

## EQUITY AND DOMINANCE IN PRESCHOOLERS\*

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### INTRODUCTION

Recent research tends to define dominance not merely as an individual characteristic but as a phenomenon involving the whole group. It could be understood as a situation of social exchange in which each member of the group obtains outcomes proportional to the inputs he brings to it. Within the study of social exchange this phenomenon could be considered from Adams' Equity Theory (Adams, 1963); the dominant individual would receive the most in terms of attention and submission by others, due to his contributing the most in terms of some investments.

Until recently, research on the development of the equity notion had concluded that preschoolers have not acquired yet the skill for understanding the ratio investment-outcome (Hook and Cook, 1979). But all these studies were experimental and determined previously and very specifically the two terms in the equation: *investment = success in task/outcome = reward*.

Graziano (1978) posed the possibility that young children understand the equitable exchange in terms different from those of adults, respecting the kind of investment required for obtaining a reward. Thus, he proved experimentally that young children give more rewards to taller and older others. He interpretes his results in terms of a relation between size-age and the child's notion of power.

Almost all the studies on equity in children are experimental; we thought it would be interesting to carry out an observational study, using ethological methodology, to see what. Relation can be established between equity (in Adam's terms) and dominance, and what kind. Of investment the dominant individual makes to the group.

With this purpose, a pilot observational study of preschoolers' free play behaviour was carried out as a preliminary phase of an ongoing research. We tried to ascertain whether every dominant individual uses the same resources as investment and whether everyone obtains the same outcomes. So we selected two children as focal individuals, almost equally dominant and equally sociable (this factor could be an extraneous variable affecting children's relations).

## METHOD

*Setting and subjects.* The study was carried out in a kindergarten (in Granada, Spain) chosen because of its meeting suitable conditions for observation, as well as children with freedom of movement enough for us to record their behaviour without the interference of adults.

The focal individuals were two male children: Ceci, aged 5, and Antonio, aged 6, both preschoolers. The criteria for selecting these two children were their similarity as far as dominance and sociability was concerned, as we knew from teachers and from our own observation in the stages previous to the systematic recording. The other children in preschool classes (38 distributed into two classes) were also observed, specially those interacting with either focal child.

*Sampling methods.* The observation period took place during the last two months in the school year, with 120 hours of observation. A preliminary stage of nonsystematic observation allowed us to establish a list of behaviours and to become familiar with the subjects (and viceversa). Then, during two weeks, a sampling of all occurrences of some behaviours was made, recording also the sender, the receiver and the receiver's response.

In the next stage, a sequence sampling was employed, in order to detect differences in behaviour sequences in similar situations. Finally, a focal-individual sampling was carried out on the two children, alternately; in this phase we made also video recordings. Both observation and video recordings were made outdoors, allowing a lesser obstruction in children's activities.

Whenever possible, both kinds of record were carried out coordinately; filming from the distance the same interaction, the other observer was recording in vivo. Interobserver agreement was calculated by two observers in vivo, yielding a kappa=0,68.

*Behaviour categories.* The behaviours selected for systematic observation can be grouped into 6 broad categories:

### 1) Dominance (agonistic)

*displacing:* forcing the other to leave a place and occupying it.

*taking object from other:* by force with or without struggle.

*order:* verbal or gestual.

*agression:* verbal or physical.

*threat:* verbal or gestual.

*rejection:* refusing a proposal or a petition from other. Telling him/her to go away.

### 2) Submission

2.1. Positive (directed to the dominant individual). *obeying.*

*consulting:* asking for permission or support to a proposal.

2.2. Negative (avoidance)

*retreat*

*deviate look* (after a threat)

2.3. Pasive

*no response:* no reacting to an aggression threat or object taking.

### 3) Leadership (directive)

*following* (physically)

*imitation*

### 4) Attention orientation:

*attracting attention:* actively, toward oneself or toward any other thing.

*initiating movement:* from a static position of the group, starting to move, whether

being followed or not (this is not the same as leaving the group, since the child expresses his desire of being followed).

5) Cohesive behaviour

- affiliative contact: embracing, tapping on the back etc.
- giving object
- praise

6) Sociability

- smile
- gaze: at another.

**RESULTS**

The calculation of behaviour frequencies (no, of times a given behaviour appears divided by total no, of that child's behaviours) yields results rather similar for the two children in some categories and rather different in others.

*In dominance* they are very close, excepting aggression (mainly verbal) and rejection, clearly higher for Ceci (see table 1.a).

*In submission* the difference is greater and reflects also the distinction between two types of submissive behaviour (see categories). A striking difference can be noticed between the two children in this sense, with Ceci receiving more submissive responses of the positive type and Antonio of the negative type (see table 1.b). The high frequency of "non response" (for Ceci can be related to the high amount of aggression in this child; that behaviour appeared almost always after this one in the sequence records.

*In leadership* a clear advantage appears for Ceci, mainly due to imitation (see table 1.c).

