp. Ref	\rightarrow	Att. Ref.	.21(.04)	.17	.00
G-E threat	\rightarrow	Att. Ref.	23(.03)	23	.00
Social & Civic	\rightarrow	CBI	.08(.07)	.05	.244
Social & Civic	\rightarrow	Att. Ref.	.09(.08)	.06	.262
Student-Student Relations	\rightarrow	CBI	.37(.07)	.23	.00
Student-Student Relations	\rightarrow	Att. Ref.	.16(.09)	.10	.061

Note: X² (132)=224.996, p=.000 *CFI*=.976 *SRMR*=.032 *RMSEA*=.033 [.025 -.040] *AIC*=340.996 *BIC*=601.546 *CAIC*=659.546

Invariance Studies

Table B3

Goodness of fit Statistics for Configural Invariance for Boys and Girls

Model	NPAR	CMIN	DF	Р	CMIN/DF
Your model	116	371.968	264	.000	1.409
Saturated model	380	.000	0		
Independence	38	4189.546	342	.000	12.250
model					

Baseline comparisons

Model	NFI	RFI	IFI	TLI	CFI
	Delta1	rho1	Delta2	rho2	
Your model	.911	.885	.972	.964	.972
Saturated model	1.000		1.000		1.000
Independence	.000	.000	.000	.000	.000
model					

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RMSEA
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Model	RMSEA	LO 90	HI 90	PCLOSE	
Your model	.025	.019	.031	1.000	
Independence	.131	.127	.134	.000	
model					

Table B4

Goodness of fit Statistics for Configural Invariance for 3rd and 5th grade children

Model	NPAR	CMIN	DF	Р	CMIN/DF
Your model	116	356.860	263	.000	1.352
Saturated model	380	.000	0		
Independence	38	4162.120	342	.000	12.170
model					

Baseline comparisons

Model	NFI	RFI	IFI	TLI	CFI
	Delta1	rho1	Delta2	rho2	
Your model	.914	.889	.976	.969	.976
Saturated model	1.000		1.000		1.000
Independence	.000	.000	.000	.000	.000
model					

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Your model	.023	.017	.029	1.000
Independence	.130	.127	.134	.000
model				

Table B5

Goodness of fit Statistics for Configural Invariance for children attending Central and Suburban Schools

Model	NPAR	CMIN	DF	Р	CMIN/DF
Your model	116	371.670	264	.000	1.408
Saturated model	380	.000	0		
Independ. model	38	4156.876	342	.000	12.155

		Baseline con	nparisons		
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Your model	.911	.884	.972	.963	.972
Saturated model	1.000		1.000		1.000
Independence	.000	.000	.000	.000	.000
model					
		RMSI	EA		
Model	RMSEA	LO 90	HI 90	PCLOSE	
Your model	.025	.019	.031	1.000	
Independence model	.130	.127	.134	.000	

Table B6

Goodness of fit Statistics for Configural Invariance for Greek and Foreign Children (based on Parents' Ethnicity)

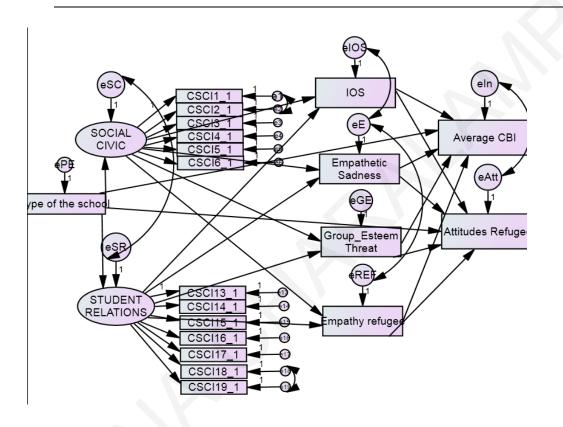
Model	NPAR	CMIN	DF	Р	CMIN/DF
Your model	116	379.538	264	.000	1.438
Saturated model	380	.000	0		
Independence	38	4149.701	342	.000	12.134
model					

Baseline comparisons

Model	NFI	RFI	IFI	TLI	CFI
	Delta1	rho1	Delta2	rho2	
Your model	.909	.882	.970	.961	.970
Saturated model	1.000		1.000		1.000
Independence	.000	.000	.000	.000	.000
model					

Model	RMSEA	LO 90	HI 90	PCLOSE	
Your model	.026	.020	.031	1.000	
Independence	.130	.127	.134	.000	
model					

RMSEA



 $X^{2}(151) = 321.047, p <.00 \quad CFI = .956 \quad SRMR = .039 \quad RMSEA = .041 \quad [.035 - .048] \quad AIC = 439.047 \quad BIC = 704.090 \quad CAIC = 763.090$

Note 1: This model sets the Type of School as the predictor variable which impacts school climate aspects, which in turn impact the four mediators and finally impact the two outcome variables. Similar results occur if Parents' Ethnicity is set as the predictor, instead of Type of Sc. Note 2: Another similar model was tested investigating the four categorical variables as distal predictors (Gender, Grade, Type of School and Parents' Ethnicity). Fit indices were very poor.

