Extroversion and group oral performance: A mixed quantitative and discourse analysis approach

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ABSTRACT

This article reports on a data-based study that focuses on one particular personality dimension, extroversion, in relation to oral performance in a second language (L2). The data collected for this study consisted of 40 video-taped performances of Form 4 (Grade 10) secondary students who undertook a practice School-Based Assessment (SBA) group interaction task. Besides analysing the correlation between assessment scores and degree of extroversion, the group interactions were also transcribed and coded for a range of discourse features of group oral language production, such as hesitation, accuracy and mean length of utterance, which were then analysed in relation to the level of extroversion of the participants. In addition, an in-depth analysis of the discourse and interaction of two participants was undertaken. One was classified as an introvert, with a score of 1 on the extroversion scale on the Eysenck Personality Questionnaire (EPQ), and the other was classified as an extrovert, with a score of 12 on the extroversion scale. Overall, correlations between the assessment scores and level of extroversion turned out to be low. Among the seven discourse features analysed, hesitation phenomenon was found to have a statistically significant relation to extroversion. The in-depth analysis of the nature and contents of the discourse and interaction of the two participants, however, revealed that the extrovert demonstrated a more active participation in the assigned assessment task, and the extrovert’s speech generally demonstrated a higher level of accuracy and fluency.

Introduction

Previous research has suggested that a combination of cognitive, affective and demographic factors contribute to the wide variation among language learners in terms of their ultimate success in mastering a second language (Carrell, Prince and Astika 1996; Dörnyei 2005). Research over several decades has produced little conclusive knowledge, due to the complexity of individual differences in L2 learning, and thus continuing investigation is warranted (Ehrman, Leaver and Oxford 2003). One of the major individual factors is personality. According to Ehrman and Oxford (1995), personality may well shape the response of students to the learning situation and to their choice of learning strategies. However, there have been relatively few studies of the relationship between personality and L2 production and development (Dewaele and Furnham 1999). The aims of this exploratory study were to see if there was any relationship between the personality trait of extroversion and group oral English language performances, and to explore the long-held grassroots assumption that extroverted students do better in speaking assessments.

Extroversion and second language performance

One of the two dominant taxonomies focusing on personality traits in the current field of psychology is Eysenck’s three-component construct (for example, Eysenck, Eysenck and Barrett 1985). This construct identifies three supertraits: psychoticism, extroversion and neuroticism.

These three supertraits should be interpreted as a set of bi-polar dimensions that range from one extreme disposition to another; most people fall somewhere in the middle of the continuum (van Daele et al 2006: 216).

The extroversion–introversion dimension has received widespread acceptance in the psychology community over the past several decades (Dewaele 2005). From a neurological point of view, it is
hypothesised that introverts possess a higher level of arousal in the autonomous nervous system and in the cortex (Eysenck 1981). Extroverts tend to seek cortical arousal elsewhere by engaging in sensation-stimulating activities. Consequently, extroverts tend to be outgoing, sociable and risk-taking. They take chances and act on the spur of the moment and tend to be aggressive. