It is a moving experience to be invited here to Cyprus by friends who are leading such an important project: the 'Home for Cooperation'. I will tell you why. There are several motives.

First, we share the common desire to promote peace not just wishfully but through meaningful acts. We share the belief that goodwill invested in dialogue and education is important to raise generations of citizens capable of managing rival interests and conflicts in a peaceful way thanks to intelligence, imagination, patience and sympathy. Mutual respect is not a given. Psychologists who spend a lot of time observing children know how much effort it requires from their parents, teachers and others to help them develop the capacity to listen, to make their own points and desires clear, and then to find ways to negotiate perspectives and actions that can satisfy all partners. This starts with play and toys, personal belongings and common properties (Rosciano, 2008), making friends (Selman, 1980) and continues with joint activities (Rubtsov, 1989), exploratory talk and dialogue in school situations (Mercer & Littleton, 2007), group work (Howe, 2010; Schwarz, Perret-Clermont, Trognon & Marro, 2008, Tartas, Baucal and Perret-Clermont, 2010) and also, when they exist, involvement in youth based organizations (Heath, 2004). Only with the careful training of their social and cognitive skills can young people be raised into cooperative adults patient enough to take time to find ways to sort out their conflicts with imagination and to expand their futures. Emotional competence develops within the cradle of an emotionally secure environment in which lessons learned from past experiences can be turned into resources to build the future. Of course, adults have to pave the way for that, not only by the strength of their own personalities but also because they have experience in managing difficult situations, in mediating conflicts, and in creating open spaces for dialogue and joint work. This is what you are doing here, in this very special place, and it is an honour to be invited to join.

Another basis for my pleasure in being here today is the feeling of being offered an opportunity to ‘thread’ the lines of thought and of commitment that have been dear to great figures of my own country. In particular, I am thinking about Jean Piaget, one of my professors at the Universities of Neuchâtel and Geneva in Switzerland, who is well known internationally for his work in child development. How can children grow up understanding in the physical and social world? When Edouard Claparède, Adolphe Ferrière and Pierre Bovet invited Piaget to Geneva’s Institut Jean-Jacques Rousseau, they were not only offering him a way to continue his promising academic research but they also wanted him to contribute scientifically to their own project: the promotion of peace and responsible citizenship via education- not any kind of education-, but programs sustaining the respectful socialization of the growing child (Martin, 1986; Oelkers, 2008). These intellectuals were active in Geneva, the city that was hosting the newly founded Society of Nations. They were involved in several international organizations sharing concerns for peace, education, development, and social welfare. Some of them were involved in the Society of Friends, a religious organization promoting horizontal relations of cooperation between human beings and non-violence, with special attention, for instance, to the art of conflict mediation (Greco Morasso, 2011, p.149). The same Bovet was translating into
French the book by Baden-Powell, the founder of the Boy Scouts - a youth based organisation that trains boys in self-government and life-skills. In this milieu was founded the still active International Bureau of Education, of which Jean Piaget was the first director. The International Bureau of Education convenes ministries of education from all over the world to join efforts in developing an education sustaining citizenship and international cooperation. It is in this atmosphere and with these concerns that Jean Piaget and his colleagues developed their new perspective on child development and education that is now internationally known (Perret-Clermont & Barrelet, 2008).

A third reason (and I see that I will not be able to mention them all) for my pleasure today is the important work that our present colleagues in Cyprus are contributing to research and innovation in psychology and education. Let me mention at least (and sorry for those unmentioned) the three people I know best: Prof. Andreas Demetriou, presently Minister of Education, a member of the International Academy of Education, garnering renown worldwide for his scientific work; the emerging, young and yet already published in the best journals of psychology, Prof. Charis Psaltis (let me tell my fellow Swiss citizens present here that these two professors are well known for their roles in pushing further and renewing Jean Piaget’s heritage); and Dr. Chara Makriyianni, President of the Association for Historical Dialogue and Research, an expert in history, and our host today.

