'IMAGINE YOU’RE CLEVER'

ROBERT HARTLEY
University of London

Abstract — A series of four studies was conducted to investigate the influence of role enactment on problem-solving in 6–10 yr old children from a disadvantaged background. It was hypothesized that asking the child to enact someone 'clever' (and in one instance someone 'not clever'), would modify the child's performance on the Matching Familiar Figures test as against performance under standard administrative conditions. Apart from the 6 yr old sample, the findings supported the experimental hypothesis. In addition, the speech of 7 and 8 yr old impulsive and reflective children, and children previously administered reflectivity training schemes, was analysed in terms of a classification scheme of reflectivity. No differences were found between these groups on the measures of reflectivity used in speech. The implications of these findings and this approach for disadvantaged children are discussed.

Keywords: Role enactment, disadvantaged children, reflection-impulsivity

The present study arose not from the literature as such, but from a personal experience. In order to introduce the study, it is thought appropriate to describe that experience.

As a pupil of a large comprehensive school situated in a working class area of London, I had taken and failed a large number of 'O' level examinations in the summer sitting, and was in the process of spending an additional year taking some of them again. It was an English lesson, and the task yet again was to write an essay. As I sat in front of the blank sheet of paper, trying to think of a suitable beginning, I thought of the number of essays I had written during my years at school, and what I had achieved. For some reason at that moment a vivid image of the B.B.C. television newsreader of the previous evening came to my mind. I could visualize his manner and speech quite clearly and the image just would not leave my mind. I thought to myself how would he write this essay? I then began writing the essay as he might write it. The process was slow at first, my spontaneous first inclinations seeming inappropriate for the kind of language he would use. For instance, I might start 'the man went in the room', and then hesitate thinking 'he' (the newsreader) would never say that . . . 'he' would say 'the tall man went into the room, no . . .'. Leading eventually, after much reformulation, to, 'the tall thin man, limped painfully into a dimlit room'. Each time the next sentence would be produced in my dialect, and then be translated to fit the image I had cast for this character. Soon, this character's style began to be produced quite spontaneously.

I handed the completed essay to the teacher, and on receiving it next lesson, I was surprised to find extremely good comments and an exclamation of delight at the remarkable progress that had occurred in my ability. I thought 'why hadn't they told me they wanted me to be someone else'. I proceeded to write all future essays and

Requests for reprints to: Dr. Robert Hartley, 42 Highbury Grove, London N5 2AG.

Accepted manuscript received 18 September 1985

383
written work in the style of that other person, until it gradually became my own in the school context. The experience was extremely enjoyable. No fear or anxiety was attached to the written work to which it was applied, for if I failed it was not me who was doing it. I somehow felt not personally responsible. By the same token, success was also a detached experience, for I knew I really was not this clever. This experience had a beneficial effect on my academic progress and led to my interest in the attribution of competence and the school experience of disadvantaged children. It also led me to wonder whether it was an experience peculiar to me at 16 yr of age, or whether it contained features that might be applicable to other disadvantaged school children.

Three studies have been reported that bear some similarity with the present study. Hargreaves (1977) found that 10 and 11 yr old boys and girls were able to adopt the opposite sex response style when asked to pretend to be the opposite sex during performance of the Circles Test. Boys in particular showed a remarkable ability to reverse their normal patterns of responding. Sex reversal was most apparent under Mechanical-Scientific and Domestic categories. Hudson (1968) reports the same ability in public school boys to adopt different roles in their performance on the ‘Use of Objects’ test. He asked 6th formers to complete the test as themselves, as Robert Higgins, a conscientious, dedicated engineer, and as John McMice, an uninhibited, bohemian artist. Hudson reports that role taking increased fluency all round, and although convergers were more fluent at performing as the former character, and divergers the latter, some convergers donned the mask of McMice, to ‘utter the conventional fantasies of artistic life’, producing many engenious, witty, violent and obscene responses. Anderson (1976) asked emotionally maladjusted 9–11 yr old children to act as ‘ordinary’ pupils in a classroom setting with an ‘ordinary’ teacher, and reports that the children revealed accurate impressions of the demands of such a situation.

Kagan’s (1966) Matching Familiar Figures test (MFF) was adopted as a means by which the effectiveness of ‘role enactment’ procedures could be studied. Apart from offering a demanding problem-solving task, the MFF is the criterion measure of ‘impulsivity’, a feature most often cited as characteristic of disadvantaged children. (Kagan, 1968, 1970; Hess & Shipman, 1965; 1968; Meichenbaum & Turk, 1972; Zucker & Stricker, 1968; Pawl, 1960). The Reflection–Impulsivity dimension refers to the degree to which a child pauses to evaluate the quality of his/her cognitive products or validity of solution hypothesis. Impulsivity represents the tendency to approach response uncertain tasks in a rapid, fluent, imprecise way versus an approach characterized by caution, deliberation, and concern for accuracy. Whilst there has been some theoretical speculation regarding the influence of conceptual tempo upon role taking, only one study has been performed to date, by Glenwick & Burk (1975). They reasoned that reflectives should be better suited to role-taking, with their purported greater capacity to decenter, tendency to take time to ponder alternatives, and use of private speech, which is said to act as an important mediator in role-taking. Despite these suggested advantages Glenwick & Burk (1975) report only low to moderate correlations between the conceptual tempo indices and perspective taking skills (assessed by Chandler’s test of egocentrism), for 4th grade boys with no relation for girls.

In the light of Glenwick and Burk’s suggestions regarding the appropriateness
of role-playing for reflective children, and the attribution of impulsivity to working-
class populations, it is interesting to find that role-playing has been accorded
considerable importance as a technique for use with disadvantaged people. Riessman
(1972) and Riessman & Goldfarb (1964), from their experience in youth and
community schemes, argue that role-playing is particularly effective and suitable for
working class people.

The present study closely followed aspects of Harré & Secord's (1972) proposed
methodological directions and research strategy, in developing forms of role-enactment
in which the individual is asked to imagine and enact a situation for a specific kind
of person. It would have been interesting to ask the children to enact a 'reflective'
person, but such an instruction holds obvious inadequacies with regards the familiarity
of the term with children. It was decided therefore to use the notion of 'cleverness'
to guide the children's enactment.

A short interview script was prepared in order to introduce the role enactment
procedures. This also provided the opportunity in the initial study (1) to assess a
number of features of reflectivity and the degree of awareness, that impulsive and
reflective classified children reveal in their speech. By recording these children's answers
it was possible to determine whether children who perform impulsively on Kagan's
MFF do indeed show a lesser degree of reflection and awareness than reflective
children in their speech on other issues. In accordance with this aim, a short interview
script was constructed, utilizing Barnes & Todd's (1977) characteristics of reflexivity
(ability to reflect upon one's thinking) to aid analysis.

Following the interview the child was asked to assume a role and 'act as someone
who was clever' on 2 MFF items and as an alternative comparison as 'someone who
wasn't clever' on another 2 MFF items.

STUDY 1

Method

Subjects were drawn from a primary school in a traditionally working-class district in London's East
End, between Bethnal Green and Bow. This area has the highest percentage of unskilled and semi-
skilled men among the workforce and lowest percentage of employers, managers and professional men
than any borough in London, as well as among the highest rates of unemployment. It is regarded as one
of the most deprived areas in the city. The school was considered typical of the area, reflecting the
full range of life styles, attitudes and problems confronting disadvantaged children in our schools.

Three groups of children, impulsive, reflective and children previously classified as impulsive, who
had received different reflective teaching scheme training in an earlier study termed the 'teacher scheme'
group (Hartley, 1980), were individually administered the interview and role enactment procedures
\( n = 7 \). These children had been selected from a larger sample of 7 and 8 yr old children on the basis
of the median split procedure (Kagan, 1966) following MFF performance classified into conceptual
tempo groupings. The MFF characteristics for each group are shown in Table 1.

Interview

The following questions were used as a basis for an interview in order to prepare the ground for
the introduction of the enactment requests: Q1 "What do you think your teacher thinks of you?" Q2
"Why do some children get answers right and some children get answers wrong?" Q3 "What makes
someone clever?" Q4 "Why do you think some children are not so clever?" Q5 "Who would you
say is clever in your class?" Q6 "Who would you say is not clever in your class?" The interview was
recorded on a tape recorder.

Following the child's role enactment performance on MFF items, the interview was resumed with
the questions: Q7 "How did the person you were acting as clever, know what to do?" Q8 "What about
the person you acted who wasn't clever, why didn't he/she know what to do?"
**Table 1. Pre-test MFF response latency and error characteristics for the impulsive, reflective and teaching scheme groupings**

<table>
<thead>
<tr>
<th>Group</th>
<th>Latency</th>
<th>Errors</th>
<th>Age (Yr-months)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\bar{x}$</td>
<td>S.D.</td>
<td>$\bar{x}$</td>
</tr>
<tr>
<td>Impulsive</td>
<td>7.4</td>
<td>3.2</td>
<td>16.2</td>
</tr>
<tr>
<td>Teaching scheme</td>
<td>5.6</td>
<td>1.6</td>
<td>19.7</td>
</tr>
<tr>
<td>Reflective</td>
<td>15.6</td>
<td>8.1</td>
<td>6.2</td>
</tr>
</tbody>
</table>

Note: impulsive and reflective groups each comprised of 4 boys and 3 girls. Teaching scheme group contained 3 boys and 4 girls.

Two independent judges categorised the children’s answers for each question, in terms of the following features, with the exception of Questions 5 and 6. (a) The child’s image of the teacher’s view of him/her on Question 1 judged in terms of (i) poor (ii) neutral (iii) good. (b) Degree of reflection judged in terms of (i) no reflection, no answer, tautology (ii) superficial reflection (iii) considered reflection (iv) elaborated reflection. (c) Willingness to objectify the self, on Questions 1, 7 and 8. Applying Barnes & Todd’s (1977) characteristics of reflexivity in children’s speech, their scheme for classifying utterances was followed (p. 21, pp. 61-68, 1977). Children’s utterances were judged in terms of: (d) Monitoring of own speech and thought, as indicated by self corrections. (e) Openness to possibilities, as indicated by the use of ‘could be’. (f) Awareness of strategy. (g) Awareness of more than one viewpoint or alternative. (h) Evaluating own performance.

