Children’s explicit and implicit school satisfactions
A comparison between low- and medium-ses elementary schools in France

Laurent Cordonier

Electronic version
URL: https://journals.openedition.org/ress/5272
DOI: 10.4000/ress.5272
ISBN: 1663-4446
ISSN: 1663-4446

Printed version
Date of publication: 30 May 2019
Number of pages: 211-235
ISSN: 0048-8046

Electronic reference
Laurent Cordonier, "Children's explicit and implicit school satisfactions", Revue européenne des sciences sociales [Online], 57-1 | 2019, Online since 01 January 2023, connection on 03 January 2023. URL: http://journals.openedition.org/ress/5272 ; DOI: https://doi.org/10.4000/ress.5272

All rights reserved
CHILDREN’S EXPLICIT AND IMPLICIT SCHOOL SATISFACTIONS

A COMPARISON BETWEEN LOW- AND MEDIUM-SES ELEMENTARY SCHOOLS IN FRANCE

LAURENT CORDONIÈR
Paris Diderot University, LIED – University of Lausanne, THEMA
laurent.cordonier@gmail.com

Abstract. This study compares explicit and implicit school satisfactions of children attending low- and medium-socioeconomic status (SES) elementary schools. An implicit association test was specifically designed to assess children’s implicit perception of school, and a questionnaire was used to measure their explicit perception of school. In line with previous studies, it was found that a school’s SES does not have a significant impact on children’s explicit perception of school. To the contrary, it was found that children attending medium-SES schools displayed a more positive implicit perception of school than children attending low-SES schools. Moreover, explicit and implicit perceptions of school are correlated in children from medium-SES schools, but not in children from low-SES schools. The results are discussed from a Bourdieusian perspective. This exploratory study highlights the value of assessing expected differences in habitus between distinct populations by using implicit paradigms rather than explicit questionnaires.

Keywords: elementary school, habitus, implicit association test, implicit perception of school, school satisfaction.


Mots-clés: école élémentaire, habitus, perception scolaire implicite, satisfaction scolaire, test d’association implicite.
INTRODUCTION

In France and in most other OECD countries, academic success is mediated by socioeconomic differences at students’ level, as well as by schools’ socioeconomic context. It is indeed well documented that children and adolescents from intermediate and high socioeconomic status (SES) families generally perform better in school than socially disadvantaged students (Blanchard and Cayouette-Remblière, 2016; OECD, 2004; 2010). Moreover, we know that regardless of their own SES background, children and adolescents attending medium- or high-SES schools—that is, schools whose students are on average from medium- or high-SES background—tend to perform better academically than students attending low-SES schools (OECD, 2004; 2010; Perry and McConney, 2010; Perry, 2012). This is partly explained by the difficulties low-SES schools have in attracting and retaining talented, motivated, and supportive teachers (OECD, 2004; 2010; Perry, 2012). To understand this phenomenon, it is also important to take into account peers effects (see e.g., Hanushek, Kain, Markman and Rivkin, 2001; Perry 2012). For instance, Perry (2012, p.4) argues that “when a school has a large number of students who are academically prepared and motivated, a culture of achievement is created in the school that lifts up the achievement of students from lower SES backgrounds”.

However, how can we explain that even after controlling for schools’ context, students from low-SES backgrounds still have poorer academic performances and achievements than other students (OECD, 2004, p.186-191)? Bourdieu and Passeron’s (1964; 1970) classical explanation is that, contrary to socially disadvantaged children, those from medium- and high-SES families inherit cultural competencies from their parents that are in line with scholar requirements, such as socially-valued linguistic competencies (as well as legitimate linguistic usages or “codes”, as shown by Bernstein, 1975). Moreover, differences in socialization would lead children from medium- and high-SES families to develop habitus—i.e., “system[s] of lasting, transposable dispositions” (Bourdieu, 1977 [1972], p.95)—that are more favorable to school success than those internalized by low-SES children. For instance, the disposition to engage in school activities, which has been shown to favor
high academic performance (see Skinner and Pitzer, 2012), is mostly found among children from medium- and high-SES families (e.g., Berends, 1995; Kelly, 2008; 2009; Li, Lynch, Kalvin, Liu and Lerner, 2011).

If it is true that habitus of children from medium- and high-SES families are on average better attuned to school requirements and constraints than those of lower-SES children, one should observe that the former are more likely than the latter to feel comfortable and satisfied at school (i.e., to feel “at home” at school). Bourdieu and Passeron (1964) argue that children from modest social backgrounds have to go through a genuine acculturation process to adapt to the school culture. This is corroborated by field observations showing that, as early as in kindergarten, school socialization of children from low-SES breaks with their family socialization, contrary to what happens in more advantaged children (Darmon, 2001). Such an acculturation process is potentially destabilizing and stressful for these children, which could lead them to develop a less positive perception of school than higher-SES children. This would contribute to explaining why medium- and high-SES children obtain better academic results, since several studies conducted in France and in other countries have found a positive link between students’ school satisfaction and academic performance (e.g., Bacro, Guimard, Florin, Ferrière & Gaudonville, 2017; Fenouillet, Heutte, Martin-Krumm and Boniwell, 2014; Suldo, Riley and Shaffer, 2006).