1 Swiss and Piagetian heritage on social relationships and psychological development

Let me turn back to Jean Piaget for a moment. His contributions have had a major impact on questions that we focus on today. Afterwards, I will consider important limits of Piaget's approach and new avenues of contemporary research.

As said above, in Geneva, Claparède, Bovet and Ferrière were important protagonists of the New Education movement. After the troubled years of World War I and the Russian Revolution, they were concerned with the promotion of an active education that would contribute to the development of world peace. They considered that teachers needed to be trained in child development and that research, both in psychology and education, could help to better understand to what extent the social milieu can provide opportunities for personal growth and proper socialisation of children. Intellectual development meant for them a capacity to develop one's curiosity and interests, to take initiatives, to critically reflect in order to depart from fearful submission to authority and ideologies.

Piaget was called to Geneva to contribute to this project. He got actively involved in empirical observations of the growing child. He formalised a theory that accounts for the different steps that a child has to go through, starting as an active but dependant toddler to end up as a reflective, autonomous citizen. The active child is encouraged to feel and explore, to stop and anticipate his actions (and her actions... though Piaget never paid specific attention to gender differences), to express his understandings and interact with others, to explore the world with trial and error and to be attentive to the feedback of experience. From these basic conducts, the growing child gradually learns to deal with contradictions, to understand them not as failures of his intelligence but as teasing his curiosity. Contradictions are not barriers to his understanding but obstacles that the dynamic course of life encourages him to jump over. The goal of education is not to repress children's initiatives and questions but, on the contrary, to support them. Initiatives and questions are the ‘motor’ of children's constant movement towards better understanding of themselves, others and of the wider world. More fundamentally, this dynamical ‘equilibration process’ -as Piaget used to call it - not only helps the child develop as a ‘discoverer’ of the world but also as a ‘builder’ of cognitive tools (‘mental operations’) to apprehend the world. Hence, the general movement that Piaget describes and wants to sustain is a development from heteronomy and passive obedience to
authority to a capacity to autonomously think of oneself, society and the world as a concrete present occurrence of ‘a possibility among others’. An essential step towards the capacity to reflect on the present, anticipate the future, and understand the past (Zittoun, in press) is to become able to imagine alternative and hypothetical worlds (Harris, 2000). Hypothetical (or imaginative) thinking frees humans from the immediate dependency on the contingencies of the here and now and opens the space to critically reconsider prejudices, pseudo-determinisms, philosophies, ‘laws’ of Nature and of Society and to invent alternatives. Remember that Piaget was neither naive nor purely ‘academic’ in his theories but also a committed person struggling to be an active citizen in a time of totalitarianism and fascism (Perret-Clermont, 2008).

Another important legacy from these days of Swiss psychology is the concern for the skills of self-government reflected in Piaget’s writings in sociology and education addressing the issue of the development of moral judgement in children. ‘Cooperation’ is a central process for individual development and for society. The Russian psychologist Vygotsky, during the same period, was writing about the importance of inter-individual coordination. Vygotsky (with his colleagues and successors) showed how much joint action is important for the development of higher psychological processes. Joint activities imply social interactions in the zone of proximal development and common use of semiotic tools. All these processes can occur only if children and adults are given opportunities for cooperation. This implies raising children with a sense of self and a respect for others, with opportunities to discover the ‘otherness’ of others and the multiplicity of perspectives. Children have to experience the gain of coordinating efforts. The decentration from one’s own perspective to learn to encompass the partner’s point of view requires both social and cognitive skills that are interdependent. Everybody will remember Piaget’s studies that show so well how taking part in collective decisions about the rules of a game not only provides children with an opportunity to get along much better when playing together but also with an opportunity to have a feeling of what a rule should be: not an arbitrary imposition by an authority against which the only way to express oneself is to rebel, but a basic instrument of social life, i.e., a ‘contract’ (Piaget certainly had Jean-Jacques Rousseau’s social contract in mind) that can be modified by both parties when needed. If young people are invited to be active in setting rules, they will thereby be given the opportunity to organise both their own behaviour and society’s, to experiment by trial and error the consequences of their choices and reflect critically on them, and to learn to adapt their norms and expectations to a changing environment and society. Nowadays, with the intense changes brought about by globalisation, climate change, world tensions, new social needs and nuclear catastrophes, these socio-cognitive skills are central.