Following the initial independent classifications, the judges met to discuss those discrepant categorizations, and if still no agreement was reached, the response was excluded from analysis. The interjudge reliability on the initial independent classification was high, $W = 0.80$, d.f. 20, $P<0.5$ (Kendall’s $W$) on ratings for each child regarding the degree of reflection, $k = 0.85$, $P<0.001$ for self-reflection (c), and $k = 0.90$, $P<0.001$ for Barnes and Todd’s classifications (d)–(h).

**Role enactment procedures**

Following this short interview, each subject was randomly presented with 2 of 4 MFF items, randomly selected from Kagan’s test, under each condition. The order of presentation of the enactment conditions was randomised for each subject. Leading from the interview, the experimenter said, (depending on order of conditions) “Right, now I want you to be an actor. You know what an actor is? Right, you are no longer sitting here . . . you are now an actor. I want you to do this task (all these children were by now familiar with the MFF), like someone who is very clever, acting like someone who is very, very clever. Do you think you can do that? Right, you are no longer sitting there, you are someone very clever. Can you think of someone very clever, maybe that person you said was clever in your class? Firstly, close your eyes and try to think how someone who is very clever would do these pictures . . . (waiting approximately 30 sec) . . . when you think you know how someone very clever would do it, then open your eyes . . . (child opens eyes). Don’t forget you are now an actor. Right . . . now acting like someone who is very clever, I want you (opening MFF test booklet) to point to the picture that is just like this picture at the top.”

The MFF test items were administered under standard procedural conditions, with the exception that no practice items were given as all the children were familiar with the form of the test. The items consist of black ink drawings of familiar objects. Each test item consists of a standard picture and 6 variants, only one of which is identical to the standard. Response latency was recorded by means of a silent electronic timer of which the children were unaware.

After the child had performed the enactment condition, the experimenter then asked the child to act again. Repeating much of the previous procedural instructions; except that the child was being asked to act as someone who isn’t very clever; the experimenter continued “Now, I want you to act like someone who isn’t very clever . . . do you think you can do that? Can you think of someone who isn’t very clever? How do you think they would do the task? Close your eyes and think how someone
who isn’t very clever would do these pictures”. When the child had reopened his/her eyes, the experimenter said “Right, now acting as someone who isn’t very clever (opening the MFF) point to the picture that is just like this picture at the top” (pointing to standard).

Following the child’s performance, the interview was resumed.

RESULTS

Interview data

The interview data was analysed by means of Fisher Yates Exact Probability Test comparing the frequencies of utterances under each category between the three groups for each question; Chi-squared test for the frequency of classified utterances for the whole interview; and Mann Whitney U test for comparisons between treatment groups on the ratings assigned to the degree of reflection, classifications 1–4.

---

The analysis revealed no differences between any of the groups on any of the measures undertaken. This supports the view that impulsive children can reflect upon their behaviour to the same degree as children classified as reflective on the MFF. In many cases, it was impulsive children who displayed the most elaborate forms of reflection, the utterances being categorized as displaying the highest frequency of ‘awareness of own strategy’, ‘awareness of more than one alternative’, and the highest mean rating of reflection over the complete interview, in addition to the ‘highest mean rating of reflection per child’, compared to the other groups. In each instance however, the superiority of the impulsive group did not reach significance.

Analysis of Barnes and Todd’s reflexive characteristics revealed very few instances of self-corrective or openness to possibility responses, and thus examination of these
categories was omitted from analysis. This finding is consistent with Barnes and Todd’s reservations, that reflective utterances are not very common in discussions, and that there is much reflective thought and self-awareness that is never put into words (Barnes & Todd, 1977, p. 68).

**Efficacy of enactment procedures**

Table 2 illustrates the effects upon response latency and errors of the two role enactment procedures presented.

<table>
<thead>
<tr>
<th></th>
<th>Clever enactment</th>
<th>Pre-test items</th>
<th>Not clever enactment</th>
<th>Pre-test items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impulsive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT $\bar{x}$</td>
<td>31.5</td>
<td>7.9</td>
<td>7.4</td>
<td>7.5</td>
</tr>
<tr>
<td>S.D.</td>
<td>18.2</td>
<td>5.6</td>
<td>5.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Error total</td>
<td>4</td>
<td>13</td>
<td>38</td>
<td>29</td>
</tr>
<tr>
<td>S.D.</td>
<td>0.5</td>
<td>1.9</td>
<td>2.7</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Teaching scheme</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT $\bar{x}$</td>
<td>44.5</td>
<td>8.5</td>
<td>13.1</td>
<td>5.5</td>
</tr>
<tr>
<td>S.D.</td>
<td>23.6</td>
<td>7.8</td>
<td>17.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Error total</td>
<td>1</td>
<td>30</td>
<td>29</td>
<td>16</td>
</tr>
<tr>
<td>S.D.</td>
<td>0.4</td>
<td>1.3</td>
<td>1.7</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Reflective</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT $\bar{x}$</td>
<td>26.9</td>
<td>15.5</td>
<td>14.1</td>
<td>18.2</td>
</tr>
<tr>
<td>S.D.</td>
<td>21.8</td>
<td>7.9</td>
<td>8.2</td>
<td>9.3</td>
</tr>
<tr>
<td>Error total</td>
<td>5</td>
<td>6</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td>S.D.</td>
<td>0.7</td>
<td>1.0</td>
<td>2.8</td>
<td>0.9</td>
</tr>
</tbody>
</table>

