The Efficacy of Reflection in Narrative Production: Can a Reflective Session Facilitate the Use of Mental State Talk in Narrating a Story?
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Can a Reflective Session Facilitate the Use of Mental State Talk in Narrating a Story?

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Abstract: The efficacy of reflection in narrative production was examined. The evaluative strategies used by female university students (N=52) in the production of a narrative were assessed before and after a reflective session. In the reflection session, the participants were asked to compare and contrast their evaluative strategies used in narrative with the developmental data drawn from a previous study. The frequency of evaluative strategies increased significantly after the reflective session. The largest increase was in the frequency of use of frames of mind in which the narrator refers to the mental states of the protagonists. The students’ use of strategies, such as: frames of mind and causal connectors were correlated, suggesting that personal style may be relatively stable over time. The implications of introducing a reflection session are discussed.

Keywords: reflection, narratives, evaluative strategy, mental state references, Japanese language

Reflective practices
A notion of a “reflective practitioner” was proposed by Schon (1983) and has been widely recognized in education and social care services (Kinsella, 2010). This trend is also occurring in the Japanese education system. The term “reflective practitioner” has been introduced in textbooks for childcare training courses, for example. This would suggest that students in education courses are expected to be aware of this concept. However, knowing this concept does not guarantee its use in practice. Teaching students how to become a “reflective practitioner” is a key question for training institutions in education. To address this problem, it might be important for learners to experience “reflective processes”. Schöon maintains that a reflection practice, in which one’s own behaviours are assessed critically by oneself, includes reflection-in-action and reflection-on-action. Reflection-in-action is reflecting about yourself or your behaviours during on-going practices, whereas reflection-on-action is reflection after your action.

In this study, the term reflection refers to the latter meaning. The present study aims to examine the efficacy of reflection-on-action, thereby introducing deliberate reflective experiences in students’ learning.

Linguistic strategies in narratives
To evaluate ‘reflection’ on narratives, we investigated evaluative strategies, which are linguistic functions that narrators use in producing narratives. The evaluative function is one of the components of a narrative (Labov & Waletzky, 1967), and goes beyond the referential function in which events are described, and reflects the story teller’s interpretations of the consequence of events or inferences about a particular mental state (Bamberg & Damrad-Frye, 1991). The ability to use evaluative functions has been reported to vary both developmentally and culturally (Kuntay & Nakamura, 2004). Given that the use of evaluative strategies relates in part to the development of metacognition (Flavell, 1979), it is possible that evaluative
strategies used in narratives may change if one’s metacognitive thinking is stimulated during a reflective practice.

Although little attention was given to the individual differences in evaluative devices for adults, there is tentative evidence for group differences in evaluative strategy use between female university students studying different disciplines and also between students and young mothers (Tsuji, 2013; Tsuji & Toi, 2011). It is worth noting that both mothers and students studying early years education tended to use more sound symbolic words such as onomatopoeia and mimetic, and less mental state references compared to female university students in other disciplines.

In the early development of social understanding, mental state references that children hear in conversations with adults are known to be important (Dunn, Brown, & Beardsall, 1991; Ensor, Devine, Marks, & Hughes, 2014). Thus, investigating the evaluative aspect of narratives used by people who interact with young children could extend our understanding of individual differences. If a reflective practice makes a difference in evaluative strategies used in narrative production, then this process could also contribute to a training programme for parents and early years teachers.

The present investigation involves two analyses to address the efficacy of a reflective practice in narrative production. The first is a comparison of the frequency of evaluative strategy use between Time 1 and Time 2, with an intermission that included a reflective session. The second examines the relationships between the use of these strategies both within and between Time 1 and Time 2.

Method
Participants.
52 female university students (M_{age} = 19.1, SD_{age} = .39) who were enrolled on an early years education course participated in this study and were awarded a course credit for their participation.

Procedure.
Narrative production at Time 1
In an induction session for their course, the participants were asked to view 24 scenes depicted in a picture book *Frog, where are you*. After viewing these scenes, they were asked to narrate a story based on these pictures as if they were telling the story to preschool children. Their narratives were then written up.