Figure B2. Supplementary Analysis - An alternative model for Future Research

APPENDIX C: The Questionnaire of Study 2 – Descriptive statistics & Pairwise Comparisons & Figures of Mediation Analyses

Questionnaire for Children that live in Greece

PART A: Demographics

Age:	Country I w	as born:				
Country of origin: Moth	er:		Father	:	 	
Languages spoken in my	y home:				 	
My grandparent's reside	ence:					
Check the appropriate b	oox.	Воу		Girl		
PART B						

1. How many times have you come across with a refugee from Syria? (*Please circle accordingly*)

	Never	A few times	Some times	Many times	All the time
At School / within school	1	2	3	4	5
In my neighbourhood / in the park	1	2	3	4	5

2. Below you will read about a group of people who have recently settled in Greece, because there is a war going on in their country (Syria). These people are called refugees. Read carefully and circle the number that best represents your opinion in the statements below. There are no right or wrong answers, nor will anyone know what you have answered.

1= Completely 2=Mostly Disagree Disagree		3= Neither Agree or Disagree	4=Mostly	Agree		5=Completely Agree		
Refugees need help from t	he Greek state.		1	2	3	4	5	
Refugees need medicines f	rom the Greek state.		1	2	3	4	5	
Greece can help the refuge	es.		1	2	3	4	5	

There are a lot of jobs in Greece for everyone.	1	2	3	4	5
Refugees will throw trash in the city.	1	2	3	4	5
There will not be enough space for everyone to live in Greece.	1	2	3	4	5
Greater poverty will increase in Greece.	1	2	3	4	5
Greek citizens will start to abandon the country.	1	2	3	4	5
Refugees need help: food and money.	1	2	3	4	5
Refugees need friends.	1	2	3	4	5
Refugees love Greece.	1	2	3	4	5

3. What do you think will happen when the Syrian refugee come to the Greek schools?

Refugee children will like the Greek schools.	1	2	3	4	5
All children can be friends.	1	2	3	4	5
*Christians can be friends with Muslims.	1	2	3	4	5
The Greek schools will become better.	1	2	3	4	5
There will be a lot of fighting within schools.	1	2	3	4	5
All children will become more easy-going	1	2	3	4	5
School events / celebrations will be better, because children from different countries will be involved.	1	2	3	4	5

* This item was dropped from further analysis

**This item was combined with item 11 on the perceived threats scale and together they were assessed as the Group-Esteem Threat construct.

4. Below is something that looks like a thermometer. We call it a 'feeling thermometer' because it measures your feelings towards groups. Here's how it works. If you don't know too much about a group, or don't feel particularly warm or cold toward them, then you should place them in the middle, at the 15-degree mark. If you have a warm feeling toward a group, or feel favourably toward it, you would give it a score somewhere

between 50 and 100 depending on how warm your feeling is toward the group. On the other hand, if you don't feel very favourably toward some of these groups _ if there are some you don't care for too much _ then you would place them somewhere between the 0 and 15 mark.

5

5

5

5

Refugee Syrian children

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Children who live in Greece and whose parents are Greek citizens

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

I like refugees.	1	2		3	4	
Refugees are good people.	1	2		3	4	
I like the perspective of having refugee children in my classroom.	1	2		3	4	
I like to play with the refugee children in the courtyard of the school.	1	2		3	4	
6. <u>State how much you agree with the statements below.</u>						
It must be scary for refugees when they arrive in a new country		1	2	3	4	5
We should be nice to refugees and help them settle in.		1	2	3	4	5
It makes me sad to see a child who can't find anyone to play With.		1	2	3	4	5
Seeing a child [girl/boy] who is crying makes me feel like crying		1	2	3	4	5
I really like to watch people open presents, even when I don't get a present myself.		1	2	3	4	5
Sometimes I cry when I watch TV.		1	2	3	4	5
I get upset when I see a child being hurt		1	2	3	4	5
Some songs make me so sad I feel like crying.		1	2	3	4	5
Some songs make me so sad I feel like crying.		1	2	3	4	5

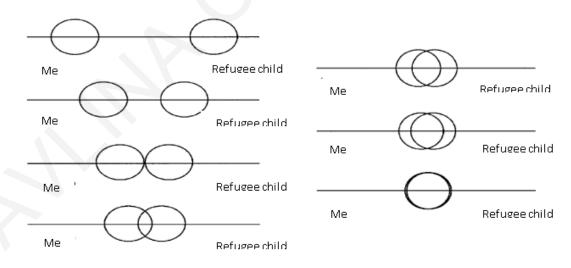
5. Now state how much you agree with the statements below.

7. Imagine that a refugee child arrives to your class. If you are a boy, imagine that the refugee child is a boy, and

if you are a girl imagine that the child is a girl. State how much you would like to have hove contact with him/her.

