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CiCe  
Institute for Policy Studies in Education  
London Metropolitan University  
166 – 220 Holloway Road  
London N7 8DB  
UK

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# **“It’s the thing to do”: Spanish students’ intra- and international Ultimatum Game exchange**

Melinda Dooly and Claudia Vallejo  
Universitat Autònoma de Barcelona (Spain)

## **Abstract**

*The Spanish team endeavoured to gather data in schools where diversity was the norm (schools with a high percentage of different nationalities) in order to get a glimpse into the more recent development of the European citizen. We discuss data from two years: in the first, pupils interacted with peers from their own school, and in the second year with peers in other locations in Spain and in Poland.*

## **Introduction**

In today’s society, students are growing up “in a society that can for various reasons be described as post-modern, with new kinds of possibilities, fears, hopes and contingencies” (Ross 2008:5). This implies that educators are faced with several daunting challenges: they must prepare students for careers in “the knowledge society” (Schleicher 2003; Tovar and Castro 2007), prepare them to be responsible participative citizens of democratic societies (Papanastasiou, Koutselini and Papanastasiou 2003) and concomitantly guide them in their development of the necessary prosocial life skills to live in an increasingly complex society.

It is within this context that the school system has inevitably experienced a growing demand for providing new competencies: families and society are looking to the school not only for dealing with instructional and educational needs but also to resolve questions generated by society itself [...]. (Dooly and Villanueva 2006: 225)

Arguably, there is a need for empirical research into how teachers should best confront the challenges of facilitating the development of prosocial behaviour in their students. Pro-social behaviour has been defined as “behaviour intended to benefit another” (Eisenberg *et al.* 1999: 1360). According to Simmons and Sands-Dudelczyk (1983) pro-social behaviours may include actions or behaviours intended to comfort or share and to facilitate cooperative work or play. Prosocial behaviour also implies displaying empathy for others (Op. cit.). Prosocial behaviour encompasses a sense of altruism, or “behaviour motivated by concern for others or by internalized values, goals, and self-rewards rather than by the expectation of concrete or social rewards, or the desire to avoid punishment or sanctions” (Eisenberg *et al.* 1999:1360).

According to the hypothesis underlying the Social Learning theory (Ormrod 1993), multiple social interactions are key elements for children to learn to be altruistic. These interactions include adult role modelling of ideal behaviours, dialectic interaction that stimulate understanding, awareness and development of altruistic ideas and role playing instruction designed to help increase children’s understanding of their own competencies for helping others (Simmons and Sands-Dudelczyk 1983). These underlying approaches suggest that teaching strategies can be developed that will guide children to become more cognizant of prosocial behaviour and promote more prosocial tendencies (Zahn-Waxler *et al.* 1992). Assuming, then, that what teachers do within the classroom can have an impact on the interpersonal development of their students, then it is essential to comprehend how children and youth interpret and react in circumstances where prosocial behaviour comes into play.

## **Context of Research**

Part of the research carried out within the framework of the international research project entitled *Citizens of the future: the concerns and actions of young people around current European and global issues* (The European Collaborative Research Projects in the Social Sciences 2006 - European Science Foundation<sup>1</sup>) included an activity called the Ultimatum Game (UG) designed to delve into children and youth’s reaction to their partner’s distribution of money and whether they distribute money in “a broadly prosocial manner” (Ross, this volume). This activity was carried out with three different age groups in Spain<sup>ii</sup>, Turkey, Poland and the United Kingdom. In the first year, the activity consisted of pairs in the

same school. In the second year, the design of the activity included the possibility of pairing half of the subjects with another city in the same country and the other half of the subjects with students of their same age group in another country. In the case of Spain, students from Barcelona were paired with same-age students from Cordoba<sup>iii</sup> and the second set of students were paired with same-age students in Warsaw, Poland<sup>iv</sup>. This article discusses the interaction that took place in the Barcelona schools in the second year only.

