A Reflection of the Future Self: Planning in 3-Year-Olds
reduced. For example, some authors (see Tulving, 1985, Tulving et al., 1982, 1986, and O’Neill, 1983) have reported on differences between knowledge based versus knowledge based errors. These differences are also similar to those observed in children’s memory for verbal information. For example, the children in O’Neill and others (1982) were able to recall more information from a story than from a picture. This may be due to the fact that the children were able to form a verbal representation of the story, which was easier to recall. In contrast, the children in Tulving et al. (1982) were not able to form a verbal representation of the picture, which made it more difficult for them to recall. These findings suggest that children may have a different ability to process verbal and visual information.
of the present day.

events that had occurred, or would occur, at some time beyond the scope
more spurious references to the past and the future, which included
involving the self, between 37 and 39 months of age, Naomin began to make
be aware not only of the future but also of future events that would
These influences suggest that even at this young age, Naomin seemed to

My mom will get up pretty soon.

We go to bed pretty soon.

Morning

I gotta feel better in the morning, when we have dinner in the

go out on a little date.

(All eating) We'll have breakfast together.

Morning's away. Coming back again.

Influence (Sachs, 1982, p. 15). Of the approximately 29 months of Naomin produced the following
at the beginning of these future events. For example, if
which made Naomin seem to be particularly
later in the day. Sachs noted that their scores seemed to be particularly
her physician child, Naomin, when Naomin was 17-36 months of age.
1982) looked at the development of displaced reference in
York's 2 years of age began to take about both the past and the future
If we now shift our focus to another child's data, we find that child was
simply have been more dependable, for example. For example, obtaining one sticker immediately may
immediately may trigger the following: For example, obtaining one sticker immediately may
whether the ability may have been compounded with the ability to delay
when they were truly incapable of planning hypotheticals in the future, or
that is unclear whether the 2-year-old children in this
desert's (p. 207). Yet it is unclear whether the 2-year-old children in this
research to imagine future deserts which conflicted with their current
Naomin of the introduction of a situation in which they were
immediate one. Thompson and other investigators also suggested that the 2-year-olds were
of Naomin were given the option of obtaining one sticker immediately or
they experienced conditional delayed choice of self-rememberation. For example in one of
children between 3 and 3 years of age begin to take about both the past and the future
Alcohol, 1986). Thompson, Brian, and Moore (1986) examined how
conditional delayed choice of self-referential Rememberation. So, for example, in one of
children
examine the origins of future orientation in children between the ages of 3 and 5 years. Nelson (1987) and Nelson (1989) developed a parent-report questionnaire, which was described by Long (1994), to specifically capture this understanding of the future. But the origins of the future, the origins of the future.

Finally, there is one area of previous research that comes closest to

occurred with our children. In a substantial amount of talk about the

years of age children engage in a substantial amount of talk about the

future. And finally, a recent, more, Nelson et al. (1991) also documented, among a larger

sample of 60 children, that temporally displaced speech about the

future, occurred. Will solved.

has begun to develop a fine concern for how an event that has not yet

happened. For example, in taking into account how the future

in the previous narrative, the family incorporated details told to them by

in the ocean... (Nelson, 1989, p. 66)

and then sharks go in the river and bite me,

and then we could go in,

and then the bridge go in, the bridge (would) be in the water over by a shore,

this dog, will be in a bridge,

and maybe it's in,

and down the river,

and across the ocean,

nearer, it's down, downtown,

couple blocks... away.

I think it's...

far away...

baw, baw, baw (etc)

Ocean is a little far away.

at the ocean...

We are gonna...

was 29 months of age.

For example, the following narrative was constructed by family when she

Emily's monologues include talk about both the past and the future.

displaced speech by a 2-year-old child, family, and similarly found that

Katharine Nelson (1989) also documented the use of temporally
In an initial study (Peerson, 1994), this guesstimatable was given to 68 children's performers by age 2.5 years. The problem-solving abilities of children within their own age group were assessed in two ways. The first was a ‘guesstimatable’ question, where children were asked to estimate the number of items in a set. The second was a ‘proportion’ question, where children were asked to estimate the number of items in a set.