1=Completely Disa	2=Mostly Disagree	3= Neither Agree nor Disagree	4=Mos Agree	tly	5=Completely Agree				
8. Use the charts below to show what you would like your relationship to be with the new refugee child.									
1. I would like to	o play with him/h	er.	1	2	3	4	5		
2. I will like the	new classmate.		1	2	3	4	5		
3. I'll invite the	new classmate to	my house to eat and play.	1	2	3	4	5		
4. I would like session time.	to hang out wit	h the new classmate during	1	2	3	4	5		
5. I would like afternoon.	to hang out wi	th the new classmate in the	1	2	3	4	5		
6. I would like to	o meet him/her to	o my friends.	1	2	3	4	5		
7. I would like to	o sit next to him/	her in the classroom.	1	2	3	4	5		

Remember that if you are a boy, the refugee child is a boy, whereas if you are a girl, the refugee child is a girl. Choose <u>only one</u> of the 7 charts.



We thank you for participating!

Table C1

Descriptive Statistics for all pre-measures for each group and significance levels

		Interv	ention1	Inter	vention2		Control	p value
Measure	Range	М	SD	М	SD	М	SD	
Realistic Threat	1 – 5	2.72	1.01	2.80	0.95	2.64	0.97	.974
Recognition for Need	1 - 5	4.26	.77	4.12	0.97	3.88	0.91	.239
Group Esteem Threat	1 - 5	2.28	1.02	2.31	1.07	2.92	0.96	.048*
Multicultural	1 – 5	3.69	.75	3.41	1.02	3.25	1.00	.294
Attitudes								
Outgroup	1 - 30	19.96	8.02	19.70	6.82	17.59	7.13	.293
Thermometer								
Ingroup Thermometer	1 - 30	27.04	4.31	26.27	5.25	25.04	5.50	.550
Attitudes Toward the	1 - 5	3.15	1.22	3.20	1.05	2.81	1.09	.405
Refugee								
Empathy Toward the	1 - 5	3.88	.89	3.89	1.03	4.11	.84	.596
Refugee								
Empathetic Sadness	1 - 5	3.87	.94	3.75	.96	3.43	1.04	.201
Contact Behavioral	1 - 5	3.55	1.15	3.42	1.09	3.17	1.22	.505
Intentions								
IOS	1 - 7	3.70	1.90	3.21	1.87	3.42	2.28	.714

Note: High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

Table C2

Study 2: Descriptive Statistics for all post-measures for each group

		Interve	ntion1	Interv	ention2	Contr	rol	p value
Measure	Range	М	SD	М	SD	М	SD	
Realistic Threat	1 - 5	2.49	.87	2.43	1.05	3.15	.83	.011*
Recognition for Need	1 - 5	4.58	.59	4.60	.39	4.07	.96	.012*
Group Esteem Threat	1 - 5	2.22	1.24	1.89	1.04	3.00	1.02	.006**
Multicultural Attitudes	1 - 5	3.73	.79	3.80	.76	3.17	1.08	.027*
Outgroup Thermometer	1 - 30	24.70	4.99	24.46	5.97	17.27	7.14	.000***
Ingroup	1 - 30	26.65	5.38	26.67	4.98	25.92	4.67	.834

Thermometer								
Attitudes	1 - 5	3.72	.98	3.73	1.04	2.73	1.09	.001**
Toward the								
Refugee								
Empathy	1 - 5	4.42	.77	4.27	.78	3.87	.86	.048*
Toward the								
Refugee								
Empathetic	1 - 5	3.87	.94	3.75	.98	3.43	1.04	.273
Sadness								
Contact	1 - 5	3.98	.89	3.64	1.12	2.99	1.21	.011*
Behavioral								
Intentions								
IOS	1 - 7	5.52	1.53	4.33	2.20	3.08	1.83	.000***
<i>Note:</i> 1. * = <i>p</i> <.05,	. * *= p<	<.01, .	*** = p	<i>o<.001</i>				

2. High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings*.

Table C3

Study 2: Descriptive Statistics for all late-measures for each group

		Interve	ntion1	Interv	ention2	Contr	rol	p value
Measure	Range	Μ	SD	М	SD	М	SD	
Realistic Threat	1 - 5	2.60	.75	2.78	.92	2.69	.92	.770
Recognition for Need	1 – 5	4.55	.62	3.99	.82	4.06	.86	.028*
Group Esteem Threat	1 - 5	2.61	.66	2.69	1.08	2.98	.78	.279
Multicultural Attitudes	1-5	3.73	.79	3.80	.76	3.17	1.08	.017*
Outgroup Thermometer	1 - 30	22.04	5.74	20.63	8.57	15.19	8.04	.005**
Ingroup Thermometer	1 - 30	26.43	4.35	26.65	4.16	25.58	4.20	.754
Attitudes Toward the Refugee	1 – 5	3.34	.75	3.02	.96	2.48	1.14	.010*