Reflection session for their narratives.
In a following session, they were instructed to examine their narratives with reference to a previous cross-linguistic developmental study on narrative strategies (Kijntay & Nakamura, 2004). The developmental data comprises of mean frequency of strategy use for children aged 4, 5, 7, and 9 years old and for adult Japanese-speakers. The students were asked to check if any of the 7 categories were used in their own narratives and their frequency of strategy use was also computed. They were then asked to write about how their narrative strategy differed from the developmental data provided in the previous study. Also, they were asked to consider how they would be able to improve their narratives. Their reflective thoughts were recorded in a written form.

Narrative production at Time 2
In the final session of the course, which occurred approximately 14 weeks after the induction, the students were asked to narrate the same picture book story. They received a copy of their previous narratives and their reflective sheet, which was completed after the first narrative session. No instructions were given on how to use the reflection sheet. At the end of this narrative production, the students were asked to comment on their narrative in response to the question ‘what did you consider when you produced this narrative?’

Data analyses.
The narratives were coded for the following categories based on Kijntay and Nakamura (2004): 1) Frames of mind, which included expressions of the mental states of the characters; Hedges: linguistic devises used to signify a narrators epistemological state on the true value of the proposition expressed; Character speech: direct statements made in a speech-like form on behalf of a character;
**Causal Connector**: use of a certain sentence structures to inform a causal framework between the events in a narrative; and **Onomatopoeia**: a sound symbolic device to indicate the vividness of sound or movement. Full descriptions of each category can be found in (Küntay & Nakamura, 2004).

Two independent coders coded all the narrative data. Inter-rater agreements were assessed to compute reliability. Cohen's kappa reached .91 for the Time 1 and .95 for Time 2 narratives. All discrepancies were resolved by discussion.

**Results**

Descriptive statistics for the frequency of strategy use in narratives for Time 1 and Time 2 are summarised in Table 1.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Time 1</th>
<th>Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Frames of mind</td>
<td>4.38</td>
<td>2.62</td>
</tr>
<tr>
<td>Hedges</td>
<td>1.21</td>
<td>1.63</td>
</tr>
<tr>
<td>Causal connectors</td>
<td>1.10</td>
<td>1.38</td>
</tr>
<tr>
<td>Character speech</td>
<td>13.38</td>
<td>11.35</td>
</tr>
<tr>
<td>Onomatopoeia</td>
<td>2.75</td>
<td>3.25</td>
</tr>
</tbody>
</table>

**Comparisons for the frequency of strategy use between Time 1 and Time 2**

The narratives were produced on two separate occasions, with a self-reflective analyses preceding the second narrative. They were compared in two ways. One method used direct comparisons between Time 1 and Time 2 for the frequency of strategy use to examine the changes before and after the reflection session; and the second method used correlational analyses to examine the stability of personal trends in the frequency of strategy use as well as inter-category relationships. Due to the deviation from a normal distribution for some frequency data, additional non-parametric tests were performed. If the results were the same, then the parametric tests were reported; otherwise the results of non-parametric tests were reported.

The frequency of strategy use was compared between Time 1 and Time 2. All strategies increased significantly from Time 1 to Time 2: $t(51)=10.7$, $p<.001$, $d=1.48$, for *Frames of mind*; $t(51)=5.79$, $p<.001$, $d=.80$ for *Hedges*, $t(51)=3.09$, $p<.001$, $d=.54$ for *Causal connectors*, $t(51)=4.02$, $p<.001$, $d=.55$ for *Character speech*, $t(51)=2.26$, $p=.28$, $d=.31$ for *Onomatopoeia* (Figure 1). The frequency for all strategies used changed over time.

**Correlational analyses between and within the narratives.**

A correlational analyses between strategy use at Time 1 and Time 2 were performed. Table 2 summarises the spearman correlation coefficients. As for the stability within the strategy use, a significant correlation between Time 1 and Time 2 was found for the use of *Onomatopoeia*, suggesting that the students who used more onomatopoeia in the Time 1 narrative also tended to use

![Figure 1. The frequency of strategy use compared between Time 1 and Time 2.](image-url)
more onomatopoeia at Time 2. On the other hand, other categories did not show stability. This would suggest that with the exception of onomatopoeia, the students’ narrative strategies changed over time.

There were a few significant correlations between the different strategies for Time 1 narrative and Time 2 narratives. For Time 1, Frames of mind correlated positively with Hedges and Causal connectors, whereas Character speech correlated positively with Hedges and Onomatopoeia. For Time 2, Frames of mind correlated positively with Causal connectors but Hedges was only approaching a significant level. Character speech correlated positively with Onomatopoeia but not with Hedges. In addition, Onomatopoeia correlated negatively with Causal connectors.