The effects of the ‘clever’ and ‘not clever’ role enactment conditions upon the impulsive, teaching scheme and reflective grouping were analysed by means of Split-plot ANOVA’s (Kirk, 1968). According to the analysis of the response latency data, the main treatment (type of conceptual tempo grouping) effect (A) was not significant ($F = 1.27, d.f. 2,18$), the treatment (B), (role enactment) effect was highly significant ($F = 56.94, d.f. 1,28, P<0.001$), while the A x B interaction was insignificant ($F = 0.67, d.f. 2,36$). Both the impulsive and ‘teaching scheme’ subjects demonstrated a significant change in latency performance between the two enactments (impulsives $F = 5.07, d.f. 1,18, P<0.05$, teaching scheme $F = 9.0, d.f. 1,18, P<0.01$) while reflectives showed no significant change.

Split-plot ANOVA on errors directly paralleled the latency findings, a nonsignificant main treatment (A) (conceptual tempo groupings) effect ($F = 0.77, d.f. 2,18$), a highly significant main role enactment treatment effect (B) ($F = 59.5, d.f. 1,18, P<0.001$) and an insignificant A x B interaction ($F = 0.09, d.f. 2,18$).

A possibly more appropriate means of determining whether the enactment conditions improved performance, was for each condition to be compared with performance on the initial MFF testing on those identical items administered in these enactments. This measure can be said to act as a more adequate control measure than ‘not clever’ enactment performance, in which it can be reasonably supposed that appropriate adjustment to the request encouraged children to make errors. This measure was
inappropriate for the teaching schemes group because initial MFF testing occurred prior to the influence of the educative schemes or instructional manipulation.

Table 2 shows the relatively greater difficulty impulsive subjects had on those items (pre-test MFF) used in ‘not clever’ enactment as measured in errors, compared to items used in ‘clever’ enactment, thus possibly contributing to the differences displayed on MFF enactment performance. Comparison of the change error scores on the same MFF items performed on pre-test and enactment conditions for the impulsive group between the ‘clever’ and ‘not clever’ enactments revealed a significant difference between the conditions (t = 4.87, d.f. 6, P<0.01), indicating that despite initial differences on pre-test items the enactment requests produced a significant change in accuracy performance. Comparing clever enactment accuracy performance with pre-test performance on the identical items for impulsive children showed a non-significant tendency toward greater accuracy on post-test performance (t = 1.56, d.f. 6, P<0.10). It should be noted that since the number of errors made on these items is relatively small, particularly on the enactment performance (making less errors than the reflective group), the findings may have been influenced by a ceiling effect upon errors. The same comparison on response latency revealed an increase in response latency under ‘clever’ enactment conditions (t = 3.75, d.f. 6, P<0.025). Reflective subjects showed no difference in performance under these testings, for errors or response latency, possibly indicating, like the impulsive group, the influence of a ceiling effect on accuracy.

With regard to the ‘not clever’ enactment, as predicted, both impulsive and reflective groups made significantly more errors than on the initial MFF, impulsive group (t = 2.16, d.f. 6, P<0.05) and reflective (t = 2.80, d.f. 6, P<0.025). Reflectives spent a shorter time responding under ‘not clever’ enactment, but not significantly so (t = 1.55, d.f. 6), while impulsives showed no differences on response latency.

**STUDY 2**

Following the encouraging findings of ‘clever’ role enactment and its effects upon ‘impulsive’ performance in the previous study, a series of studies, using the more demanding full form (12 item) of Matching Familiar Figures test items (compared to the 2 MFF items used in Study 1) with children of different ages, was conducted to substantiate these findings. In contrast to the previous study, no detailed analysis of the children’s protocols was performed, and impulsive children were asked only to enact the role of someone ‘clever’, with ‘normal’ responding under standard administrative conditions acting as a comparison measure, replacing the ‘not clever’ enactment.