Piaget, after this fundamental contribution on cooperation, turned to other interests and only minimally studied his hypothesis about the fundamental role of cooperation. He behaved as if he took for granted that ‘if you do not want to cooperate, then there will be no advancement, if you want to cooperate everything becomes possible’. Present studies, for instance on social mediation of disputes, show that things are not so easy. Of course goodwill and good faith, as well as communication, have to be presupposed for mediation and conflict resolution to happen. But if partners are in conflict and hence have difficulties cooperating, what can they do and how can they be helped? How can the communicative exchange be restored in such a way as to make it possible for longstanding disputants to work together and build a common solution? Greco Morasso (2011) offers a very interesting description of the setting and of the conversational and argumentative processes that a conflict mediator can initiate in order to sustain adult partners in their efforts to develop the proper skills and attitudes to overcome breakdowns in cooperation. Mediators make cautious yet firm efforts to scaffold the parties’ process of regaining mutual respect and, consequently, to open a path towards their responsible cooperation. But how does it work
with children? Cooperation is not a given but the fruit of psychological development, education, culture and proper social frames. It is not a state but a dynamical process. Therefore, I will turn now to some studies that have tried to contribute to an understanding of the social requirements for children to learn to cooperate in socio-cognitive tasks.

2 The ‘architecture’ of the social relationships that allows for shared thinking, cognitive development and cooperative social skills

Piaget only minimally studied the role of cooperation. If he had done more, he would have become aware of the limits of his model that considers only two extreme situations, which are quite unlikely to occur as such:
- either the adult imposing by authority his knowledge on a dependent child. But children, even when they are in the ‘heteronomous stage’, usually tend to interpret what is being said actively and in their own way --they are not just passively appropriating the statements;
- or two autonomous minds, equal in status, involved in a symmetrical relationship, just discussing the correctness of their judgements independently of any other motive, goal or power game. Yet reality seldom provides the opportunity for such symmetrical relationships. Minds are not just ‘pure minds’: they belong to individuals who have more than just epistemic needs. They fight for their interests; they are in search of identity, social position, security. They try to manage their emotions. Their goals are multiple.

Cooperation does not happen in a ‘social vacuum’. In consequence, we would like to address the following question: which types of social relationships are supportive for the development of cooperative social skills, for the development of thinking, for mature citizenship? The question is open and more complex than it might seem at first glance. We will try to deal with some aspects of it by referring to empirical research in social and cultural psychology, classifying it according to the four ‘levels of analysis’ suggested by Doise (1986).

2.1 Level 1: The individual in cooperation

Piaget used to say that ‘operation’ and ‘co-operation’ are ‘two sides of the same coin’: to co-operate means for him to operate with others, and this entails mastering reciprocity both on the cognitive and the social plane, one feeding the other. But Vygotsky and cultural psychology suggest that social coordination precedes the individual’s competence: it is the collective practice that is gradually appropriated by the participants.

We have an excellent example of this socio-cognitive prerequisite in one of our research projects (Perret-Clermont, 1980): 4-year-old children from kindergarten were invited in dyads to share chocolate drops among themselves in a fair way. Each dyad was composed of a non-conserving child and a more advanced partner who was mastering conservation of number. They were both unaware of their partner’s cognitive level. Both children would usually engage in such a sharing activity easily. The conservers tended to use counting when they wanted to demonstrate that they had shared fairly. As predicted by Piaget, most non-conservers were not really convinced that counting helped: for them the quantities were changing according to the perceptual configurations of the chocolates. Hence the dyads had a hard time coming to a joint decision about the fairness of the shares. A closer look at the results showed that there was a major difference between two types of non-conservers: those who knew the ‘counting rhyme’ (one, two, three, four, five...) and those who did not. The former participated in the counting (even if they tended to keep the opinion that the quantities were changing) and the latter were not capable of joining in on the counting. Counting offered opportunities for more profitable interactions because, with a closer look at the one-to-one correspondence between the two sets of chocolate drops (reached in joint counting), the object under discussion was more
focussed. As a result, the performances in a delayed post-test of the non-conservers who could count were improved, several of them reaching full mastery of conservation. The semiotic tool (‘counting rhyme’) sustained the conversation, focussed the shared attention and helped make more explicit what the socio-cognitive conflict was about and, as a result, facilitated some cognitive progress. Of course, the counting rhyme is a semiotic tool that had been learned before (within other social interactions, themselves rendered possible by other former cognitive gains: a spiral move between cognitive and social growth).