Quite surprisingly, however, empirical data do not seem to support this prediction. As summarized by Elmore and Huebner (2010, p.526), “school satisfaction has been found to be unrelated or related modestly at best to demographic variables, such as gender, age, and socioeconomic status” (see also Baker and Maupin, 2009; Bacro et al., 2017). In this study, I hypothesize that previous

1 “Une certaine forme de socialisation familiale [celle des classes moyennes et supérieures] scolarise déjà l’enfant. L’enfant ‘bien’ socialisé est prédestiné au scolaire, déjà scolaire, déjà scolarisé” (p.522). “Le discours de l’institutrice sur la rupture entre les mondes sociaux que sont l’école et la famille semble bien plus insistant en direction des enfants d’origine populaire. Cette distinction serait donc plus fortement imposée aux enfants d’origine familiale ‘non scolaire’, pour qui l’école serait construite comme un monde social radicalement ‘autre’, alors que ce serait la continuité qui présiderait à l’établissement des relations entre école et famille pour les enfants d’origine sociale élevée” (p.537).

2 Contrary to school satisfaction, students’ sense of belonging at school—defined as “feeling
works failed to observe a link between school satisfaction and students’ SES or schools’ SES because of the methodology used.

School satisfaction is generally assessed using Likert scale questionnaires with items of the type “I like school”, “I like being in school”, “Most mornings I look forward to going to school” (see for e.g., Hawkins, Guo, Hill, Battin-Pearson and Abbott, 2001; Huebner, Zullig and Saha, 2012). Students are thus explicitly asked to self-evaluate how they perceive school. This methodology rests on a twofold assumption: first, that students have clear access to their own perception of school; second, that they report it honestly and without self-deception. Yet, these assumptions are questionable. It cannot be excluded that some children find desirable to “like school very much” and report explicitly that they do, even if their implicit dispositions toward school are not so positive (or vice versa). This possibility is supported by empirical findings showing that explicit and implicit school satisfactions are two relatively independent variables (Tian, Liu and Gilman, 2010). More broadly, from a Bourdieusian perspective, individuals do not necessarily have reflexive, explicit access to the content of their habitus, namely, to their internalized dispositions that function “as a matrix of perceptions, appreciations, and actions” (Bourdieu, 1977 [1972], p.95; 1980). Consequently, explicit questionnaires may fail to capture actual, and potentially implicit differences in children perception of school depending on their social origin.

In the present study, I aimed at comparing the implicit perception of school between children attending low- versus medium-SES schools. To do so, I specifically designed an Implicit Association Test (IAT) targeting their school satisfaction. IATs are widely used in social, developmental, and cognitive psychology to assess adults’ as well as children’s implicit perceptions, stereotypes, attitudes, and dispositions toward a broad range of target constructs, such as ethnicity, gender, or mathematics (see for instance, Baron and Banaji, 2006; Blaison, Chassard, Kop and Gana, 2006; Cvencek, Meltzoff and Kapur, 2014; Greenwald, McGhee
and Schwartz, 1998). This IAT was administered to elementary school children, since differences in perception of school depending on students’ background and schools’ context are likely to manifest early in the academic career. Explicit school satisfaction of these children was also assessed by questionnaire to allow comparison with their implicit perception of school. I hypothesized, first, that children attending medium-SES schools would display a more positive implicit perception of school than those attending low-SES schools and, second, that in line with previous works, explicit perception of school would not differ significantly between children from medium- and low-SES schools.

I. MATERIAL AND METHOD

1.1. PARTICIPANTS

Principals from five elementary schools located in the outskirts of a small-sized French town and in adjoining villages accepted to participate in our study. Based on demographic data available to the school principals, and in accordance with their own assessment of the average SES of their school, three schools were classified as medium-SES schools, and two as low-SES schools. The two low-SES schools are part of a national program supporting education in socially disadvantaged regions of the country (a program called “Réseau d’éducation prioritaire”), which corroborates the validity of this classification.

In each of the five schools, one CE2-grade teacher (3rd grade French equivalent) was asked to give to the children of his class a letter for their parents, which explained the study and requested their participation. Three classes were mixed-grade classes, hosting children from CE2-grade and CE1-grade (2nd grade French equivalent). The five classes comprised between 19 and 24 children each, 108 in total. 78% of the children were authorized by their parents to take part in this study (73% of the CE2-grade children from low-SES schools, 78% of the CE2-grade children from medium-SES schools, and 87% of the CE1-grade children). CE1-grade children for whom their parents gave their consent were tested in a control condition of the IAT described below. Thus, I tested individually in quiet rooms next to the classrooms a total of 84 children: 32 CE2-grade children from low-SES schools (mean age: 8; 16
Laurent Cordonier: Children’s explicit and implicit school satisfactions.

girls), 32 CE2-grade children from medium-SES schools (mean age: 7.8; 19 girls), and 20 CE1-grade children from medium-SES schools (mean age: 6.8; 11 girls). Each individual test session lasted approximately twenty minutes.