**METHOD**

From a larger sample (n = 34, mean age, 10 yr 2 months, S.D. 3.3) of disadvantaged children administered the MFF, impulsive classified children were randomly assigned to either a control or ‘clever’ enactment condition (n = 6). From those children classified as reflective on the basis of the median-split procedure, six children were randomly selected for inclusion in a reflective comparison group. The mean response latency was 10.2 sec, S.D. 1.7 for impulsive children and 19.8 sec, S.D. 4.6 for reflectives. Mean errors scores for impulsive and reflective groupings were 9.0, S.D. 3.7 and 4.0, S.D. 1.7
respectively. The latency/error index correlation for the sample was $r = -0.34$, $P < 0.05$, which is somewhat lower than Kagan recommended. Children were individually administered a parallel MFF Form 2, comprising of 12 additional 6-variant MFF test items (provided by Zelniker), under post-test conditions. The 'clever' enactment procedure used, was identical to that used in the previous study. The impulsive control and reflective comparison groups were administered MFF Form 2 under standard testing conditions.

RESULTS

Pre-and post-test performance characteristics for the three groups are shown in Table 3.

<table>
<thead>
<tr>
<th>Table 3. Pre- and post-test MFF performance characteristics for the impulsive control, 'clever' role enactment and reflective comparison groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Response latency</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>n = 6</strong></td>
</tr>
<tr>
<td>Impulsive control</td>
</tr>
<tr>
<td>'Clever' enactment</td>
</tr>
<tr>
<td>Reflective comparison</td>
</tr>
</tbody>
</table>

Note: 'Clever' enactment and impulsive control groups each comprised of 4 boys and 2 girls. Reflective comparison group contained 3 boys and 3 girls.

A Split-plot ANOVA (reflective comparison group excluded) was performed on response latency. It revealed a non-significant main treatment effect (A) (clever enactment-control ($F = 3.67$, d.f. 1,10) a significant pre-post-treatment (B) effect ($F = 8.16$, d.f. 1,10, $P < 0.025$) and a non-significant enactment x pre-post treatment interaction effect ($F = 3.81$, d.f. 1, 10).

A Split-plot ANOVA performed on errors, revealed a non-significant main treatment effect (A), (enactment) ($F = 3.73$, d.f. 1,10), a non-significant pre-post-treatment effect (B) ($F = 0.38$, d.f. 1,10), but a significant A x B interaction ($F = 12.79$, d.f. 1,10, $P < 0.01$). The effectiveness of the 'clever' role enactment is demonstrated by a significant simple main effect between treatments on post-test MFF ($F = 12.64$, d.f. 1,20, $P < 0.01$). The control group like the reflective comparison group (who also increased latency), increased errors from pre- to post-testing ($F = 8.84$, d.f. 1,10, $P < 0.025$), suggesting that MFF Form 2 was more difficult than Kagan's test. Despite this increase in difficulty across forms, the enactment group still managed to significantly decrease errors from pre- and post-test ($t = 2.08$, d.f. 10, $P < 0.05$).

The effectiveness of the 'clever' enactment procedure upon accuracy is further demonstrated by an analysis of covariance, performed on post-test errors with pre-test scores as covariates. This analysis revealed a significant adjusted main treatment effect for errors. (B. adj. ($F = 16.5$, d.f. 1,9, $P < 0.01$).

One-way ANOVAs on post-test scores were performed to determine the effectiveness of the enactment scheme compared with reflective children's performance. The enactment group, while spending longer before responding than the control group, responded quicker than reflective subjects, but not significantly so ($t = 1.87$, d.f. 15, $P < 0.10$), in order to achieve the same degree of accuracy ($t = 0.17$, d.f. 15).
Analysis of pre- and post-treatment performance in terms of cumulative percent increase in correct items for each solution attempt, Fig. 3 reveals a marked deterioration in performance for the control group, displaying an almost 20 per cent decrease in proportion of correct items on the first attempt. The enactment group shows a reverse trend, with a 16 per cent increase in the number of first solution attempt correct responses. Examination of post-test patterning reveals the identical nature of responding that the ‘clever’ enactment procedure produced in relation to the reflective children’s performance.

![Graph showing cumulative percentage increase in correct items for each solution attempt.](image)

**Fig. 3.** Cumulative percentage increase in correct items for each solution attempt on pre-test and post-test MFF forms for each of the treatment groups.

### Study 3

**Method**

A similar study to Study 2 was conducted with 7 yr old disadvantaged children. Six match pairs of children (6 impulsive, 4 slow inaccurate and 2 fast accurate) drawn from a larger sample of the children \(N = 21\) were randomly assigned to either control or ‘clever’-enactment conditions \(n = 6\). The enactment procedure followed was identical to the previous study, with each child individually administered MFF Form 2. Elimination guessing errors were recorded by the method described by Hartley (1980) being those errors resulting from the strategy by which the child eliminates variants against experimenter feedback. In addition, verbalizations made by the children during testing were noted. Six reflective children were randomly selected for the reflective comparison group.