The development of future-oriented processes (Green, 1994, p. 286) opened his eyes. In this vision, he could go to the zoo when he was five years old, and he could travel anywhere. He thought it was worth taking the risk. He closed his eyes, and the vision faded. He opened them again, and the vision returned. He was ready to face the future.

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future is based on projections of growth or induction from past events has also
involving verbs that have never occurred before (conceptualization, the
(d) imagination and invention (e) forming expectations about events on the basis of the
observation (f) induction from unattended change (g) the ability to form an expectation
of what will happen next in a set of reading errors (h) the production of
constructional gestures (i) the ability to form an expectation

The authors argued that children's poor performance in these tasks was
due to their failure to understand the problem-solving strategies that were involved in
these tasks. The results of the study indicated that children of 12 months of age had
successfully solved the problem-solving tasks, while children of 36 months of age had
not. The authors suggested that this difference was due to the fact that 12-month-old
children were able to form a cognitive representation of the problem, while 36-month-old
children were not.
independent from the process required to recount a personal event or to
N. N. is thereby able to recount a script in a very important way
personal instance. (1) It is clear from Tulving's characterization of N.'s
characterization this inability as reflecting a lack of automatic consciousness.
that Tulving is not only unable to recount a personal past through the present to the
personality's awareness of this, or her existence and identity in subjective
the kind of consciousness that mediates in
the nature of this relation is highly important, which is evidenced by his complete
inability to recount what she did yesterday or what she will do
the distinction between knowledge and remembered past events.
the script--he is able to recount a script--for example, a "restaurant" script--the
ano...
null
Independent from the process required to recount a personal event or to
recall past events, but it is similar in that it is impossible to depict any future
ones. When questioned about what he will do at the next day, he is unable to respond
and recall past events of having done a restaurant. N.J. is not only unable to
recall past events of having done a restaurant but is also unable to
remember a script—for example, a restaurant script—he is able to
recall the restaurant name. He has forgotten that it is his restaurant. If N.J.
is more interesting for the sake of our argument, the following applies:
"A hovered, what is beyond answering, with what is no longer the
subject of debate, what is knowledge of an another. It is striking, however, that his knowledge of
the distinction between "knowing" and "remembering" past events,
the distinction between "remembering" and "knowing" past events,
that is being taken down involves the self, but rather, where the self does
not even include me. Where the self is nothing but different processes depending on whether the self is
future may rely on different processes depending on whether the self is
implicated one to draw, and we hypothesize that thinking about the
problems of change between processes that involve the self is a lesser or greater
within these categorizations of future thoughts there is no distinction
towards the future. 

(13) Usually based on a large extent on our generalizations from the past,
The failure of young children to acquire early planning in a manner that can be seen crucial to any evaluation of planning involves thinking into the future in order to create a goal-directed action sequence. Thus, it would not be surprising to find that evidence for young children's planning is often difficult to obtain unless planning is explicitly required by the task. Evidence for this conclusion comes from the finding that even when children are asked to plan their actions, they fail to do so. For example, in one study, children were asked to plan an action sequence in order to reach a goal (e.g., to get a toy). The children were then asked to explain how they would get the toy. The children's explanations were compared to the actual sequence of actions that they took. The results showed that the children's explanations were often inconsistent with their actual actions.

The failure of young children to acquire early planning in a manner that can be seen crucial to any evaluation of planning involves thinking into the future in order to create a goal-directed action sequence. Thus, it would not be surprising to find that evidence for young children's planning is often difficult to obtain unless planning is explicitly required by the task. Evidence for this conclusion comes from the finding that even when children are asked to plan their actions, they fail to do so. For example, in one study, children were asked to plan an action sequence in order to reach a goal (e.g., to get a toy). The children were then asked to explain how they would get the toy. The children's explanations were compared to the actual sequence of actions that they took. The results showed that the children's explanations were often inconsistent with their actual actions.
future self is to design planning tasks that minimize script-based
script-based information.

When assessing the development of the script-based information, it is important to consider the role of reflective responses in children's planning. A study by Hudson et al. (1999) found that children who were able to plan for future events were also able to reflect on the outcomes of their plans.

However, it is not always clear how much children are able to plan for future events. A study by Hudson et al. (1999) found that children who were able to plan for future events were also able to reflect on the outcomes of their plans.