Hence, contrary to Piaget, we think that cognitive and social processes sustain each other and cannot be confused as ‘two sides of the same coin’. Social skills can be learned that will help one become an efficient participant in cooperative work. In return, participating in social interactions opens the way to decentration, to discovering other perspectives, and developing more complex cognitive tools to grasp the object under scrutiny.

Some programs (see for instance: Mercer, 2000 and 2007) offer teachers strategies to enhance the language and social skills of their young students (taking the other into account, listening, taking turns, rewording, asking questions for further comprehension, etc.) who become capable of taking part in collective activities. Mercer demonstrates important cognitive gains in his programs in which children learn to think together via the training of different types of talk. In all these programs, it is important to note that teachers do not only teach skills but also introduce the children into the experience of enacting certain values: mutual respect, courage to take I-positions, obedience to certain rules (e.g., taking turns) that protect individuals by guaranteeing space for each person. We can note, too, that teachers who sustain the development of such social skills always rely for that on rules that frame the relationships and the social game. I will come back to this later. Cooperation is not only a matter of individuals developing proper social skills. In the programs just mentioned, teachers also intentionally promote values and rules that give an ‘architecture’ (Rommetveit, 1976) to the social relationships that they want their students to experience.

### 2.2 Level 2: The interpersonal relationships

Studies both in animal ethology and in child development bring evidence in favour of an interdependency between cognitive growth and the need to maintain long term relationships: safeguarding the social relationships requires the development of proper strategies, and if these are not instinctual they have to be developed using psychological means (Hinde, Perret-Clermont & Stevenson-Hinde, 1985). This echoes Sherif’s famous study revealing how a new social challenge can spur changes in cognition: Sherif & al. (1961) experimented with children in a holiday camp and demonstrated that ‘superordinate goals’, requiring immediate cooperation from all, could help reduce stereotypes, prejudices and intergroup conflicts. In order to deal with the new common goal, the children had to transform their mutual representations into more elaborated ones.

Unusual events (such as transitions from one milieu to another, changes in the environment, personal growth, contradictions, encountering differences of opinions, etc.) can be invitations to change reactions and minds, especially if there is social support to do so. In our own revisitation of the Piagetian task of conservation of quantities of liquids when poured in glasses of unequal shapes (Perret-Clermont, 1980; Muller-Mirza, Baucal, Perret-Clermont & Marro, 2003; Sinclaire-Harding, Miserez, Arcidiacono & Perret-Clermont, in press), we had the opportunity to observe how much of children’s conceptual level is dependent on the meaning they attribute to the social embeddedness of the task and the conversation about it (Donaldson, 1978, 1982; Rijsman, 1988/2001, 2008; Light & Perret-Clermont, 1989). The same children were non-conservers or conservers, depending on whether the talk was an abstract requirement from the adult in an isolated face-to-face relationship or a common reflection on a previous experience (sharing juice fairly among peers). More precisely, we have observed that during the pretest (i.e., the first conversation with the
adult), some children (especially those from the same educational milieu as the experimenter) were progressing and others were not. The latter were likely to change their minds later, as if the social relationship with the adult in the pretest was not a good opportunity for them to reflect, on the spot, here and now, on the quantities: their energy seemed to be invested first in trying to make sense of the social components of what seemed to them a strange conversation, with unclear requirements (Arcidiacono and Perret-Clermont, 2010). How the interpersonal relationship is established and understood is very important for cooperation. In the example just cited, the children did not understand that they had been invited to think together with the adult. They believed that they had to give responses to questions whose aims they did not understand. In contrast, in this experiment, when they were confronted with a peer and were trying to work out how to share juice fairly with glasses of unequal shapes, they got involved in quite different socio-cognitive processes. These were more fruitful for their own learning.