School principals provided us with personal data sheets from the parents of the children authorized to participate in this study. In four of the five classes (two classes in the low-SES schools and two classes in the medium-SES schools), personal data sheets included parents’ professional occupations, which were codified using the standard INSEE (2003) classification. As exposed in Table 1, parents of children belonging to classes in medium-SES schools have higher occupational status than parents of children belonging to classes in low-SES schools, and they occupy mainly intermediate professions. These classes are thus representative of the average SES of their school.

Table 1. Self-reported parental occupation in four out of the five school classes included in this study
1.2. IMPLICIT PERCEPTION OF SCHOOL: IMPLICIT SCORES

To assess children’s implicit perception of school, I designed a Personalized Single Category Implicit Association Test (SC-IAT-P) on the basis of the “paper-and-pencil” version of this test developed and validated by Bardin, Perrissol, Py, Fos, and Souchon (2016). I used the SC-IAT-P because it measures individuals’ attitude toward a single target concept—“school”, in the present case—, whereas other IAT versions require the opposition of two target concepts (Karpinski and Steinman, 2006). Moreover, the SC-IAT-P is specifically designed to ensure that what is measured is the individuals’ personal attitude toward the target concept, rather than the common social perception of this concept (see Bardin, Perrissol, Py, Launay and Escoubès, 2014; De Houwer, Custers and De Clercq, 2006; Olson and Fazio, 2004).

The SC-IAT-P is a categorization task involving a target concept (“school”, in this study), and two opposite evaluative attributes: “I dislike” and “I like”. It works as follows. A picture representing the “I dislike” category is located on one side of a computer monitor, and a picture representing the “I like” category is located on the opposite side of the screen. A picture representing the target concept category is displayed just under the “I dislike” picture during one phase of the task, and just under the “I like” picture during the other phase (see Figures 1.a and 1.d). Next, a series of items, each corresponding to one of the three categories (target, dislike, like), are displayed one by one in the center of the screen (see Figures 1.b and 1.c). During each phase of the test, the participant has to classify them in the correct category by using two push buttons. When the item corresponds to a category located on the left side of the screen, he/she has to push on the left button, and vice versa. The participant is instructed to categorize correctly as many items as possible during a limited period of time (usually 30 seconds). The procedure is repeated twice: once for each phase of the test.

The assumption underlying the task is that a participant would categorize correctly a greater number of items when the target concept is located on the same side as the evaluative attribute he/she implicitly associates with it, than when it is located on the same side as the opposite evaluative attribute. It is
indeed cognitively less demanding, and therefore faster to classify together—in pushing on the same button—distinct items that are mentally associated, than to classify together conflicting items (see Greenwald et al., 1998). In the present study, a greater number of items correctly categorized when “school” and “I like” categories are located on the same side of the screen (second phase of the test; see below) than when they are located at the opposite of each other (first phase), thus indicating a positive implicit disposition toward school.

The SC-IAT-P was set up on a 13.3-inch Apple MacBook Air laptop screen. The laptop was placed on a table, the child sitting in front of it at a distance of approximately 50 cm from the screen. The picture representing the target concept “school” was a black and white drawing of a school building under which was written “École” (school). The “I dislike” category was represented by a very sad yellow emoticon face under which was written “Je n’aime pas” (I dislike), and the “I like” category by a very happy yellow emoticon face under which was written “J’aime” (I like). I used six black and white school pictograms (e.g., a boy in school raising his hand) as items corresponding to the target concept “school”. The items of the category “I like” were six color drawings depicting positive situations: a smiling boy/girl receiving a gift; an happy boy/girl laughing; two different drawings showing three children playing together and laughing. The items of the category “I dislike” were six color drawings depicting negative situations: a sick boy/girl, sad and trembling with fever; a boy/girl injured and crying; a very sad boy/girl crying. The participant used two 8 cm diameter buttons placed side by side on the table to classify the items (he/she was asked to keep his/her hands on the buttons during the whole experiment). The left button was green, the right button blue. A large green arrow pointing left was located above the green button, and a large blue arrow pointing right was located above the blue button.

**Introductory phase:** I introduced the task by announcing to the child that he/she was going to play a game in which he/she would have to classify pictures. Then, I introduced all the items to the child, beginning with the “school” items. First, the drawing of the school building was displayed in the center of the screen. I explained to the child that this drawing repre-
sented a school. Then, the six school pictograms were displayed one by one under this drawing. I described to the child each pictogram (e.g. “Look, this is a boy in school. He is raising his hand to answer a question”). Next, I introduced the “I dislike” items in the same way. All these items were associated with the sad emoticon face. After the presentation of each “I dislike” item, I asked the child whether he/she disliked the situation depicted on the drawing (e.g., “Look, this girl is sick, she is sad. She doesn’t like being sick. You don’t like being sick either, don’t you?”). None of the children reported liking one of the situations depicted on those drawings. The same procedure was followed to introduce the “I like” items, which were associated with the happy emoticon face. None of the children reported disliking one of the situations depicted on those items. Finally, once all items had been introduced separately, they were displayed once again, this time grouped by category: first, all the “school” pictograms together under the school drawing, second all the “I dislike” drawings together under the sad emoticon face, finally all the “I like” drawings together under the happy emoticon face.