**Results**

Table 4 presents the pre- and post-treatment response latency and error performance characteristics for the three groups. Matched pairs t-tests (McGuigan, 1968) were performed on the difference scores across initial and post-testing, and revealed a significant difference between the ‘clever’ role enactment procedure and performance under standard testing conditions, both for response latency \(t = 3.85, \text{d.f.} 5, \ P < 0.01\) and for errors \(t = 2.68, \text{d.f.} 5, \ P < 0.025\). Comparison of these groups on post-test scores reveals similar results, both for response latency \(t = 4.5, \text{d.f.} 5, \ P < 0.005\)
TABLE 4. PRE- AND POST-TEST LATENCY AND ERROR PERFORMANCE CHARACTERISTICS FOR THE 7 YR OLD 'Clever' ENACTMENT, CONTROL AND REFLECTIVE COMPARISON GROUPS

<table>
<thead>
<tr>
<th></th>
<th>Response latency (Pre-test)</th>
<th>Errors (Pre-test)</th>
<th>Age (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\bar{x}$</td>
<td>S.D.</td>
<td>$\bar{x}$</td>
</tr>
<tr>
<td>Control</td>
<td>7.8</td>
<td>4.6</td>
<td>10.1</td>
</tr>
<tr>
<td>Enactment</td>
<td>7.1</td>
<td>4.2</td>
<td>17.2</td>
</tr>
<tr>
<td>Reflective</td>
<td>11.0</td>
<td>2.7</td>
<td>13.6</td>
</tr>
</tbody>
</table>

Note: Control group comprised of 2 boys and 4 girls, enactment group 3 boys and 3 girls, and reflective group 3 boys and 3 girls.

and for errors ($t = 3.16, d.f 5, P<0.025$). Children who role-enacted increased response latency to such an extent as to surpass the reflective comparison group, although not significantly ($t = 1.02, d.f. 15, a priori$ comparison from One-way ANOVA including R–C group). A One-way ANOVA on post-test errors further supported the effectiveness of role enactment, with no difference in accuracy compared to the reflective comparison group. The enactment group also displayed a large reduction in elimination guessing errors from pre- to post-test (44–6), equivalent to the level displayed by reflective children (4 and 3 respectively). The control group maintained the same proportion of such errors as for pre-test MFF performance with 37 and 44 respectively.

Consistent with this finding was the tendency for 4 of the 6 children in the enactment condition to overtly verbalize a reflective elimination strategy during performance, eliminating variants: "It can’t be that one, can’t be her", or identifying features that distinguished variants from the standard. The other subjects performed as efficiently as these children, but preferred to work silently. Only one of the control group subjects verbalized in this manner during post-testing. It is interesting to note that the reflective and control groups displayed a difference on post-test errors ($t = 2.28, d.f. 15, P<0.05$), but not on response latency.

There is some evidence to suggest that MFF Form 2 was more difficult for these 7 yr old children than Kagan’s MFF, as reflected in the increase in errors for the reflective comparison ($t = 2.70, d.f. 5, P<0.05$). This confirms the finding with 10 yr old children, in the previous study.

STUDY 4

Method

It was decided to test whether ‘clever’ role enactment would be effective in children as young as 6 yr of age.

From a larger sample of children ($N=28$, mean age 6 yr 4 months, S.D. 3.2) who had previously been administered Kagan’s MFF test items, eight ‘inaccurate’ classified children were presented with a set of three MFF items under normal administrative conditions, followed by three MFF items under ‘clever’ role enactment procedures. The sets of items were randomly selected from Kagan’s MFF. Presentation of the items were randomised for each subject, for each condition.

RESULTS

The performance characteristics for the experimental group, on Kagan’s MFF test, role enactment and standard testing items, are shown in Table 5.
The 6 yr old children found great difficulty in carrying out the instructions regarding the enactment of the role. Related t-tests revealed no significant differences between 'clever' role enactment and standard testing performance, for response latency ($t = 0.49$, d.f. 7) and error ($t = 0.81$, d.f. 7).

**DISCUSSION OF ROLE ENACTMENT EXPERIMENTS 1, 2, 3 AND 4**

Most surprising findings arose from this series of studies investigating the effects of role enactment upon MFF performance in disadvantaged children. These findings extend Hargeaves' and Hudson's results with regard to sex role reversal and the adoption of scientific or artistic roles on creativity measures to perspective taking on problem-solving tasks themselves. Children who had persistently displayed impulsive or inaccurate modes of responding, when asked to perform the Matching Familiar Figures Test 'acting as someone who was clever', performed in a fluent, composed, and highly efficient way, approaching the task in a reflective manner with an apparent ease. This contrasted with the more scanty, less composed and error prone nature of prior performance. While the findings clearly illustrate the dramatic effects of a change of attitude on performance, it should be borne in mind that the studies were initiated, in part, in an attempt to explore and develop an appropriate research paradigm, and consequently it is hoped that further research will extend the findings with larger samples.