Peers invited to interact on a task are not necessarily cooperating in a horizontal (symmetric) relationship. In our research on joint activity with Kohs' cubes (Tartas and Perret-Clermont, 2008; Tartas, Baucal, Perret-Clermont, 2010), as well as in the work of other researchers (Schubauer-Leoni, 1990; Grossen & al., 1996; Psaltis & Duveen, 2006; Daron, Butera & Harackiewicz (2007), Schwarz & al., 2008), very different patterns of social interactions and of learning can be observed depending on how the partners understand their relative expertise, their roles, the goal of the 'social game' in which they are involved. Some children are assertive, some more empathic, some are careful to take their turn one after the other (even irrespective of the advancement of the task and the errors made), some, on the contrary, want the lead and give way only when they obviously fail; some imitate their partners because they think they are experts or, on the contrary, try to make them fail with the hope of demonstrating their own superiority; some pick up a friend's suggestion and try it out; and others appropriate it without understanding it. This misuse induces them to 'learn' errors. Of course, fortunately, they do not always rigidly adhere to these attitudes: for instance, observing a dyad of adolescents working together to solve a rather difficult problem involving proportions, Schwarz & al. found a turning point in their cooperative problem-solving precisely when one of the children, who had given up on defending his point of view, appropriated the other's doubt through a (momentary) concession, relieving his peer of the burden of defending his point: this meant for the peer the possibility of decentering without losing track of what he was thinking nor losing face, and he then moved ahead in his thinking.

The interpersonal relation can be facilitated by the pleasure of working with a friend. But from a cognitive perspective, interacting with a best friend might not always be the most stimulating experience, because experiencing a cognitive conflict could be felt as a threat to the friendship and hence carefully avoided (Dumont, Perret-Clermont & Moss, 1995). When are interpersonal relations and friendships likely to be strong and secure enough? When are they sufficiently protected from external pressures to permit the children to take the risk of acknowledging and discussing disagreements? We will see now that this requires a proper 'framing' (Goffman, 1974; Grossen & Perret-Clermont, 1992) of the relationships (level 3) that offers guarantees to the interactants. This framing itself is supported by institutions and/or shared cultural norms, representations and values (level 4).

2.3 Level 3: Status and intergroup relations

We have observed that children might feel offended if they think that they have been paired up with a person 'unworthy' of their status (Mark, 6 years, conscious of being in school one grade ahead of Jenny, 5 years, and asked to divide the juice with her in unequal glasses, turns to me and says: '...but she will not understand! She is much too young'). In order to invest the interpersonal relationship and to care for the other's opinion or in order to take the risk of identifying or granting credit to others'
perspectives, children and young people (perhaps adults, too) need the relationship to be secure enough to guarantee that what is at stake is not mere face saving, a threat to identity, or a comparative assessment of respective merits. If the interactants are embedded in intergroup relationships that invite them to defend their positions or status, to win in a competition (Nicolet, 1995; Nicolet & Iannaccone, 2001; Darnon, Buchs & Butera, 2006), or to adopt negative expectations towards the other (perceived for instance as less competent), it is quite probable that those worries and goals will be dealt with in priority before any investment into cooperative thinking, even if requested by the experimenter or the teacher who organises the meeting (Grossen & Perret-Clermont, 1996; Mugny & Quiamzade, 2010).