**Demonstration phase**: After the introductory phase, I demonstrated to the child how to “play the game”. The demonstration phase always had the same configuration across subjects. The first image displayed on the screen encompassed: the “I dislike” emoticon face in the top left corner with the drawing of the school building just under it, and the “I like” emoticon face in the top right corner. Additionally, there were a large green arrow centered in the upper half of the screen pointing in direction of both the “I dislike” emoticon face and the drawing of the school, as well as a large blue arrow in front of it, pointing in direction of the “I like” emoticon face (see Figure 1.a). Then, one of the “school” items to classify appeared centered in the lower half of the screen (see Figure 1.b). I explained to the child that he/she had to push on the green, left button to correctly classify it since the drawing of the school was located on the left side of the screen, where the green arrow pointed. When the child pushed on the button, this item disappeared and was immediately replaced by a second item: one of the “I dislike” items (see Figure 1.c). The child had to push on the left button again because the “I dislike” emoticon
face was also located on the left side of the screen. The next item displayed was one of the “I like” items. This time, the child had to push on the right button because the “I like” emoticon face was located on the right side of the screen. Next in the demonstration phase, as well as in the rest of the task, one item displayed out of two was a “school” item, with the “I dislike” and “I like” items being presented in a randomized order between each of them. I continued the demonstration until the child clearly understood the task, namely, until he/she pushed on the correct button three times in a row and was able to explain correctly why he/she made these decisions.

First training phase “School / I dislike”: After the demonstration phase, the child was trained to complete the exact same task in the same configuration (i.e., the “School” and “I dislike” categories grouped on the left side of the screen; see Figure 1.a), but in a time-limited condition. During 15 seconds, the child had to classify correctly a maximum of items. I asked him/her to be as fast as he/she could, while making as few errors as possible. No feedback was given to the child after his/her answers: whether he/she made mistakes or not, the task continued in the same way.

First test phase “School / I dislike”: The first test phase was exactly the same as the first training phase, except that the child had this time 30 seconds to classify correctly a maximum of items.

Second training phase “School / I like”: The second training phase was the same as the first one, except that the drawing of the school was this time located under the “I like” emoticon face, on the right side of the screen (see Figure 1.d). Before starting the second training phase, I explained to the child that he/she had now to push on the blue button (the one located on his/her right) to correctly classify the “school” items, adding that nothing else had changed.

Second test phase “School / I like”: The second test phase was exactly the same as the second training phase, except that the child had 30 seconds to classify correctly a maximum of items.
It is worth noting that the order of presentation of the two test phases was not counterbalance between participants (i.e., the “School / I dislike” phase was always presented first, and the “School / I like” phase second). The rationale was to allow unbiased inter-comparison between children’s Implicit Scores (Blaison et al., 2006). However, one can expect that in this configuration our SC-IAT-P would slightly underestimate the positive perception of school, but to the same extent for each child (see Blaison et al., 2006). To evaluate the weight of this expected order effect, and to confirm its direction, an independent group of CE1-grade children was tested with the exact same SC-IAT-P, but in a counterbalanced design.

Data reduction: The Implicit Score of each child was established with the procedure recommended by Lemm, Lane, Sattler, Khan, and Nosek (2008) and Bardin and colleagues (2016). First, I counted the number of items the child categorized during the first test phase of the task. Then, the number of items incorrectly categorized by the child was subtracted to the total number of items he/she had categorized. The difference of this subtraction corresponded to the number of points obtained in the first test phase. The same procedure was repeated for the second test phase. The test phase for which the number of points was the highest was called “Phase A”, the other was “Phase B”. Next, the Implicit Score was calculated by applying the following mathematical transformation (Lemm et al., 2008): \((X/Y) \times \sqrt{X-Y}\), where \(X\) is the number of points obtained in Phase A, and \(Y\) is the number of points obtained in Phase B. In order to preserve the directionality of the test, the Implicit Score was multiplied by \(-1\) if the number of points obtained by the child in the first test phase was higher than the number of points he/she obtained in the second test phase. As demonstrated by Lemm and colleagues (2008, §7), this mathematical transformation “reduce[s] artifactual influences of individual differences in average response latency”. Finally, following Karpinski and Steinman’s (2006) prescriptions, children with over 20% of errors (i.e., incorrect categorizations) in one of the two test phases were excluded from analyses.
1.3. EXPLICIT PERCEPTION OF SCHOOL: EXPLICIT SCORES AND EXPLICIT VALUES