Several interesting features emerged from the 'not clever' enactment procedures administered in Study 1. One might have expected the request for children to 'act as someone who was not clever' would present no difficulty for many of these children who scored high on errors during normal testing. However, this enactment request produced an unexpected effect. The groups successfully managed to make more errors on the test items than under normal administrative conditions, including the impulsive group despite its high number of pre-test errors, although the response latency was little affected. While the enactment request naturally encouraged the making of errors, protocols indicate that children appreciated the request in terms of both the nature of the responding ('Just picked out'. 'I just picked out one'. 'Just looked at one and picked it out'. 'Just a guess'.) and the appropriate outcome of that enactment ('She pointed to the one that was wrong'). In order to successfully achieve this latter...
objective, several of the children sought to find the right answer (matching variant) before they could successfully offer those variants that were different from the standard. Thus, the approach encouraging the choice of incorrect answers produced a similar strategy to that needed for successful normal responding, although under normal testing conditions these children did not utilise it. Some children who found difficulty in identifying the matching variant under normal testing had difficulty in purposely not choosing the matching variant when encouraged to choose incorrectly. This attitude to the task paradoxically required a reflective comparison strategy. The small change in response latency reflects the greater ease of the task and the predominant strategy exhibited by the children, that of identifying an initial different variant by comparison with standard, then repeating the comparison procedure for each differential variant in turn. This strategy did not require increased latency to first response, as normal match-to-standard responding might require.

How can we explain the effects of adopting such a perspective? Radley (1978) speaks directly to this issue. Adopting another’s perspective enables one to explore other ways of acting, thus in one’s imagination one can temporarily disengage from the habitual perspective one usually assumes. This allows the person the opportunity to give considered thought to what he might do (p. 191) and actively reconstruct the situation from this other perspective. This is similar to the experience of the author’s BBC newsreaders’ adopted perspective. When asked to adopt clever perspective, the child, instead of responding spontaneously to the task from a habitually assumed perspective, is encouraged to make his/her behaviour the object of his/her considerations (taking the attitude of another towards himself), so creating a distance, a detachment from what he/she is actually doing, so possibly organizing a response in terms of the question: “‘How would a clever person do the task?’ or ‘‘What would be the clever thing to do in this task?’’. The child then comes to reorient and organize his/her activity in terms of this imputed attribute, and consistent with determining what the child might do if he/she were to act clever. This contrasts with everyday circumstances, in which the child may not organise or display a response in terms of this quality at all, but respond from a characteristic perspective, in which the child may experience no choice at all. As the child has nothing to contrast with it, they may be unaware of those other aspects of behaviour and possibilities open to them.

Goodman found when impulsively classified children were asked how ‘‘they went about the (MFF) task and what advice they would offer another child who wanted to make very few errors on the MFF?’’ (cited in Meichenbaum, 1976, p. 439), they described a reflective strategy. Meichenbaum (1976) suggested that the correct strategy was within their grasp but they did not seem to spontaneously call it forth and/or comply with it. From this finding Meichenbaum & Turk (1972) suggested that working-class children may also report correct problem-solving strategies when explicitly asked, but do not spontaneously ‘emit and use such strategies when not asked to do so’ (p. 30). They suggest that such a possibility supports the ‘production deficiency’ explanation of impulsiveness in these children and assumes that a central feature of the disadvantaged child’s ‘central language deficit’ is ‘his inability to relate what he says to what he does’ (p. 32). It is more likely that in the instance cited by Meichenbaum, the questions posed encouraged the child to make the ‘behaviour necessary for correct performance, the object of their considerations’, and so led to
the appropriate answers. In this sense Goodman's request is similar in nature to the clever role-enactment request, in that it invited the child to disengage from the characteristically assumed perspective, enter into an alternative one and reconstruct the situation in his/her imagination, addressing the task 'as if' he/she were to pursue the means by which correct answers are produced. Such a possibility is supported by the findings in the initial study (1), when impulsives and reflectives were posed questions regarding performance and no differences in the degree of reflection was evident. The difference lay in the fact that in 'impulsive' responding, children act spontaneously in the course of events and not within this type of attitude as implicit in the construction of such a question. Thus unlike the explanation positing a central language deficit in the child, it may well be the question itself that encouraged the child to distance, and make the required behaviour the object of his/her considerations.

The research findings arising from the role enactment manipulation of cognitive or stylistic features upon behaviour also bear directly upon the relation of these features to the child as a person. This research highlights in particular the perspective the child takes towards problem-solving, which necessarily involves aspects of the way the child identifies him or herself. This is consistent with Hudson's view that the sense of identity exerts a controlling influence over the intellectual choices one makes, the mental abilities one is willing to reveal and what one feels one can or cannot do in particular circumstances. In this respect, several writers have referred to the existence of a multiplicity of selves (Hudson, 1970; Blumer, 1977; Hargreaves, 1977; Harré & Secord, 1976). Harré & Secord (1976), consistent with Hudson & Radley, consider it is the choice one can make between different sets of rules for action that makes the multiplicity of selves possible. Radley (1978) in emphasising this relation, suggests that the frames of reference a person repeatedly assumes 'are' his defining features and stand in his/her experience as what she/he 'is' (p. 196). In this way, it is clear that frames of reference identify oneself 'as' something and as 'not something else', and if one adopts another perspective, the person may experience actions which follow as disconfirming his/her expectations of him/herself. Therefore the perspective one frequently adopts and by which he is identified will be those alternatives with which he identifies strongly (Radley, 1978). Reflection then cannot be viewed as simply a weighting of neutral alternatives because the person is identified by the constructs in terms of which alternative actions are defined.