The ‘architecture’ of the relationships that permits thinking together has to offer spaces that deal with these issues. It must be a secure space that allows for trust and security. Sara Greco Morasso (2011) explores this question in her study of argumentation in dispute mediation. She sheds light on the role of the third party - the mediator - and on his or her very special status. The mediator's role is not that of being the author of the solution, yet it is an active role: that of rendering possible for the persons in conflict to move ahead, step by step, discovering, one move at a time, their common interests and the kind of social relationship that managing them requires. The premises on which this common good rests, and the arguments by means of which the dispute can be resolved, have to be progressively discovered ‘within the conflict’. Relying on close observation of the interactions between the mediator and the disputants, Greco Morasso shows how cognitive moves are possible only when a certain social space is created. In turn, these cognitive moves themselves will enlarge the possibilities to re-establish proper rules in order to better cooperate within this social space. Similar (to some extent) to the participants in Sherif's experiment, this is possible only if the interlocutors feel that they can be respected in their own interests and involved towards a common super-ordinated goal. In research with children conducted by Psaltis (2005), evidence suggests similarly that an interaction with a peer can offer opportunities for new understanding only if asserting and defending one’s own point of view is considered legitimate. And this will not be the case if social representations about the respective roles (in Psaltis’ case gender roles) undermine this legitimacy. This brings us to the fourth level of analysis that examines the role of values and norms.

2.4 Level 4: Values and norms that can frame cooperative and productive interactions

In Greco Morasso's study of mediation, in Schubauer-Leoni's studies of the ruptures of the didactic contract, in Grossen's observation of the implicit contract between subjects and experimenter, a common fundamental feature appears: good faith (i.e., trust in the goodwill and commitment to rationality of the partner in the argumentation or of the partner in joint thinking). If this is not the case, communication and relations are deeply affected and cooperation in thinking is impossible. Grossen's subject at one point stops and asks: ‘is there a trick’? or Schubauer-Leoni's school students feel deeply cheated because the teacher has asked them to solve a problem (the age of the captain) that seemed at first glance easy but was in fact absurd (Grossen, 1988; Schubauer-Leoni & Ntamakiliro, 1994).

Heath (2004), studying youth based organizations, points to the importance for marginalised youth to experience trust in older peers with whom they can identify and who introduce them to framed activities (e.g., basketball, theatre, etc.) in which they are listened to. They benefit there from a secure space to learn how to socialise, respect rules, take initiative and responsibilities. In such circumstances, not only can they act and think but also reflect on their emotions, their actions and thoughts, exploring in new ways the external world and its relation to their personal internal worlds, developing simultaneously their sense of being, their higher psychological processes, and social skills. Such open and secure spaces exist only if the rules that permit them are obeyed and only
if credible persons enforce them. The elder peers serve also as ‘guardians of the frame’. To keep with this role, these guardians of the frame themselves have to be recognised and respected not only by the participants but also by elements (institutions, cultural customs) that serve as ‘frames of the frame’ and grant credibility to their authority according to values, norms and social representations shared by a larger part of society.

Knowledge or skills acquired in a given frame are interesting only if they are relevant to the given frame but also to further frames and settings. The transition from one frame to the other is not only a matter of personal adjustment but also of recognition by a larger part of society. A young person, for instance, can be proud of achieving a success in his or her youth based organization, but even prouder to discover that her newly acquired knowledge or skill is relevant in other settings: for instance, to make friends, to get a job, etc. (Ghodbane, in preparation). Moving from one frame to another is a transition that solicits adjustments, with changes in identity and cognition (Zittoun & Perret-Clermont, 2009). What will the person change and what can she keep constant and transfer? Social markings and social representations will influence the person's perception of similarities and differences among the frames. And the frames themselves (often institutions) are more or less open to interpretations and resistant to change. This will depend on the power and objectives of the individuals and groups that 'guard and defend' them. Frames 'survive' only if they adapt, in particular, to the evolution of society and the demands of other frames. For frames to adapt, it is important that the norms and values that sustain them are discussed, particularly in the face of newcomers (new generations, migrants, new professionals, etc.) and alternative emerging stakes.

I hope that in this paper I will have pointed successfully to the important active role that educators, teachers, educational authorities, YBOs and NGOs can take in promoting the knowledge and skills but also the rules and values that give ‘architecture’ to social relationships. This architecture will then provide children and young people with opportunities to develop their understanding and active citizenship in society.

3 References