Children’s explicit perception of school was assessed by using a questionnaire and modified Likert five point scales with emoticon faces that ranged from a very sad face to a very happy face. The five emoticon faces, 3.5 cm in diameter each, were aligned on a horizontal 21×29.7 cm paper sheet. The explicit questionnaire had three questions: 1) “Most of the time, do you like or do you dislike school?”; 2) “Most of the time, when you are at school, how do you feel?”; 3) “Most of the time, when you are at home and you must leave for school, how do you feel?” I read each question to the child and explained the exact meaning of the five emoticon faces immediately before he/she responded to the question. Then, the child gave his/her response by pointing to one emoticon face. For question 1, the very sad emoticon face corresponded...
to “I absolutely dislike school”, the sad emoticon face to “I dislike school”, the neutral emoticon face to “I neither like nor dislike school”, the happy emoticon face to “I like school”, and the very happy emoticon face to “I like school very much”. For questions 2 and 3, the very sad emoticon face corresponded to “I feel very sad”, the sad emoticon face to “I feel sad”, the neutral emoticon face to “I neither feel sad nor happy”, the happy emoticon face to “I feel happy”, and the very happy emoticon face to “I feel very happy”.

**Data reduction**: Children’s responses to each question were first converted into numerical values on a five-points scale, ranging from 1 = very sad emoticon face to 5 = very happy emoticon face. Then, the Explicit Score of perception of school was computed for each child by calculating the mean score of his/her responses to the three questions. All children taken together (N = 64), the internal consistency of the three questions composing the Explicit Score was below conventional standards (Cronbach’s alpha = .48). Therefore, in addition to the Explicit Score, I also established an Explicit Value of perception of school for each child, which corresponded to the numerical value of his/her response to the first question only. The rationale for considering the first question separately is that it is a more direct and explicit assessment than the two subsequent questions on whether the children likes or dislikes school.

1.4. **PERCEPTION OF PARENTAL INVESTMENT AND PERCEPTION OF TEACHER’S ATTITUDE**

It has been shown that students’ perception of school can be influenced by their relation with their teacher and by the attitude of their parents regarding their school life. For instance, students who trust their teacher are more prone to identify with school than those who do not (Mitchell, Kensler and Tschannen-Moran, 2018), and students who perceive high supportiveness from their parents have higher school satisfaction than those with no family supportiveness (Rosenfeld, Richman and Bowen, 2000). In order to control for these two variables in the present study, I assessed children’s perception of their parents’ investment in their school career, as well as their perception of their teacher’s attitude toward them by using the following procedure.
First, I told the child that I had asked a series of questions to other same age children, pretending that the first question was: “How often do your parents tell you that school is important and that you must work hard in school?” Second, I told the child: “Some of these children told me that their parents tell them very often, every day, that school is important and they must work hard in school. Other children told me that their parents tell them only sometimes that […] And other children told me that their parents never tell them that […]” Finally, I asked the child: “At home, how is it? Your parents tell you very often, only sometimes, or never that […]?” The whole procedure was repeated with the two subsequent questions: “When you are at home after school, your parents ask you very often, only sometimes, or never how was your day in school and what did you learn?” and “How is your teacher with you? She’s very kind to you, she never scolds you for nothing, she is not so kind to you, she sometimes scolds you for nothing, or she is mean to you, she often scolds you for nothing?” The rationale of this procedure was to reduce pressure on the child by showing him/her that all the possible answers to a given question are acceptable, since other children had allegedly endorsed each of them in front of me.

**Data reduction:** Children’s responses were converted into numerical values on a three-points scale: 0 = never or mean; 0.5 = sometimes or not so kind; 1 = very often or very kind. The Perception of Parental Investment score was computed for each child by calculating the mean score of his/her responses to the two first questions. Children’s Perception of Teacher’s Attitude corresponded to the numerical value of their response to the third question.

### 2. RESULTS

Mean Explicit Scores, Explicit Values, Implicit Scores, Perception of Parental Investment, and Perception of Teacher’s Attitude, for all CE2-grade children taken together, and for children from low- and medium-SES schools taken separately, are exposed in Table 2. Nine children (28.1%) from low-SES schools (N = 32), and six (18.8%) from medium-SES schools (N = 32) were excluded from Implicit Scores analyses since they had over 20% of errors in at least one of the two test phases of the IAT (note, however, that the statistically significant
results involving Implicit Scores reported below remain significant without excluding these children from the analyses). Two additional children from low-SES schools were excluded from Implicit Scores analyses due to computer malfunctions during the presentation of the task.