Empathy	1 – 5	4.52	.61	4.04	.81	3.58	.92	.000***
Toward the								
Refugee								
Empathetic	1 - 5	3.73	.78	3.63	.94	3.27	.96	.176
Sadness								
Contact	1 - 5	3.63	.88	3.35	.93	2.65	1.28	.005**
Behavioral								
Intentions								
IOS	1 - 7	3.96	1.89	3.75	1.75	2.88	1.88	.101
<i>Note:</i> 1. * = <i>p</i> <.05,	. * *= p<	<.01, .	*** = p	o<.001				

2. High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

Table C4

Pairwise within-subjects mean differences at different time points

Mean Difference of different time points (T1, T2, T3)										
Puppet & Activities				Puppet Only	,		Control			
	Interventio	n 1	1	Intervention	2	Intervention 3				
<i>T1-T2</i>	<i>T1-T3</i>	Т2-Т3	<i>T1-T2</i>	<i>T1-T3</i>	<i>T2-T3</i>	<i>T1-T2</i>	<i>T1-T3</i>	<i>T2-T3</i>		
-1.83	-0.26	1.57	-1.13	54	.58	.35	.54	.19		
.000	.000	.59	.004	.26	.12	.34	.24	.59		
.06	33	40	.42	38	80	.08	06	02		
.61	.20	.08	.07	.13	.002	.57	.81	.45		
54	65	10	38	16	.23	25.	.54	.28		
.013	.001	.61	.07	.42	.25	.22	.005	.13		
19	05	.14	.13	.25	.13	06	.10	.16		
.40	.80	.50	.55	.21	.54	.78	.61	.42		
	<i>T1-T2</i> -1.83 .000 .06 .61 54 .013 19	Interventio T1-T2 T1-T3 -1.83 -0.26 .000 .000 .06 33 .61 .20 54 65 .013 .001 19 05	Puppet & Activities Intervention I T1-T2 T1-T3 T2-T3 -1.83 -0.26 1.57 .000 .000 .59 .06 33 40 .61 .20 .08 54 65 10 .013 .001 .61 19 05 .14	Puppet & Activities Intervention I I T1-T2 T1-T3 T2-T3 T1-T2 -1.83 -0.26 1.57 -1.13 .000 .000 .59 .004 .06 33 40 .42 .61 .20 .08 .07 54 65 10 38 .013 .001 .61 .07 19 05 .14 .13	Puppet & Activities Puppet Only Intervention I Intervention I T1-T2 T1-T3 T2-T3 T1-T2 T1-T3 -1.83 -0.26 1.57 -1.13 54 .000 .000 .59 .004 .26 .06 33 40 .42 38 .61 .20 .08 .07 .13 54 65 10 38 16 .013 .001 .61 .07 .42 19 05 .14 .13 .25	Puppet & Activities Puppet Only Intervention I Intervention 2 T1-T2 T1-T3 T2-T3 T1-T2 T1-T3 T2-T3 -1.83 -0.26 1.57 -1.13 54 .58 .000 .000 .59 .004 .26 .12 .06 33 40 .42 38 80 .61 .20 .08 .07 .13 .002 .54 65 10 38 16 .23 .013 .001 .61 .07 .42 .25 .19 05 .14 .13 .25 .13	Puppet & ActivitiesPuppet OnlyIntervention IIntervention 2Intervention 2T1-T2T1-T3T2-T3T1-T2T1-T3T2-T3T1-T2-1.83-0.261.57-1.1354.58.35.000.000.59.004.26.12.34.063340.423880.08.61.20.08.07.13.002.575465103816.2325013.001.61.07.42.25.221905.14.13.25.1306	Puppet & ActivitiesPuppet OnlyControlIntervention I $Intervention 2$ $Intervention 2$ T1-T2T1-T3T2-T3T1-T2T1-T3T2-T3T1-T3-1.83-0.261.57-1.1354.58.35.54.000.000.59.004.26.12.34.24.063340.423880.0806.61.20.08.07.13.002.57.81.54.65103816.23.25.54.013.001.61.07.42.25.22.005.1905.14.13.25.1306.10		

CBI	43	08	.35	22	.07	.29	.18	.53	.34
p value	.07	.75	.09	.33	.76	.14	.40	.02	.07
Attitudes	57	19	.38	53	.18	.71	.08	.33	.25
Ref.									
p value	.03	.44	.07	.04	.45	.001	.75	.15	.21

Table C5

Descriptive Statistics for each grade and significance levels at Time 1(pre-measures)

