



Cooperative Behaviors of 18 and 24 Months old Children in Daycares: Stability and Interaction with Daycare's Quality

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INTRODUCTION

- ☐ Children attending daycares are experiencing lots of stimulation and are expected to cooperate with the educator to facilitate positives interactions within the group in order to adapt well.
- ☐ However, early entry into daycare and extensive attendance appear to be related to less cooperation from toddlers [4].
- ☐ Thus, interactions between earlier behaviors and daycare' environmental characteristics appear to predict later behaviors [5].
- ☐ Therefore, attending a good quality daycare early in life may enhance the child's development by offering interactions that promote cooperation.
 - ✓ Process quality includes 3 dimensions: physical setting, curriculum and interactions.
 - ✓ Educator' training is a structural quality variable associated with more knowledge about child development and curriculum.

OBJECTIVE

The objective of this study is to examine if the infant cooperation, daycare quality and their interaction are linked to the cooperative behaviors of toddlers attending daycares since the first year of life.

METHOD

- Sample**
- ☐ 64 children (32 girls) attending subsidized educational daycares since their first year of life ($M = 10$ months)
- Procedures**
- ☐ Recruitment from 2004 to 2006 in Montreal & Montérégie (QC, Canada)
 - ☐ Data collection took place when children were 18 and 24 months old:
 - ✓ Trained observers evaluate their cooperative behaviors
 - ✓ Trained observers evaluate daycare quality

Measures
Table 1. Measures

Variable	Instrument
Cooperative behaviors	Behavior Rating Scale (BRS) of the Bayley Scale of Infant Development-II [1]. While the child performs motor and cognitive tasks, his cooperation is observed to complete the BRS. <ul style="list-style-type: none"> ✓ Higher score = better cooperative behaviors ✓ Negative skewness of scores= logarithmic transformation
Process quality	Educative Quality Observation Scales (EQOS) [2,3]. <ul style="list-style-type: none"> ✓ Quality of the physical setting ✓ Quality of the activities program ✓ Quality of the interactions
Structural quality	Educator fills a questionnaire collecting information about training.

RESULTS

Table 2. Summary of hierarchical regression analysis for child' and daycare' variables and their interactions predicting cooperative behaviors at 24 months

Variables	B	SE B	β	ΔR^2
Step 1				
-Cooperative behaviors 18 months	.42	.13	.37*	.14*
Step 2				
- Quality – physical setting	-.03	.38	-.01	.05
- Quality – activities program	.16	.25	.09	
- Quality – interactions	-.15	.30	-.09	
- Educator' training	.26	.18	.19	
Step 3				
1-Cooperative behaviors X quality – physical setting ^a	-.22	.08	-.31*	.10*
2-Cooperative behaviors X quality - activities program ^a	-.14	.07	-.23	.06
3-Cooperative behaviors X quality - interactions ^a	-.07	.07	-.12	.02
4-Cooperative behaviors X educator' training ^a	-.06	.08	-.09	.01

* $p < .05$ Note. $R^2 = .14$ ($p = .00$) for step 1; $R^2 = .18$ ($p = .49$) for step 2, $R^2 = .28$ ($p = .01$) for step 3.1; $R^2 = .23$ ($p = .06$) for step 3.2; $R^2 = .20$ ($p = .31$) for step 3.3; $R^2 = .19$ ($p = .45$) for step 3.4
^aAll interactions were included in separate analyses, along with all independent variables in Step #1 and #2.

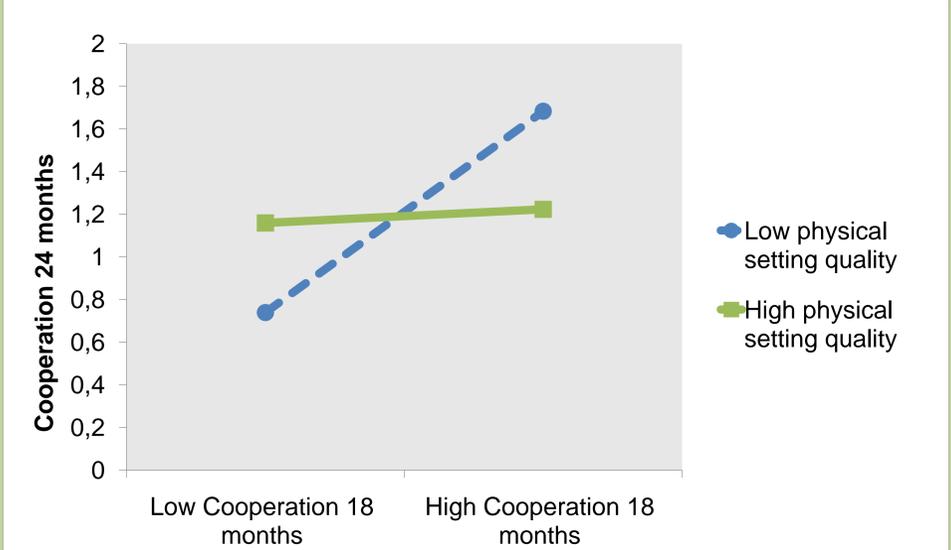


Figure 1. Interaction between cooperation at 18 months and quality of the physical setting at 18 months predicting cooperation at 24 months

- Higher quality of the physical setting**
- ✓ Low and high cooperative infants in high quality daycares are showing the same level of cooperative behaviors in toddlerhood.
- Lower quality of the physical setting**
- ✓ Low cooperative infants attending low quality daycares obtain the lowest cooperation score at 24 months.
 - ✓ High cooperative infants attending low quality daycare s obtain the highest cooperation score at 24 months.

DISCUSSION

- Stability**
- ☐ Less cooperative infants tend to remain less cooperative toddlers. Therefore, environment needs to present characteristics that may alter that stability.
- High quality of the physical setting**
- ☐ An environment appropriate to children's developmental stage in which they can perform independently with a variety of stimulating material seems to **promote cooperative behaviors from all children.**
- Low quality of the physical setting**
- ☐ **Less cooperative** infants seem susceptible to low quality.
 - ✓ They may react to an environment offering fewer possibilities for active learning, less variety and access to interesting material, less freedom in space, material inappropriate to developmental stage, etc.
 - ☐ **High cooperative** infants appear less affected by low quality. Already highly cooperative infants may learn more cooperative strategies to adapt well in any conditions.
 - ☐ **Child's temperament** may be related to cooperative behaviors and could explain why, in low quality setting, easy infants increase their cooperation to adapt to their environment even if it is more demanding (crowded, noisy or structured) whereas difficult infants need their environment to adapt to them.

CONCLUSION

- This study suggests that cooperative behaviors in infancy interact with quality of the physical setting to explain cooperative behaviors in toddlerhood whereas less cooperative infants experiencing low physical setting quality obtained the lowest cooperation score at 24 months.**
- ☐ Attention should be paid to quality of the physical setting in order to foster cooperative behaviors of all children.
 - ☐ Research should explore the role of infant's temperament in the association between daycare' quality and children's cooperative behaviors.

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