Table 2. Mean Explicit Scores, Explicit Values, Implicit Scores, Perception of Parental Investment, and Perception of Teacher’s Attitude of CE2-grade children

<table>
<thead>
<tr>
<th></th>
<th>ALL CE2-GRADE CHILDREN</th>
<th>CE2-GRADE CHILDREN IN LOW-SES SCHOOLS</th>
<th>CE2-GRADE CHILDREN IN MEDIUM-SES SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicit Scores</td>
<td>( M = 4.24 )</td>
<td>( M = 4.17 )</td>
<td>( M = 4.31 )</td>
</tr>
<tr>
<td>Min. = 1; Max. = 5;</td>
<td>SD = 0.71</td>
<td>SD = 0.85</td>
<td>SD = 0.52</td>
</tr>
<tr>
<td>Neutral level = 3</td>
<td>N = 64</td>
<td>N = 32</td>
<td>N = 32</td>
</tr>
<tr>
<td>Explicit Values</td>
<td>( M = 4.34 )</td>
<td>( M = 4.25 )</td>
<td>( M = 4.44 )</td>
</tr>
<tr>
<td>Min. = 1; Max. = 5;</td>
<td>SD = 0.83</td>
<td>SD = 0.83</td>
<td>SD = 0.83</td>
</tr>
<tr>
<td>Neutral level = 3</td>
<td>N = 64</td>
<td>N = 32</td>
<td>N = 32</td>
</tr>
<tr>
<td>Implicit Scores</td>
<td>( M = 2.00 )</td>
<td>( M = 1.37 )</td>
<td>( M = 2.52 )</td>
</tr>
<tr>
<td>Neutral level = 0</td>
<td>SD = 1.75</td>
<td>SD = 2.02</td>
<td>SD = 1.29</td>
</tr>
<tr>
<td></td>
<td>N = 47</td>
<td>N = 21</td>
<td>N = 26</td>
</tr>
<tr>
<td>Perception of</td>
<td>( M = 0.80 )</td>
<td>( M = 0.85 )</td>
<td>( M = 0.75 )</td>
</tr>
<tr>
<td>Parental Investment</td>
<td>Min. = 0; Max. = 1</td>
<td>Min. = 0; Max. = 1</td>
<td>Min. = 0; Max. = 1</td>
</tr>
<tr>
<td></td>
<td>SD = 0.25</td>
<td>SD = 0.23</td>
<td>SD = 0.25</td>
</tr>
<tr>
<td></td>
<td>N = 64</td>
<td>N = 32</td>
<td>N = 32</td>
</tr>
<tr>
<td>Perception of teacher’s</td>
<td>( M = 0.88 )</td>
<td>( M = 0.84 )</td>
<td>( M = 0.91 )</td>
</tr>
<tr>
<td>Attitude</td>
<td>Min. = 0; Max. = 1</td>
<td>Min. = 0; Max. = 1</td>
<td>Min. = 0; Max. = 1</td>
</tr>
<tr>
<td></td>
<td>SD = 0.24</td>
<td>SD = 0.27</td>
<td>SD = 0.20</td>
</tr>
<tr>
<td></td>
<td>N = 64</td>
<td>N = 32</td>
<td>N = 32</td>
</tr>
</tbody>
</table>

To examine these results, first, two-tailed single sample t-tests were conducted to determine whether children’s Explicit Scores, Explicit Values, and Implicit Scores are significantly higher than neutral levels (i.e., 3 for Explicit Scores and Explicit Values, 0 for Implicit Scores). Scores and Values above neutral levels indicate a positive perception of school. All CE2-grade children taken together, as well as children from low- and medium-SES schools analyzed separately, have significantly greater Explicit Scores, Explicit Values, and Implicit Scores than neutral levels:
– All children: Explicit Scores, \(t(63) = 13.84, p < .001\); Explicit Values, \(t(63) = 12.8, p < .001\); Implicit Scores, \(t(46) = 7.76, p < .001\).

– Children in low-SES schools: Explicit Scores, \(t(31) = 7.61, p < .001\) (see Figure 2.a); Explicit Values, \(t(31) = 8.39, p < .001\) (see Figure 2.b); Implicit Scores, \(t(20) = 3.03, p = .007\) (see Figure 2.c).

– Children in medium-SES schools: Explicit Scores, \(t(31) = 14.04, p < .001\) (see Figure 2.a); Explicit Values, \(t(31) = 9.68, p < .001\) (see Figure 2.b); Implicit Scores, \(t(25) = 9.77, p < .001\) (see Figure 2.c).

Second, two-tailed unpaired t-tests were conducted to assess whether Explicit Scores, Explicit Values, Implicit Scores, Perception of Parental Investment, and Perception of Teacher’s Attitude differ between CE2-grade children from low- and medium-SES schools. Results show no significant difference regarding Explicit Scores (\(t(62) = 0.81, p = .422, d = 0.21\); see Figure 2.a), Explicit Values (\(t(62) = 0.89, p = .376, d = 0.23\); see Figure 2.b), Perception of Parental Investment (\(t(62) = 1.67, p = .103, d = 0.42\)), and Perception of Teacher’s Attitude (\(t(62) = 1.06, p = .293, d = 0.27\)). To the contrary, I found a significant difference between the Implicit Scores of CE2-grade children from low- and medium-SES schools (\(t(45) = 2.32, p = .025, d = 0.68\)). Children from medium-SES schools display a significantly more positive implicit (but not explicit) perception of school than children from low-SES schools (see Figure 2.c).

Figure 2. Comparison between Explicit Scores (2.a), Explicit Values (2.b), and Implicit Scores (2.c) of CE2-grade children from low- and medium-SES schools.