		3 rd Gra	ude(N=3.	$5) 5^{th} C$	Gr(N=35)	p value
Measure	Range	М	SD	М	SD	
Realistic Threat	1 - 5	2.52	.96	2.89	.95	.084
Recognition for Need	1 - 5	4.07	.86	4.10	.93	.851
Group Esteem Threat	1 - 5	2.21	1.06	2.91	.84	.001**
Multicultural	1 - 5	3.63	.96	3.28	.91	.081
Attitudes						
Outgroup	1 - 30	20.38	6.87	17.95	7.55	.131
Thermometer						
Ingroup Thermometer	1 – 30	26.62	5.22	25.66	4.94	.394
Attitudes Toward the	1 - 5	3.06	1.23	2.94	1.02	.429
Refugee						
Empathy Toward the	1 – 5	3.78	1.15	3.97	.86	.733
Refugee						
Empathetic Sadness	1 - 5	3.63	1.03	.357	.97	.798
Contact Behavioral	1 – 5	3.44	1.22	3.24	1.07	.429
Intentions						
IOS	1 - 7	3.38	2.35	3.20	1.61	.682

Note: High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

Table C6

Descriptive Statistics for each grade and significance levels at Time 2(post-measures)

		3 rd Gra	ude (N=3	$(35) 5^t$	h(N=38)	p value
Measure	Range	М	SD	М	SD	
Realistic Threat	1 – 5	2.33	.99	3.04	.88	.001**
Recognition for Need	1 - 5	4.55	.59	4.30	.78	.108
Group Esteem Threat	1 - 5	1.93	.99	2.67	.94	.001**
Multicultural	1 – 5	3.92	.74	3.21	.93	.000***
Attitudes						
Outgroup	1 - 30	25.21	5.92	19.39	6.61	.000***
Thermometer						
Ingroup Thermometer	1 - 30	28.51	3.28	24.32	5.57	.000***
Attitudes Toward the	1 – 5	3.78	1.27	3.01	.90	.002**
Refugee						
Empathy Toward the	1 - 5	4.29	.73	4.14	.89	.409
Refugee						
Empathetic Sadness	1 - 5	3.91	.99	3.45	.97	.039*
Contact Behavioral	1 - 5	3.90	1.26	3.20	.98	.006**
Intentions						
IOS	1 - 7	5.00	2.24	3.57	1.76	.002**

Note: High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

Table C7

Descriptive Statistics for each grade and significance levels at Time 3(late-measures)

		3 rd Gra	ade (N=.	$(35) 5^t$	$^{h}(N=38)$	p value
Measure	Range	М	SD	М	SD	
Realistic Threat	1 - 5	2.45	.91	2.91	.76	.020*
Recognition for Need	1 - 5	4.07	.93	4.13	.91	.781
Group Esteem Threat	1 - 5	2.64	.90	2.88	.82	.240
Multicultural	1 - 5	3.34	.90	3.09	.78	.203
Attitudes						
Outgroup	1 - 30	20.66	7.83	17.74	8.12	.123
Thermometer						
Ingroup Thermometer	1 - 30	26.74	4.23	25.45	4.11	.189
Attitudes Toward the	1 - 5	2.84	.98	3.01	1.06	.462
Refugee						
Empathy Toward the	1 - 5	3.99	.92	4.07	.85	.700
Refugee						

Empathetic Sadness	1 - 5	3.59	.99	3.44	.508	.84
Contact Behavioral	1 - 5	3.33	1.18	3.06	1.06	.314
Intentions						
IOS	1 - 7	3.74	2.05	3.29	1.71	.306

Note: High scores indicate positivity toward the outgroup, with the exception only of the *Realistic Threat Scale & the Group Esteem Threat Scale, for which high scores indicate high threat feelings.*

Table C8a

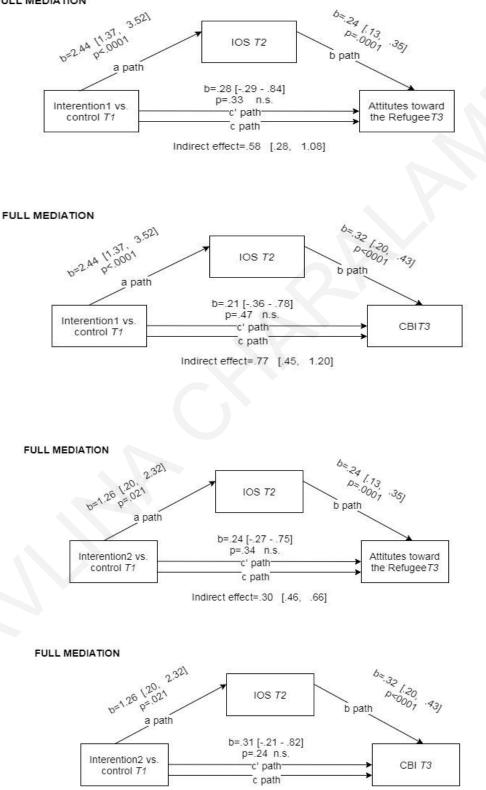
Money Allocated to the Refugees by Grade (all groups)								
	Ν	Mean	SD					
3 rd Grade	35	344.29	303.599					
5 th Grade	38	502.63	377.035					