The students came from four different education institutions in two cities and the total number of students involved were 175 from 3 different age groups. The public secondary school in Cordoba (IES Luis Ibáñez<sup>v</sup>) is one of the oldest and largest education centres in the city. The students are from different social and cultural backgrounds with a medium to high socioeconomic background. The school is actively involved in several local and international projects. The primary school in Cordoba (CEIP Castro) is also a large education centre, with a diverse student profile. This school, too, is involved in several projects.

The secondary school in Barcelona (IES Ronda) is a public school in a largely working class neighbourhood in the outskirts of the Barcelona metropolitan area. The student profile is largely multicultural, with approximately 10% of newly arrived immigrants. The school promotes an integrated approach to learning, based on collaborative work and close cooperation with the students' families. The primary school (CEIP Aigües), is also located in the outskirts of the Barcelona metropolitan area, in a largely immigrant neighbourhood. The student profile reflects the diversity of the its community.

### **Description of the Exchange**

The Ultimatum Game is a role-play used in research dealing with economic and social theories. In the role-play, two players are asked to make decisions about a single sum of money (see Ross *et al.* in this volume for further description) In this case the participants were two students, one of who is asked to be 'the proposer', the other to be 'the acceptor'. The proposer was given a sum of money – made up of ten "units" (depending on the age group this was either ten coins of one euro or ten bills of five euros). The participants are asked to split this into two sums. The proposer then divides the units into two piles and offers one pile to the acceptor. If the acceptor accepts the division, then both proposer and acceptor get the money as divided. If the acceptor refuses to accept the sum offered, then neither of the two receives anything. These rules were explained to the participants before beginning the game.

The subjects of all three age groups were divided into four sub-groups: students who made offers to their counterparts in Cordoba; students who responded to offers made by students from Cordoba; students who made offers to the group in Warsaw and students who responded to the offers made to them by the Polish groups. The composition of each groups was set up in order to evenly distribute the pairs by sex. Due to logistics of coordinating the activity synchronously (school timetables, lack of technological infrastructure, language problems, etc.), the offers-responses took place asynchronously. The students were told the name, gender and location of their partner. In the case of the groups who made the proposals, the students were asked to explain their reasons for the division of money they had made. The groups who were required to respond to their counterpart's offer were informed by the researchers the amount they had been offered. Their decision to accept or reject the proposal was recorded, along with the reasons for their decision.

### **Results of the interaction: the youngest group**

In the majority of cases, in all the age groups, the students split the money equally. Their reasons for doing so varied slightly, however the predominant reason given was that it was the fair thing to do ("*és just*" in Catalan; "*es justo*" in Spanish). In the exchange between Barcelona (offering to) Cordoba, among the 10-11 year old students, only two students out of fifteen broke this pattern.



Fig. 1. Distribution of money by the Spanish 10-11 year olds

In one case, a boy offered four-six (offer of four; keep six for himself), stating that he needed the money because it was a difficult year in Spain and in the second case a girl offered six coins to her partner while keeping four for herself. Her reason for this distribution was to ensure that they would both get to keep the money.

As mentioned earlier, the students in this age group tended to offer five-five, principally because it was the fair thing to do or because it was best to divide equally. In the Barcelona-Cordoba exchange, two students mentioned that neither one of the participants in the partnership had actually “earned” the money; therefore it should be shared equally. The fact that five-five division was “logical” was also mentioned by some of the students. There were more variables in offer from the ten-year old Cordoba students to their partners in Barcelona. Only eight out of the fifteen offered five-five. In two cases, the Cordoba students offered more money to the Barcelona students. In one case, a girl from Cordoba said that since she did not know if her partner needed the money or not, it was best to give a bit more to her partner (six-four). In another example the male student from Cordoba offered seven-three, explaining that he did not need the money.

Interestingly, there were four cases where the students from Cordoba offered less money to their Barcelona partners; in one case four-six and in three examples the students said that they would keep the money entirely to themselves. Their reason for this decision was that they needed the money. The four-six offer was rejected by the Barcelona student based on the fact that the division was not fair. Two out of the three proposals to receive nothing from the division (0-ten) were rejected because it was unfair and that the proposer “had a bad attitude”, however, one student indicated that he/she would accept the decision to not receive any money because the other student probably needed it more than he/she did.