Note: Asterisks inside the columns indicate scores and values significantly above neutral level (i.e., 3 for Explicit Scores and Values, 0 for Implicit Scores). Asterisks above the columns indicate significant differences between children from low- and medium-SES schools. *\(p < .05\); **\(p < .01\); ***\(p < .001\).
Third, point-biserial correlation tests were conducted to examine the association between CE2-grade children’s gender and schools’ SES, and 1) Explicit Scores, 2) Explicit Values, and 3) Implicit Scores (all children considered together). Results exposed in Table 3 show, firstly, that children’s explicit and implicit perceptions of school are not significantly correlated with their gender. Secondly, contrary to Explicit Scores and Values, children’s Implicit Scores are positively and significantly correlated with their school’s SES ($R_{pb} = 0.33, p = .025$). Children from medium-SES schools are associated with higher Implicit Scores (i.e., more positive implicit perception of school) than children from low-SES schools (Table 3).

Table 3. Point-biserial correlations between CE2-grade children’s gender and schools’ SES, and 1. Explicit Scores, 2. Explicit Values, 3. Implicit Scores

<table>
<thead>
<tr>
<th></th>
<th>EXPLICIT SCORES</th>
<th>EXPLICIT VALUES</th>
<th>IMPLICIT SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender$^1$</td>
<td>0.22$^3$</td>
<td>0.11$^3$</td>
<td>0.14$^4$</td>
</tr>
<tr>
<td>Schools’ SES$^2$</td>
<td>0.10$^3$</td>
<td>0.11$^3$</td>
<td>0.33$^{4*}$</td>
</tr>
</tbody>
</table>

Note: $^1$ Sex: male = 0; female = 1. $^2$ Schools’ SES: low = 0; medium = 1. $^3$ N = 64. $^4$ N = 47. $^* p < .05$

Fourth, I assessed the relation between explicit and implicit measures of children’s perception of school, as well as the association between Implicit Scores and children’s perception of their parental investment in their school career, and of their teacher’s attitude. As exposed in Table 4, all CE2-grade children taken together, Pearson’s correlation analyses show no significant association between Implicit Scores and 1) Explicit Scores, 2) Explicit Values, 3) Perception of Parental Investment, and 4) Perception of Teachers’ attitude.

<table>
<thead>
<tr>
<th></th>
<th>EXPLICIT SCORES</th>
<th>EXPLICIT VALUES</th>
<th>PERCEPTION OF PARENTAL INVESTMENT</th>
<th>PERCEPTION OF TEACHER’S ATTITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implicit Scores</td>
<td>0.27 †</td>
<td>0.27 †</td>
<td>-0.19 †</td>
<td>0.24 †</td>
</tr>
</tbody>
</table>

Note: † N = 47. All NS.

To further explore these results, I performed Pearson’s correlation analyses to examine the association between Implicit Scores and Explicit Scores and Values separately for CE2-grade children from low- and medium-SES schools. Results exposed in Table 5 show that implicit and explicit measures of perception of school are positively and significantly correlated in children from medium-SES schools (Implicit Scores / Explicit Scores: R = 0.52, p = .006; Implicit Scores / Explicit Values: R = 0.56, p = .003), but not in children from low-SES schools.

Table 5. Pearson’s correlations between Implicit Scores and 1. Explicit Scores, 2. Explicit Values; CE2-grade children from low- and medium-SES schools analyzed separately

<table>
<thead>
<tr>
<th></th>
<th>EXPLICIT SCORES</th>
<th>EXPLICIT VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low-SES</td>
<td>Med.-SES</td>
</tr>
<tr>
<td>Implicit Scores</td>
<td>0.15 †</td>
<td>0.52 ‡***</td>
</tr>
</tbody>
</table>

Note: † N = 21. ‡ N = 26. ** p < .01

Finally, I analyzed whether significantly more CE2-grade children from low-SES schools display a neutral or negative explicit or implicit perception of school than children from medium-SES schools:

- 15.6% of children from low-SES schools (N = 32) and 3.1% of children from medium-SES schools (N = 32) have neutral or negative Explicit Scores (i.e., ≤ 3);
– 25% of children from low-SES schools (N = 32) and 6.3% of children from medium-SES schools (N = 32) have neutral or negative Explicit Values (i.e., ≤ 3);

– 28.6% of children from low-SES schools (N = 21) and 3.9% of children from medium-SES schools (N = 26) have neutral or negative Implicit Scores (i.e., ≤ 0).

Two-tailed Fisher’s exact probability tests show that the difference between children from low- and medium-SES schools is significant for Implicit Scores (p = .035), but not for Explicit Scores (p = .196) or Explicit Values (p = .082). A higher proportion of CE2-grade children from low- than from medium-SES schools display a neutral or negative implicit (but not explicit) perception of school.