Table C8b

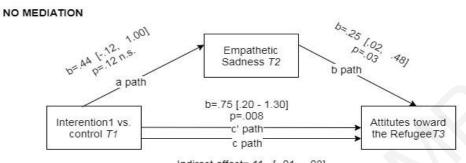
Money Allocated to the Refugees by Grade within the Intervention 1 Group						
	N	Mean	SD			
3 rd Grade	12	333.33	210.339			
5 th Grade	11	713.64	353.618			

Mediation Analyses

FULL MEDIATION

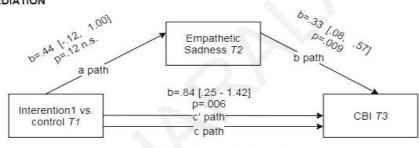


Indirect effect=.40 [.06, .83]

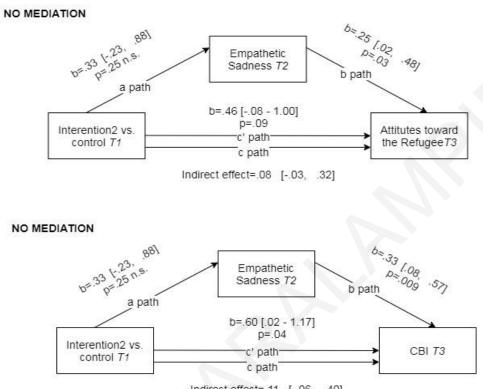


Indirect effect=.11 [-.01, .03]

NO MEDIATION

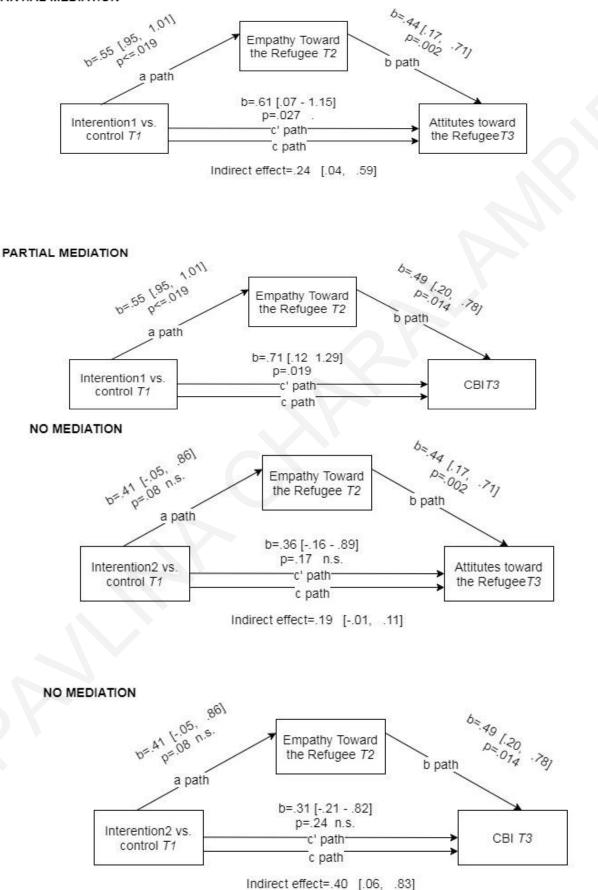


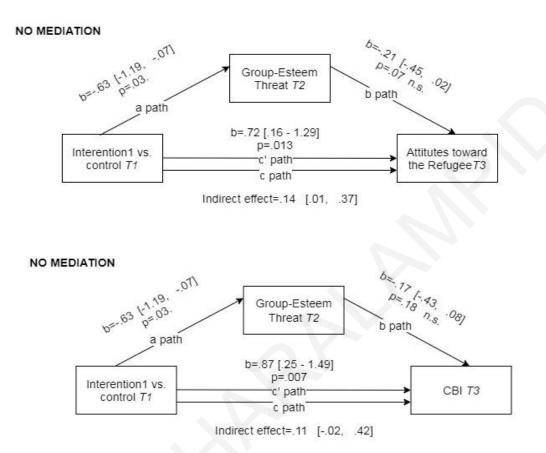
Indirect effect=.14 [-.02, .45]



Indirect effect=.11 [-.06, .40]

PARTIAL MEDIATION





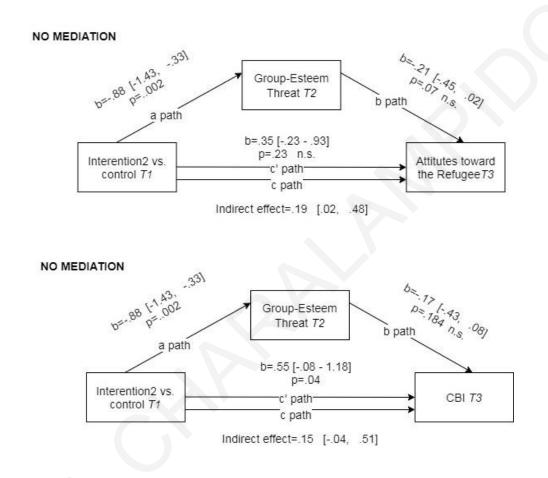


Figure C1: Mediation analysis of Intervention groups to the two outcome measures through IOS, Empathy Toward the Refugee, Empathetic Sadness and Group-Esteem Threat at T2 (post measures)