In conclusion, the development of script-based information is an important aspect of children's planning. Further research is needed to understand how children acquire these skills and how they can be supported in doing so.
A R T A N C E  A N D  O N E I L L

190

in answer, Elmo provides the following reply: "There's a good idea! Can you
immediately after children have provided
me you're gonna...". The young first-grade children
Can you show him how? Thus, for each task Elmo
first-grade children. He could provide
first need to tell Elmo how to play the game and only after
show him how? Thus, for each task Elmo
instructed in playing these games: Children were told they
imagine to achieve the goal. At the beginning of the session, an
action that would achieve the goal. At the beginning of the lesson, an
sufficient

Nellie (2001). Each one-step planning task required children to execute
planning, children were given 6 one-step planning
tasks, as well as 2 two-step tasks that were discussed here (see
range of a young 3-year-olds (range 3'6" to 3'7"
and 12 older 3-year-olds
younger 3-year-olds (range 3'6" to 3'7"

Thirty-six 3-year-old children participated in this study. Eighteen

sufficient
answer: "I'm gonna use the ball.

children know how they were going to get the frog in the bucket (possible
next step? a ball), and one that was less useful in elastic and, and children
were provided with two tools, one that was more

this point, children were provided with two tools, one that was more

useful, a stick, and one that was less useful, an elastic band, and children

should get the frog into the bucket without using their hands. At the

point, children were told that the frog could be

the experiment showed the children how the frog could be

shown children how the bunny could be moved into the house by using

which were both placed on the table in front of them. The experiment

bunny: Children were shown a small plush bunny, and a bunny house.

Category 2: Action with Tool

they were going to do this (possible answer: "I'm gonna use my feet.

children know how they were going to get the frog in the bucket (possible

but then they could not use their hands. Elmo then asked children how

were then told that they should get the ball into the bucket

were then told that they should get the ball into the bucket

the ball could be placed in the bucket by using her hand. The children

placed on the floor by their feet. The experiment demonstrated how

bottle: Children were shown a bottle and a next ball, which were both

solution: Before children were given the option of showing Elmo a

necessary, before children were given the option of showing Elmo a

In each task, this question was repeated twice if

use my head.

I'm gonna use the ball.

children know how they were going to do this (possible answer: "I'm gonna

tried to ask children if they wanted me? By asking children to tell Elmo beforehand we hoped to

You show me? By asking children to tell Elmo beforehand we hoped to

THE FUTURE SELF

131
Children’s performance on the eight planning tasks was coded along a number dimension, and along a success dimension. For the Planning a Number Dimension, children received a score of 1 if they stated a means to the goal before engaging in any goal-directed action. In addition, children’s goal before engaging in any goal-directed action also had to include information about how to achieve the goal (a see-exercise provided in task descriptions) as opposed to a simple information about the goal. Early Language Development-2 (ELD-2), Heskia, Reid, & Hamill’s (1991) to obtain a measure of their language ability.

Thus, in all of these tasks children were asked to provide a verbal possible answer: "I’m gonna squash it.") Ball: Children were shown a small rubber ball, and then Elmo asked them how they were going to find out if the ball was squishy or hard: "I’m gonna put my finger in.") answer: "I’m gonna dump it out.") Water: Children were shown a bowl of water, and then Elmo asked them how they were going to find out if the water was cold or warm (possible answer: "I’m gonna dump it out.") Going to retrieve the sticker (possible answer: "I’m gonna dump it out.") The experimenter proceeded to drop a sticker in the复兴前, children engaged in the task. Elmo then asked children how they were going to find out if the sticker was there. The experimenter placed the sticker in front of them, then picked up the label on the table in front of them, and then placed upright on the label in front of them. There was a long, narrow, hide closed on one end and open on the other was box. Three boxes—red, blue, and yellow—were placed on the label in front of children.
In Table 7.2, older 3-year-olds did not reach a planning criterion of 50% in any given task. The percentage of older 3-year-olds providing a plan on any given task is shown for younger and older children who planned across the eight tasks. The percentage of younger children in the 3-year-old age range, who were required to plan, was determined whether these tasks were appropriate for their age, ability, or gender to provide a plan. The first dimension we analyzed was children's ability to provide a plan dimension.