As indicated in the Material and Method section 1.2., in order to control for an order effect of the two test phases of the IAT, I tested 20 CE1-grade children from medium-SES schools following an experimental design in which the order of the two test phases was counterbalanced between participants. Nine of the CE1-grade children performed the IAT with the two test phases displayed in the same order as for the CE2-grade children (i.e., the “School / I dislike” phase first, and the “School / I like” phase second). For the other 11 CE1-grade children, the order of the two test phases was reversed (i.e., the “School / I like” phase was presented first, and the “School / I dislike” phase second; two children in this condition were excluded from analysis: one made more than 20% of errors in one of the two test phases of the IAT, the second did not understand the task). As expected, the mean Implicit Score of children (N = 9) tested in reversing the order of the two test phases is slightly higher than the mean Implicit Score of children (N = 9) tested in the same condition as CE2-grade children (M = 2.71, SD = 1.57, and M = 2.15, SD = 0.73, respectively). However, the difference between the two experimental conditions is not statistically significant (two-tailed unpaired t-test: t(16) = 0.92, p = .372, d = 0.46).
3. DISCUSSION

The present study is, to my knowledge, the first to compare explicit and implicit school satisfactions between children attending low- and medium-SES elementary schools. As expected, I found that schools’ SES does not have a significant impact on children’s overall positive explicit perception of school. This result is coherent with previous works showing that self-reported, explicit school satisfaction is unrelated or at best modestly related to children’s SES or to the average SES of their school (Bacro et al., 2017; Baker and Maupin, 2009; Elmore and Huebner, 2010). To the contrary, using a specifically designed Implicit Association Test, I did find a significant effect of schools’ SES on children’s implicit school satisfaction. Children attending medium-SES schools display a more positive implicit perception of school than children attending low-SES schools, which is not explained by dissimilar perceptions regarding their teacher’s attitude toward them or by a difference in their experienced parental investment in their school career.

According to Bourdieu’s habitus theory (1977 [1972]; 1980), incorporated dispositions, which function as matrix of perceptions and appreciations, operate primarily at an implicit, non-conscious level. From a Bourdiesian perspective, it is therefore comprehensible that I found implicit rather than explicit differences in perception of school between children from medium- and low-SES schools. Moreover, the fact that children attending medium-SES schools are more positively disposed toward school than those attending low-SES schools corroborates Bourdieu and Passeron’s hypothesis (1964; 1970) according to which habitus of students from medium- and high-SES backgrounds are more favorable to school success than those of low-SES students. Previous studies have indeed established a link between positive perception of school and high academic performance (e.g., Bacro et al., 2017; Fenouillet et al., 2014; Suldo et al., 2006).

Examining the relation between explicit and implicit school satisfactions of the children tested in this study, I found that these two variables are positively correlated in children from medium-SES schools, but not in children from low-SES schools. A large majority of children attending low-SES schools
reported explicitly liking school, yet their implicit disposition toward school is much more contrasted and globally less positive than in their higher-SES counterparts. Therefore, it is possible that these children deceived themselves in overestimating their positive perception of school. Alternatively, it is also possible that they tried to comply with what they thought was expected of them in reporting liking school, even though their actual feelings are less positive. As underlined by Lahire (2003, p.336) about the habitus theory, “it is useful to distinguish between dispositions to act and dispositions to believe”. We can suppose that at least some of the children from low-SES schools tested in this study have incorporated the belief that they have to like school, but not the corresponding action dispositions. In any case, these children appear to display a discrepancy between what they feel about school and what they report feeling, a potentially uncomfortable situation for them.

In conclusion, the current study revealed that children’s implicit school satisfaction differs as a function of the average SES of their school. This finding may contribute to explain why socially disadvantaged students, whom are by definition overrepresented in low-SES schools, have on average poorer academic results than higher SES students. This study also highlights the interest of assessing expected differences in habitus between distinct populations by using implicit, behavioral paradigms rather than explicit questionnaires. Nevertheless, it should be noted that this study remains exploratory, since the version of the Implicit Association Test used (i.e., the SC-IAT-P) has been validated for adults (Bardin et al., 2016), but not yet for children. Moreover, to generalize our conclusions, the present study should be replicated in different countries with larger cohorts of children that also include children from high-SES schools. Finally, further researches are needed to determine whether children acquire their perception of school primarily in the familial context, or whether they develop it mainly under the influence of their school peers (a hypothesis in line with the group socialization theory; Harris, 1995; 1998; 2000; see also Cordonier, 2018). Knowing this would be important to implement efficient strategies leading children from low socioeconomic backgrounds to incorporate dispositions favoring their academic success.
A/N. I would like to thank the children who participated in this study, their parents, their teachers, and the principals of their schools. I am also grateful to Jean-Charles Houillon, who helped me to conduct this study, and to my colleagues Gérald Bronner and Jeremy Ward and to the two anonymous reviewers of the European Journal of Social Sciences for their helpful comments on the initial version of this paper. This research was funded by a postdoctoral grant from the Swiss National Science Foundation (SNSF Early Postdoc.Mobility n° P2LAP1_174723).

BIBLIOGRAPHY


LAHIRE B., 2003, “From the habitus to an individual heritage of dispositions. Towards a sociology at the level of the individual”, *Poetics*, 31-5/6, p.329-355.