APPENDIX D: Activities of Study 2 Interventions

Activities Plan – Intervention 1 group (Puppet and Activities)

Section: Developing social skills, accepting diversity, developing empathy

General Goals:

- 1. Develop and empower the Social Self by acquiring related social skills
- 2. Promote Multiculturalism & Respect for Diversity
- 3. Promote inclusion of the other in the self

Lesson Plan 1:

Goals: Get introduced with the "new classmate" [the puppet] & trust building activities

Materials: An audio (music) cd

Activities:

- 1. Warming up Circle Time
 - Standing up in a circle we have just got up from bed yawning loud and stretching to decipher (smooth music is playing)
 - Children move with the music, without touching each other. When look someone in the eyes we say: "Good morning, I' m [the name]". When the music stops, we freeze!
- 2. The Memory Name Game: One by one, children stand in the centre of the circle and say their name in a manner they wish (enjoyably, angrily, thrilled, happily, shyly, tiredly, etc.). Then, the next child standing in the circle has to stand in the centre and say the previous child's name (using the same style) and then say her/his name using a new style. As the game goes on, it gets more difficult to recall other children's names (if this is the first time they meet) and styles.
- 3. *The Copy and Repeat Game*: A child gives the signal for saying or doing something and then everybody follows her/him, e.g. "Let's all become aeroplanes", "Let's all swim", "Let's all lough really loudly", etc. The game goes on, until everybody had the chance to give their signal.
- 4. Children are given a secret number that only they and the teacher know. The teacher starts telling a story about a group of children who are on a field trip. The children must pretend doing whatever the teacher says, like for example "cross over a small river, climb up a tree" etc. "Then suddenly, number 3 faints...". Number 3 must pretend she/he faints and falls. The task is for the

rest of the team to grasp the number 3 before she/he reaches the floor. Be careful: the children must be told not to fall in a dangerous manner. The children who are "saved" by their classmates take a special seat in the classroom and encourage their classmates to keep on "saving" children. The game ends when only two children are left.

Lesson Plan 2

Goals: Identify stereotypes, challenge stereotypes, respect for diversity

Materials: an audio cd, a small ball, 4-5 lemons, an apple

Activities:

- 1. <u>Warming up</u>: While sited, the children throw the small ball to another child and tell him something nice, e.g. "you are very caring". The child who has just received the ball has to throw it to someone else now, and again say something nice to him. The game goes on until everybody is told something nice. The compliments or the praises must be different every time the ball switches hands.
- 2. The lemon game
 - a. Children are grouped in teams of 4-5 students and are given a lemon. The teacher asks them not to mark the lemon in any way. Following this remark, the children are asked to write down the lemon's characteristics. Then they announce them to the rest of the classroom and the teacher writes them on the whiteboard.
 - b. The groups are asked to give their lemon a name, an identity in general and then come up with a story (they are asked to impersonate the lemon) about their lemon.
 - c. One of the members of each team presents the team's story to the classroom.
 - d. The teacher gathers all the lemons in the centre of the circle and mixes them up. Then one of the children is asked to come and take their team's lemon. (It is expected that, after all the engagement with a specific lemon, the child will easily recognize their team's lemon).
 - e. All lemons are again placed in the centre of the circle, only this time the teacher adds a red apple. The teacher askes the children whether the red apple would fit in the lemon world.
 - f. Discussion in the circle & issues to consider:
 - > Why was it so easy for you to identify your lemon?
 - > Why do you think the red apple does / or does not fit the lemon world?
 - Is there any fruit in the circle that you prefer? If so, why is that?
 - g. The children are now asked to impersonate the red apple and put it in a story with their lemon.

> h. Presentations of the stories – Discussion based on the stories. (If the children used any negative stereotypes in their stories, the discussion focuses on those. For example, discussion could regard the insanity behind such stereotypes, i.e. stereotyping about an apple! This is the way people stereotype; irrationally).

Lesson Plan 3:

<u>Goals:</u> Developing social skills – Problem Solving & Empathy

Materials: An audio (music) cd

Activities:

- 1. Warming up: Children dance around in the classroom while a cheerful music is on. When the music suddenly stops, children have to make an artistic gesture using only their hands. Children who make the same (or very similar) gestures group together. While the game goes on, the created groups have to function accordingly and always present a new shared artistic gesture.
- 2. The Extra-terrestrial: One child plays the role of the human being who tries to convince the other child, who plays the extra-terrestrial, to wear a jacket. The extra-terrestrial refuses or does not understand, thus creating difficulties and challenges; however the extra-terrestrial is willing to learn. Each "human being child" has 1 minute to convince the extra terrestrial. Then another child takes over. Children have to deal with two challenges: to find a way to communicate and also to convince the extra terrestrial. [The role of the extra terrestrial can be distributed to more children]
- 3. Children sit in the circle and discuss about their ideas regarding the extra terrestrial game, as well as the difficulties they faced and the ways they found to overcome them. Which approaches seem to offer better results? In addition, how did the extra terrestrial felt throughout this procedure?
- 4. Children are given a piece of paper with two columns to fill in (see figure 1 below) and are asked to right down the associate feelings of each of the parties involved in the above situation, i.e. the feelings of the human being child trying to communicate and convince the extra terrestrial child, as well as the feelings of the extra terrestrial child while trying to communicate in a foreign language that everybody else, but him, knew and while everybody else seemed distressed.