The offers made by the 10-11 year old students from Barcelona to the Polish students were similar to those made to Cordoba. Thirteen of the fifteen offers were five-five. In one case, the offer was four-six (which was rejected by the Polish student as unfair since it should be five-five) and in the other variant sample, the student offered more to the Polish student (eight-two). The student who offered less explained that he needed the money (again, it was indicated that this is a “bad year in Spain”). Before the Barcelona student offered more to her counterpart, she asked the researcher if Poland was “poorer” than Spain and then explained that she would divide eight-two because her partner might “need the money more” than she did. (It should be noted that the researcher did not answer the girl’s question affirmatively or negatively).

In the samples where the young Barcelona students were offered money by their counterparts from Warsaw, the acceptance or rejection of the proposals was more varied (see figure 2).

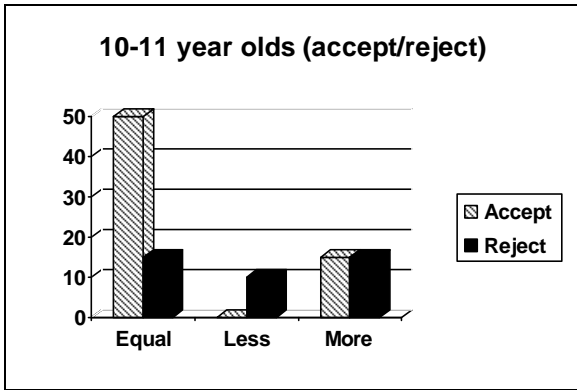


Fig. 2. Barcelona group reaction to offers from Poland

Two of the students who were offered five-five rejected the proposal (six accepted). The reasons given for not accepting an equal division were, arguably, outside of the parameters of the “game”. In one case, the student stated that she did not feel comfortable accepting money that she had not “earned” and in the second case, the student indicated that she could not accept money that was not hers and then further qualified this with the statement that she would have to ask her father whether she could keep the money. In a different example where the Barcelona student was offered more money (seven-three), the offer was still rejected because the division was not “fair”. This was further qualified by the statement that even though ‘things are cheaper in Poland’ the division should still be five-five. The opposite proposal of three-seven was also rejected because it was not “fair” and if the Spanish student had been offering the money, they would have offered an equal amount.

### Results of the interaction: the early adolescent group

There was a bit more variance in the offers from the Barcelona students to the Cordoba students in the 13-14 year old range. While the predominant offer remained five-five, there were two cases where the Barcelona students offered less and three cases where they offered more.

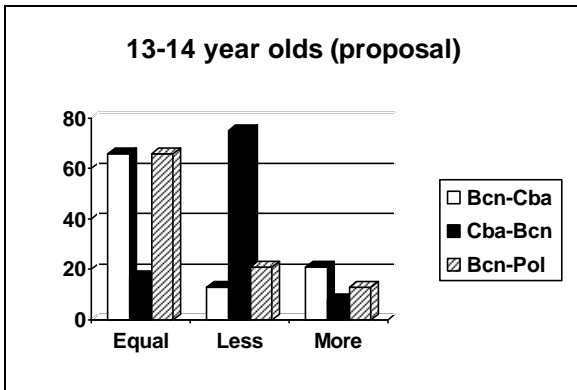


Fig. 3. Distribution of money by the Spanish 13-14 year olds

When the proposals were for less money to their partners; the distribution was considerably more disparate with offers such as two for them - eight to keep (unlike the ten year-olds who tended to offer 1 coin less). Their stated reason for this division was because they needed the money. On the other hand, two students offered the entire 10 money units to their partners, explaining that they did not know where the money came from and that their partner probably needed the money more than the proposer did. In only one case the student offered her Cordoba partner six-four; explaining that this way he could ensure that the proposal was accepted.