The importance of these points is emphasised in the response of a number of children to the role enactment requests. Three reflective children when asked to act as someone 'not-clever' failed to complete testing. They explained: 'I can't do it', 'Don't know', 'I don't know how to act like someone who wasn't very clever'. This difficulty suggests the greater unwillingness of reflective children to adopt a perspective that was unfamiliar or transgressed the type of person they conceived themselves to be. One 7 yr old reflective child replied on being asked, following difficulty he experienced in assuming such a role,

E: "Do you feel you would have done better being yourself?"
S: "You can't act better than yourself".

Another child replied upon being asked:
E: "Do you usually do better than the person you acted like or worse?"
S: "Worse"
E: "Why?"
S: "Because I'm Paul Hanworth".

The relative ease impulsive children displayed in assuming the perspectives also contrast with Glenwick & Burka's (1978) claims that reflective children are better suited to role-taking skills, being better able to take the others point of view.

A child with a low self-image and who considered her teacher regarded her as a poor pupil, disavowed her flawless performance, after adopting the role of someone who was clever when performing MFF items. She explained that "Somebody (else) was doing them, I bet when I do (them) I'll do them all wrong". When it was pointed out that the person she claimed was responsible for the performance was upstairs in the classroom, and thus could not have possibly affected her performance, she replied "I don’t know. It couldn’t have been me. Julie was doing it, I wasn’t." Hudson (1970) similarly reports that the outcomes of assuming another perspective and the resulting behaviour often came as a complete surprise to the person's involved. In addition, similar to the author’s own experience from which the research developed, the child could not acknowledge that these acts were performed by herself, although unlike a number of reflective children, she had no trouble assuming and enacting the perspective itself. Gurin & Gurin (1970) refer to this type of finding in discussing expectancy theory and poverty. They assert that because of a person’s motivation for self-consistency, a person who holds low expectations of success will prefer to "undo" such experiences rather than change his/her expectations to correspond with the disconfirming feedback (p. 87). In addition, they may distort the feedback to avoid its dissonance implications. These motivational and identity factors may hold important implications for approaches aimed at overcoming the educational problems of the disadvantaged. Many of the children tested came from a culture very different from the orientation of the school, receiving remedial education, being defined as poor readers, and in several cases recognising the teacher’s low opinion of themselves. It is important to recognize the effects of these primary influences upon the perspectives these children adopt in academic problem-solving situations, the abilities they display, and the likely implications for their identity.

Several writers have rightly referred to the serious implications for a minority group or disadvantaged child’s identity posed by attempts to impose alien styles upon them (John, 1971; Searle, 1972). Such issues raise important questions regarding the use of role enactment procedures with children. Research attempting to encourage reflection, however, may have tended to confuse different forms of reflection with the power of reflection itself. It has been argued elsewhere that features inherent in such tasks and situations may actively encourage unreflective 'impulsive' behaviour (Hartley, 1980) and inhibit the child’s power of reflection by denying other forms of reflection (Barnes, 1977; Hartley, 1980). In support, the role enactment and reflexive analysis of childrens speech in the present study suggest that 'impulsive' children are capable of reflecting upon problems and issues that concern them. As the power of reflection is a quality identified as specific to human beings since the end of the Quarternary (Chardin, 1973, 1974), explanations seeking to deny its presence in the large scale it has been assigned should be seriously questioned.

What the effects of role enactment procedures upon 'impulsive' problem-solving may raise, with regard to children from disadvantaged backgrounds, is the wider issue
of the problems faced by such children in a school system reflecting the orientation of a predominantly different culture. The problems of adapting to different sets of rules, meanings and definitions imposed upon their behaviour (which in many situations the child may be unaware) within the asymmetrical power relations of schools (Hargreaves, 1975), may lead to the definitions and qualities being attributed under these conditions becoming adopted. This may influence the perspectives children adopt, the way they come to view themselves and the alternatives to which they may hope to attain and create. It is tempting to speculate, in the light of Goffman’s example of how people fit the ‘the intelligent status role’, that a person’s appropriate adjustment to the demands of the role may help induce the necessary organisation of the appropriate cognitive skills to maintain their role and identity. Is this not a similar process to that in operation with the demands of the roles and identity ascribed to many disadvantaged people? If this is the case, then surely the definitions of intelligence which people assume and come to judge in themselves have a distinctive cultural and social basis and construction, highlighting the importance of the attributions of competence upon children by the institutions through which they pass and the perspectives and ‘identities’ children assume in these settings. The problem may be that many disadvantaged children are led to equate ‘intelligent’ or ‘clever’ behaviour with a middle-class content and style in which ideas are expressed, which represents a realm of experience considered to be superior and apart from their common experience. Such a situation may lead many children to be attributed the quality of incompetence which they genuinely come to believe themselves to be, so denying them the experience of worth and confidence in themselves and their intellectual abilities.

Acknowledgements—The author wishes to acknowledge the invaluable help given by Dr. P. Salmon, Mr. C. Owen, Dr. M. Eccles and Mr. D. Balfour in the preparation of this article, and Miss I. Gadd, the staff and children at the school in which the research was conducted.

REFERENCES


This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.