TABLE 7.2

The blocks dimension was analyzed and a score of 0 on the planning dimension and a score of 1 on the action dimension, and a score of 0 of 1 on the planning dimension and a score of 0 on the planning dimension of 0 when they received a score of 0. Thus, it was possible to obtain a score of 0 when they received a score of 0 if children were able to achieve the goal (e.g., place the ball into the bucket without using their hands) and were able to achieve the goal separately from their ability to provide a plan. For the success dimension, children were given a score of 1 if they were able to achieve the goal above a score of 0 was also given. Above, the number in parentheses are children's ages.

Note: Numbers in parentheses are children's ages.

<table>
<thead>
<tr>
<th>Task</th>
<th>Plan</th>
<th>Sample Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball</td>
<td>Wy. Wr.</td>
<td>Did not care</td>
</tr>
<tr>
<td>Water</td>
<td>D. U. (2')</td>
<td>Liked it</td>
</tr>
<tr>
<td>Ruble</td>
<td>L. M. Go. (2')</td>
<td>Liked it</td>
</tr>
<tr>
<td>Box</td>
<td>L. M. Open (2')</td>
<td>Liked it</td>
</tr>
<tr>
<td>Bucket</td>
<td>L. M. Read (2')</td>
<td>Liked it</td>
</tr>
<tr>
<td>Bell</td>
<td>L. M. Read (2')</td>
<td>Liked it</td>
</tr>
</tbody>
</table>
This indicates that children's ability to plan was related to their performance on the TELD-2 task, as plans were significantly correlated with children's scores on the TELD-2 task. In addition, there were significant correlations between children's planning ability and their performance on the planning task. To examine if a relation existed between the older child's planning ability and the younger child's performance on the TELD-2 task, the data for the younger and older children were combined. The results showed a positive correlation between the older and younger children's planning abilities.

In terms of language ability, older 3-year-olds performed significantly more difficultly achieving the goal than did the younger children. This is evidenced through the fact that in some of the tasks, the younger children were the first to reach the goal. However, this can be attributed to the fact that more important planning abilities were shown. Thus, it appears that children's planning abilities are showing up at an earlier age, although this claim is based on the results of this study. It is important to note that the results of this study may not be generalizable to children of different ages or environments.

The age by task interaction revealed significant main effects of age, F(1, 34) = 12.44, p < .001, and task, F(1, 34) = 7.27, p = .022. The age by task interaction is significant by task interaction, F(1, 34) = 12.44, p < .001. The plans by task interaction revealed a main effect of age, F(1, 34) = 14.56, p < .001. Table 7.3 shows the percentage of successful planning of younger and older children who succeeded in any of the tasks.

<table>
<thead>
<tr>
<th>Age</th>
<th>Oldier</th>
<th>Younger</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>001</td>
<td>100</td>
</tr>
<tr>
<td>90</td>
<td>68</td>
<td>78</td>
</tr>
<tr>
<td>001</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>90</td>
<td>001</td>
<td>95</td>
</tr>
</tbody>
</table>

Table 7.3: Percentage of Younger and Older Children Who Succeeded.
our tasks, these children may have been able to exhibit their knowledge were able to achieve the goal and to provide a plan. In the context of we would expect this probability to be 1. Why, then, were children who were able to achieve the goal all that was required to provide a plan? Then we were able to achieve the goal all that was required to provide a plan. Across tasks, the probability that a child had provided a plan given that he or she had succeeded, was .74. Were finding children to provide a plan in these tasks, the probability that a child had succeeded was .76. Thus, it is clear that planning cannot be viewed as the cause of a child's success, because children succeeded across all tasks that a child succeeded across all tasks. Given that he or she had not taken place when they had not provided one. Likewise, it was not the case that some overt actions occurred. The probability that some overt actions would occur given that these children attempted to achieve their goals, was .70. We compared planning and success scores across the six tasks, and conclude that some of the variance was accounted for by planning. The planning interacted with the results indicated that both younger and older 3-year-olds were more likely to successfully achieve the goal than they were to provide a plan to achieve the goal. The correlation coefficient was significant, r(6) = .69, p < .05.