There was even more variance in the offers to Barcelona from Cordoba for this age group. Two offered three-seven; two divided the money units evenly, nine offered none for their partner and one student offered all of the money units to their partner. The students who decided to keep all the money stated that they had been the lucky ones to get the money first. It should be pointed out, however, that it appears that these students had not entirely understood the rules of the game and therefore did not take into account that they were clearly running the risk that their partners would refuse their offer and therefore none of

them would get any money (True to this hypothesis, most of their proposals were rejected because they were “not fair”).

In the case of the Cordoba student who offered all of the money to his counterpart in Barcelona, the student explained that he did not need the money whereas possibly his partner did. Considering that the parameters of the exchange were slightly different for this group, this is an interesting example of altruism.

As for Barcelona offers to their partners in Poland, ten out of the fifteen offers were equally divided (five-five) because it was the fair and logical thing to do. One of the students mentioned that it should be this way because neither one of them had actually earned the money themselves so this was the best way to divide up ‘unearned’ spoils. Of the five offers that were not equally distributed, three decided to keep a bigger part for themselves (three-seven; four-six; four-six) because they had been given the first choice and the other two claimed that if they offered one more to their partner, there was a better chance of the offer being accepted.

The majority of the acceptances of the proposals from the students from Poland to the students in Barcelona in this age group were accepted, especially in the evenly distributed proposals. As before, the usual reason for accepting was because it was fair although one student did indicate that he thought it would be rude not to accept the proposal, no matter what the division. In a different vein, one offer was accepted simply because “it’s free money”.



Fig. 4. Barcelona group reaction to offers from Poland

Interestingly, two students refused the money, despite an equal offer of five-five. One of them said he did not need the money and the other one said she had not earned the money so would not accept it on those grounds. The two students who said that they would accept receiving more (six-four) was explained by saying that “we (Spain) are in a crisis”.

#### Results of the interaction: the oldest group

In the oldest group of students, the more usual offer was, once again, an equal division of five-five. The rationale offered for this decision was, as in the other groups, based on a sense of fairness and equality, although the answers were elaborated a bit more. For instance, in the Barcelona-Cordoba exchange, some students stated that it was fair and that the other partner had as much right to the money as the person who made the offer did and an even division would allow them to ‘enjoy the money’ equally.

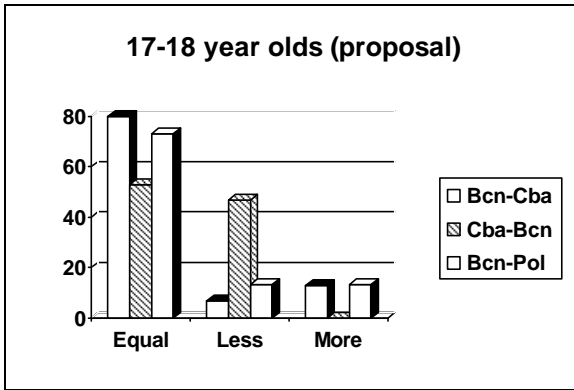


Fig. 5. Distribution of money by the 17-18 year olds

Once more, the idea that the money had not been rightfully ‘earned’ by the game players emerged in the answers of the students and provided further justification of why they would divide the money evenly. In two cases where the person offering the money gave all (or in one case nine out of ten) money units to their partners the reasons were similar to the answers given by the younger groups: “I don’t need the money and perhaps my exchange partner does.” In only one case the person offering money decided to keep nine and give one, arguing that the person would probably accept since 1 is better than nothing.

Similarly in the Cordoba-Barcelona exchange, the most usual answer was an equal division of five-five. In the three cases where the Cordoba students offered slightly less the argument was that they had been ‘lucky’ to get the random role of being the one who offered so they felt that this entitled them to a bit more.

As in the other cases of the exchange between Barcelona and Poland, most students offered an equal amount between themselves and the partners. There were two cases wherein the students offered all the money to their partners because their partners probably needed it more than they did, however this should not necessarily be taken as an altruistic gesture. In fact, one of the male students said he would give away all the because he could always ask his father if he needed anything. There was also the reverse case where one student decided to keep all the money because ‘we are in a crisis’ and the student needed the money.