Correlation between strategies across Time 1 and Time 2 indicated that Frames of mind and Causal connectors at Time 1 correlated negatively with Character speech at Time 2.

**Students’ evaluation for Time 2 narratives**

41 students out of 52 (79%) provided comments on their narrative at the end of the session for Time 2. A few students mentioned more than two strategies. The most mentioned strategies were Frames of mind and Character speech: 25 students commented on their awareness of Frames of mind; 18 students commented on Character speech in which 13 students mentioned their intention to increase their use whereas 5 mentioned their intention to decrease the use of the same strategy. Four students commented on Onomatopoeia. The least mentioned strategies were Hedges and Causal connectors, which were only mentioned by one student, for each strategy. In addition they made comments such as: “trying to take a third person’s perspective”, “tried not to be very childish”, “tried to put myself into the protagonists’ shoes” and “tried to give concrete detailed accounts so that children can visualize without pictures”.

**Discussion**

The present study examined the students’ narratives at two points in time with a reflective session in-between them. The frequency of use for all the strategies changed in the students’ narratives. A significant increase with a larger effect size was found for Frames of mind. When the individual changes for the frequency of use were examined closely, with the exception of two students, all students increased their use of this strategy.

The previous data of Kuntay, & Nakamura (2004) indicated that Frames of mind was the most frequently used strategy, whereas for the students in the present study the frequency of use of this strategy was almost half of that reported in the previous study. In line with the students’ comments on Frames of mind reported above, the reflection using objective data could have caused this change in the frequency of use.

The next largest change was found in Hedges, with 46 out of 52 students increasing their frequency of use. Causal connectors and Character speech showed moderate effect sizes. Character speech presented interesting changes in which 12

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**Table 2. Spearman correlation coefficients between narrative strategies at Time 1 and Time 2.**

<table>
<thead>
<tr>
<th>Strategy 1</th>
<th>H1</th>
<th>CS1</th>
<th>CC1</th>
<th>ON1</th>
<th>FM2</th>
<th>H2</th>
<th>CS2</th>
<th>CC2</th>
<th>ON2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frames of mind (FM) 1</td>
<td>.321*</td>
<td>.054</td>
<td>.349</td>
<td>.195</td>
<td>.176</td>
<td>.013</td>
<td>.310*</td>
<td>.115</td>
<td>.175</td>
</tr>
<tr>
<td>Hedges (H) 1</td>
<td>-</td>
<td>.376**</td>
<td>.230</td>
<td>.154</td>
<td>-.110</td>
<td>.034</td>
<td>-.019</td>
<td>.043</td>
<td>-.189</td>
</tr>
<tr>
<td>Character speech (CS) 1</td>
<td>-.229</td>
<td>.319*</td>
<td>-.172</td>
<td>.049</td>
<td>.156</td>
<td>-.051</td>
<td>-.094</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causal connectors (CC) 1</td>
<td>.079</td>
<td>.138</td>
<td>.096</td>
<td>-.287</td>
<td>.236</td>
<td>.169</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onomatopoeia (ON)</td>
<td>-</td>
<td>.067</td>
<td>.097</td>
<td>.187</td>
<td>-.193</td>
<td>.302*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frames of mind (FM) 2</td>
<td>-</td>
<td>.248</td>
<td>.015</td>
<td>.204*</td>
<td>.142</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Hedges (H) 2</td>
<td>-</td>
<td>.072</td>
<td>.088</td>
<td>.076</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character speech (CS) 2</td>
<td>-</td>
<td>.195</td>
<td>.581**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causal connectors (CC) 2</td>
<td>-</td>
<td>-</td>
<td>-.342*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
students actually decreased their use of this strategy, whereas all other students increased their use. These bi-directional changes are likely to be related to the students’ reflection and a wider individual variability. In the reflection session, those who had not used any Character speech at all in the first narrative might have felt that it is necessary to use this strategy, whereas those who had already used this strategy might have felt the need to use other strategies such as Frames of mind.

With respect to the efficacy of a reflection session, the increase in the frequency of use for all strategies suggests that there were some positive outcomes in that the students became aware of their strategy use in comparison to the adults data drawn from the previous study (Küntay & Nakamura, 2004) and made some effort to change their use of strategies in their production of the second narrative. However, it is too naïve to draw a conclusion based on the increase in the frequency of strategy use, which only addresses the quantity but not quality of narrative production. Further, an increase may not necessarily be a positive outcome in the quality of the narrative for early years education.