How I felt as a human	How do I think the extra	How I felt as an extra –	How do I think the
being child	 terrestrial felt 	terrestrial	human being child
			felt
1		I	1
γ		392 Y	
		392	
To be completed by those who were playing		To be completed by those who were	

the human being child role

To be completed by those who were playing the extra – terrestrial role

Lesson Plan 4:

<u>Goals:</u> Developing social skills – Empathy, challenging stereotypes & include the other in the self

Materials: An audio (music) cd, a thread

Activities:

- Children sit in the circle. The teacher puts the produced outcomes of the previous lesson plan (activity 4 – figure 1 above) in the middle of the circle. The aim of the activity is to discuss about feelings of the parties involved in an interpersonal / intergroup situation. Children discuss and add new feelings that might fit such situations.
- 2. Children have to come up with possible ways to make such situations / relations less anxious. They are grouped in 4, 5, teams and distributed the following assignments.

Assignments

- How can I / we help the extra-terrestrial so as for her / him to feel comfortable?
- How can I / we help the extra-terrestrial so as to become more familiar with the rest of the group?
- Let's organize an activity that would make everybody feel more comfortable and would promote communication
- 3. Children are again grouped in their previous teams and given A2 size papers. The teacher offers food for thought: "Who do you think could be feeling as an extra terrestrial in our country / community / school?" "What are the reasons for such discriminations?" "How can the ideas you presented earlier be applied in such occasions?" Children write their thoughts and considerations down on the paper.
- 4. Discussion

Notes:

1.The puppet was carried or held by a different student in each activity. 2.The proposed activities can be also found at: <u>https://nicerproject.eu/wp-content/uploads/Pedagogical-Guide-EN-Web-Version.pdf</u>

The song 5th grade (Intervention 1) children wrote

Hassan's song

From a foreign place and from cabbage (2 times) an 11-year old boy came. (2 times)

Coming from Syria that is far away (2 times) friends looking for a little company now (2 times)

His name is Hassan and he has a golden heart. (2 times) We wish him good luck with a warm embrace. (2 times)

The puppets' identity

My name is Ali and I come from Syria. I came to Greece three months ago because there is a war going on in my country. I am 9 years old *[11 years old in the 5th grade groups]* and I had to quit school for a while. But now I am very happy to be able to go to school again and hope soon to become friends with you, since here in Greece I have no friends yet. In the house where we live with my family, I feel very lonely and bored. I can't stop thinking of the beautiful moments we had in my country, before the eruption of the war. Before the war me and my neighborhood kids were all carefree and happy, we played soccer, we made fun, we also foreign languages (for me it was English) and Computers. I was doing very well at school and my dream was to become a computer teacher someday, but now I am only worried that I may not live long enough fulfill my dreams. Actually, the only thing that matters to me now, is to survive (me and my family). The war has destroyed all my dreams, many of my friends lost their parents; others have lost their lives. Every night I wake up due to nightmares: I see the same dream every night; a group of wild armed men are after us and as they approach us I wake up crying. I wish I could get a huge

rubber and erase all the bad things I have seen or went through. I wish this war had never happened.



Figure D2: The four puppets used in the intervention study (from left to right: Hassan, Ali, Bahram & Asil)

This year Parents' Association, together with our school-teachers, has raised some money to help groups and institutions in need. Vote whether or not you want to help each institution and put in the corresponding box the amount of money you think should be given to each organization.

Please circle YES or NO and then fill in the corresponding box the amount you would like to give to each organization. Be aware: <u>The total money we have is 2000 euros and we have to donate the whole amount!</u>

INSTITUTION/ORGANIZATION	Should we help?	If yes, write the amount you think we should give. Otherwise, if no, leave the box as it is.
Help the "NATURE" Foundation, which is		
dedicated to protecting the environment.	YES / NO	
Help the "MEMORIES" nursing home that	YES / NO	
takes care of the elderly.		
help the "HOPE" foundation that takes care	YES / NO	
of refugees who flee from war in Syria.		
Help the MUSES Dance School go to France	YES / NO	
to take part in a dance competition.		
Help the "ACTIDA" Foundation that cares for	YES / NO	
adults with disabilities.		

Figure D3: The Qualitative Measure used in Study 2