All of the students from Barcelona who were offered five-five by their counterparts in Poland accepted.



Fig. 6. Barcelona group reaction to offers from Poland

There were no offers of less money but there were six offers of more money from Poland to Barcelona. The reaction to this was varied, although more students accepted the higher offer than those who rejected it. Three offers to take all the money (ten-0) were accepted although the students seemed perplexed by the offer. One boy indicated that he did not understand why the Polish girl would offer him all the money but he would take it; another boy stated that if his Polish counterpart (girl) wanted to give it all away that was fine with him however the third person mentioned that, even though he was willing to take the money, he felt “bad” about getting it all. Two students from Barcelona refused to take more money (ten-0; seven-three) because it should be five-five.

### Implications of the findings

Recalling the previously mentioned features of prosocial behaviour such as comforting, sharing, displaying empathy or concern for others (Simmons and Sands-Dudelczyk 1983; Eisenberg et al. 1999), it can be argued that most of the students in this study, of all age groups, demonstrate prosocial behaviour especially in actions of sharing. They also showed considerable empathy in their willingness to give away all the money because the other partner 'might need it more'. At times, the students refused to take the money because it was an unfair distribution and therefore no one should get any of it. Other times, the students indicated concern for the current economic state of their partner, wondering if perhaps their partners in Cordoba or Poland needed the money more than they did.

An unexpected outcome of the research was the marked emphasis the students placed on the concept of 'fairness' and 'justice'. Whether this can be interpreted as an intrinsic motivation for sharing and cooperation cannot be defined here since there is not sufficient data to delve further into the underlying motivations of the students' decisions, nonetheless, the emerging categorisation of this strong sense of justice and equal opportunities is significant. Other research that also employ the Ultimatum Game correlate this finding that receiving monetary reward is not always the most relevant factor in social interactions. According to Fehr and Schmidt (1999) sensibility to fairness is important and Bicchierrri and Chavez (2008) argue that the role of a social norm for fairness has an impact on the offer and/or rejection of the proposal.

In a similar vein, research into children's sense of fairness was carried out by McGillicuddy-DeLsis, McGillicuddy-DeLsis and Van Gulik (2006). Their study also involved monetary distribution, although rather than using the Ultimatum Game, this research was contextualised within a situation of distributing rewards for artwork. The findings of this research indicate that younger children were more likely to allocate the money based on principles of equality, equity, and benevolence. According to the authors, this implies that the younger students are at an ideal age for emphasizing social justice, modelled through pedagogical reasoning tasks. This is supported by a recent study that looked at kindergarten children's primary intuitions concerning fairness, focusing especially on the discursive community created by the other children and the teacher (Tatsis, Kafoussi and Skoumpourdi 2008). It has been argued that fairness rules play an increasing dominant role in intergroup allocation decisions, along with relative input (Van Avermaet and McClintock 2006) implying that teacher intervention can play an important role in the development of a fairness paradigm.

At the same time, it must be noted that not all the students behaved in an altruistic manner. In several cases this behaviour was qualified by placing the 'blame' on external forces (e.g. the 'crisis' or a greater need for money). Moreover, it must be noted that some of the students indicated a certain disdain for the money at play, indicating that they could 'get money whenever they wanted' from their parents or other sources, implying that there are many factors – collective and individual – that influence the students' decisions.

Of course, as has been pointed out earlier, societies are experiencing significant political, economic and technological changes, placing the school in an important strategic position for enacting a wide range of alternative pedagogical approaches for promoting prosocial behaviour. These strategies should focus positively on influencing students' attitudes, motivation, and value system, not simply providing knowledge. An important starting point for this is the previous knowledge and attitudes of the students. For this, studies into students' reactions and behaviour in situations such as the one outlined in this research can provide important input for pinpointing where to begin.

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<sup>iii</sup> Elena Briones is responsible for the data corpus from Cordoba.

<sup>iv</sup> Anna Zalewska is responsible for the data corpus from Warsaw.

<sup>v</sup> Names of the schools have been changed.