The correlational analyses between different strategy uses may address the qualitative aspect of individual differences. At Time 1 and Time 2 Frames of mind was related to Causal connectors. This relation was held across time, suggesting that those who tended to use more mental state references in their narratives also used more Causal connectors. This result was in line with a previous study of Japanese narratives (Küntay & Nakamura, 2004). This tendency indicates that people who narrate a story using these strategies interpreted a relationship between the narrated events by filling implicit gaps with linguistic references to the mental states of the protagonists. However, it is interesting to note that such tendencies were not found in the Turkish narrative in the aforementioned study (Küntay & Nakamura, 2004), suggesting that this trend may have cross-cultural differences.

Character speech correlated positively with Onomatopoeia and this trend remained at Time 2. This result suggests that those who tended to use more Character speech also used more Onomatopoeia. These correlational results suggest that the way in which people use evaluative strategies varies individually, and this personal tendency seemed robust over time. However, there was a change in the relationship between Character speech and Hedges over time. At time 2, a positive relationship between Character speech and Hedges disappeared, suggesting that there were some effects of reflection on the qualitative changes in the subsequent narratives, though we do not yet know the exact mechanism for changes in quality.

Inter-strategy relationships over time suggest that those who initially used more Frames of mind and Causal connectors used less Character speech at Time 2. As Frames of mind and Causal connectors did not correlate with Character speech at Time 1, it is likely that people who tended to use Frames of mind and causal connectors initially used less Character speech after the reflection session. The relationship can also be regarded as a sign of qualitative change between the two time points.

So far the analyses have suggested some effect of reflection used in the present study for bringing changes in evaluative strategy in narratives. In terms of quantity of strategy use, given a referential framework such as the numerical figures drawn from the previous study, observable changes are likely to occur. However, in terms of quality, how people produce narratives may not be so easily changed. It may be that one reflective session is not sufficient to produce significant changes. Nevertheless, this study indicated some aspects of the evaluative strategy could be changed as a consequence of reflection as seen in the students’ comments, if the direction of a reflective process is systematically navigated.

One of our intentions in implementing the reflective processes in narrative production is to apply such a reflective session to facilitate parents and early years educators in their use of mental state references. Although there are personal styles for
narrating a story and no single style outperforms the rest, evidence from developmental psychology suggest a causal relationship between mental state references and child social understanding. For parents and early years educators such evidence can be borne in mind when they tell a story to young children.

The present study focused on reflection-on-action and found that implementing a reflective session changed the students’ performance. The present study suggests that if there is a deliberate practice of introducing reflective sessions, then the students are able to reflect upon their outcomes, which brings about some changes. However, how reflection practice comes about spontaneously is another issue. As Schön (1983) claimed, reflection-on-action is a retrospective practice we often use, especially when things go wrong. For educational practitioners, it is necessary to put such processes into practice spontaneously. Thus, reflection-in-action also needs to be considered as it is important to monitor on-going interaction with young children and make amendments when necessary.

Finally, the future direction of this line of study is addressed. The reflection session used in the present study was a one-off occasion for students’ learning. If the reflective processes are expected to bringing about extensive outcomes, it is important to locate such processes systematically and such processes need to be evaluated.

References


Acknowledgement

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語りの産出過程にみられる内省の役割の検証
―内省は、心的状態語の使用を促すか？

心理学部 心理学科
辻 弘美

要 旨
物語の産出過程で使用される言語的方略が、省察を行う前・後でどのように変化するかについて52名の女子大学生を対象に検討した。省察のセッションでは、対象者に自らの物語を振り返り、どのような言語的方略をどの程度用いていたか、先行研究の結果と比較対照し、考察するよう求めた。省察後に再度物語産出課題を課したところ、省察前に比べて研究対象となった言語方略の使用頻度有意に増加した。とくに大きな増加がみられたのは、登場人物に心的状態に言及するという側面であった。また、心的状態への言及は、出来事の因果関係の描写の頻度と関連があり、この傾向は、省察の前後で安定的にみられた。これより、省察の前後で方略頻度は変化するものの、個人の物語産出における言語方略の使用傾向の特徴は、省察を行う前後で変化することはないことが示唆された。

キーワード：内省、ナラティブ、評価方略、心的状態語、日本語