*In attention orientation* on the other hand, Antonio stands out, above all in the behaviour related with attracting or redirecting attention from others (see table 1.d).

*In cohesive behaviour*, Ceci's scores are rather higher than Antonio's, both as a sender and as a receiver (see table 1.e).

Finally, the scores in *sociability* are relatively close in both children, the difference being almost the same as that for dominance. As shown in table 1.f, the greater difference is in gaze; Antonio is higher as a sender, whereas Ceci receives more gaze from others than he sends.

**TABLES. RESULTS**

(frequencies/total number of behaviours X 1000)

**TABLE 1.A.  
DOMINANCE**

	SENDER		RECEIVER	
	Ceci	Antonio	Ceci	Antonio
Displacing	18	16	7	2
Taking object	42	41	7	7
Order	75	87	16	4
Agression	47	11	4	2
Threat	20	23	2	7
Reject	11	4	4	7
<b>TOTAL</b>	<b>213</b>	<b>182</b>	<b>40</b>	<b>29</b>

**TABLE 1.B.  
SUBMISSION**

	SENDER		RECEIVER	
	Ceci	Antonio	Ceci	Antonio
Obey	0	0	27	2
Consult	0	16	7	4
Retreat	2	0	0	16
Deviating look	0	0	4	16
Non response	4	4	22	9
<b>TOTAL</b>	<b>6</b>	<b>20</b>	<b>96</b>	<b>47</b>

**TABLE 1.C.  
LEADERSHIP**

	SENDER		RECEIVER	
	Ceci	Antonio	Ceci	Antonio
Following	11	16	49	46
Imitation	9	14	51	5
<b>TOTAL</b>	<b>20</b>	<b>30</b>	<b>100</b>	<b>51</b>

**TABLE 1.D.  
ATTENTION ORIENTATION**

	SENDER		RECEIVER	
	Ceci	Antonio	Ceci	Antonio
Attracting att.	55	103	44	41
Initiating mov.	20	34	0	0
<b>TOTAL</b>	<b>75</b>	<b>137</b>	<b>44</b>	<b>41</b>

**TABLE 1.E.  
COHESIVE BEHAVIOUR**

	SENDER		RECEIVER	
	Ceci	Antonio	Ceci	Antonio
Affil. contact	7	7	9	2
Giving object	18	7	9	2
Praise	16	0	2	0
<b>TOTAL</b>	<b>41</b>	<b>14</b>	<b>20</b>	<b>4</b>

**TABLE 1.F.  
SOCIABILITY**

	SENDER		RECEIVER	
	Ceci	Antonio	Ceci	Antonio
Smile	35	37	20	27
Gaze	142	176	180	167
<b>TOTAL</b>	<b>177</b>	<b>213</b>	<b>200</b>	<b>194</b>

## DISCUSSION

These results, however not definitive, due to the pilot character of our study, reflect a rather clear difference between two kinds of strategy to obtain dominant status.

From the interactions each focal child maintained with the others, a difference is noticed as far as the results of these interactions are concerned. Thus, we have observed that, while Ceci usually interacts with the same group of children, forming a stable structure, this is not true for Antonio; he has no stable group of followers, and shifts a lot with respect to playmates (this difference is reflected in leadership, higher for Ceci).

Neither the differences in dominance nor the differences in sociability are great enough to account for this situation; the two children are dominant over the rest of the children, and both are sociable. Moreover, the slightly higher scores for Ceci in dominance are compensated by the slightly higher ones for Antonio in sociability. Furthermore dominance and sociability seems not to account for the different type of submissive responses received by each child, either.

A possible explanation would be in the categories of attention orientation and cohesive behaviour; Antonio stands out in the former, and Ceci in the latter. This difference can be understood as the use of two social resources to obtain dominant status over the others. Posed in terms of Equity Theory, the investment of the two children is different. While Antonio uses mainly resources for attract the attention of others, Ceci employs preferentially cohesive-affiliative means in his interaction with followers. Looking at the quantitative differences, not only the qualitative ones, between the two children's investments, we can see that, to obtain virtually the same results (being dominant) the endeavour and costs are much higher for Antonio than for Ceci. Furthermore, if we think that being dominant requires submission by others, we see that Ceci, with a quantitatively lower investment, obtains much better outcomes.

A conclusion that can be drawn from the present study is that young children are able to establish subtle equity relationships that have important effects in the group structure; thus, for example, not all the social strategies used for a given goal (in this case dominance) are equally effective in subordinates, although they may be equally suitable. In terms of the cost-benefit ratio, cohesive resources are much more profitable than attentional ones.

## REFERENCES

- Adams, J.S. Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 1963, 67, 422-436.
- Graziano, W.G. Standards of fair play in same-age and mixed-age groups of children. *Developmental Psychology* 1978, 14, 524-530.
- Hook, J.G.; Cook, T.D. Equity theory and the cognitive ability of children *Psychological Bulletin* 1979, 86, 429-445.