### Table 7.4

<table>
<thead>
<tr>
<th>Task</th>
<th>TELD-2 and Planning Scores Correlating for Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>.32</td>
</tr>
<tr>
<td>43</td>
<td>.34</td>
</tr>
<tr>
<td>44</td>
<td>.36</td>
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<tr>
<td>35</td>
<td>.38</td>
</tr>
<tr>
<td>15</td>
<td>.40</td>
</tr>
<tr>
<td>30</td>
<td>.41</td>
</tr>
</tbody>
</table>

Note. TELD-2 = Test of Early Language Development-2.
This sense that one can consider the intention as divided, or dissociated, from the ensuing action, lies in the fact that it is objects and activities that are known and conceived in terms of separate, distinct, and independent states or processes. This is the type of dissociation referred to in the previous example, where the child was able to plan and execute a strategy in the absence of the intended object. The child was able to do this because the intention and the action were separate and distinct. However, this ability to dissociate intention from action is not always present. Even in cases where the child is aware of the intended object, the intention may not be sufficient to guide the action. For example, if the child is told to pick up an object, but the object is not within reach, the child may not be able to retrieve it despite knowing what to do. In such cases, the intention must be accompanied by a plan or strategy to execute the action.}

To answer this question, it is important to consider the processes that lead to the intentional dissociation. One possible explanation is that the child has not yet developed the ability to plan and execute a strategy in the absence of the intended object. Another possibility is that the child is not able to distinguish between the intention and the action, and therefore is unable to plan the action in advance. In either case, the ability to dissociate intention from action is an important factor in the child's development. By successfully acting to obtain the goal, the child is able to test and refine their ability to dissociate intention from action.
Before providing help, planning, and intervention actions for children, teachers may have to provide interventions to children in the form of a plan. This plan may include strategies to help children understand, organize, and use information to learn in an effective way. It is important that teachers have a clear understanding of the children's needs and abilities to develop effective plans. Teachers may need to consult with other professionals, such as psychologists or speech therapists, to ensure that their plans are appropriate and effective.
we are currently directing our focus successfully to children's notion of the future self, and these are where earlier, there appear to exist several other promising methods that may appear to be able to reach this understanding. However, as we outlined earlier, there appear to be one-stop planning takes of the kind we needed do not of the future self, one-stop planning lacks a conclusion. Although 3-year-old children may indeed have achieved some progress in the future self, this is not of the type of the window to reveal children's understanding of the notion of the future, and of the plan. As the sentence proceeds, prove too difficult for this age group, whereas at the other end, a nice, comprehensive, rich, interesting, inviting, imaginative, and individual idea (6611) (see Kent, Findlay, 1961) look into the future—on ability that N.R., of course, does not possess.

In the earlier, the future is what you make of it, and what you make of it is what you make of it. This would require him to understand how it is the plan of the planner of the plan's, that we believe the planner to be given a task, then we believe margin say, "Jump it out!" or, "I'm gonna dump it out!". On the other hand, if N.R., does not see the solution to a given task, then he would believe margin say, "Jump it out!" or, "I'm gonna dump it out!", the other planner would provide solutions, automatically. In doing so, we would not expect that N.R. would use truly-structured learning such as 80% but rather would provide solutions, automatically. If N.R., does not see the solution to a given task, then it would be possible for is able to see the solution to a given task, then it would be possible for him to provide this plan voluntarily, as this process can be achieved.

In the earlier, the future is what you make of it, and what you make of it is what you make of it. This would require him to understand how it is the plan of the planner of the plan's, that we believe the planner to be given a task, then we believe margin say, "Jump it out!" or, "I'm gonna dump it out!", the other planner would provide solutions, automatically. In doing so, we would not expect that N.R. would use truly-structured learning such as 80% but rather would provide solutions, automatically. If N.R., does not see the solution to a given task, then it would be possible for him to provide this plan voluntarily, as this process can be achieved.

Another context in which children may find it easier to disagree representation of I. in a manner that precedes, for example, simply
emergence of skill in planning. In 5.1, Friedman & E. K. Schonfield (eds.),
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this research at
thank the parents and the children who participated in this research at

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C. (1999). The origins of future orientation in the everyday lives of 9-10

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and potential possibilities.

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Ontario, Canada.

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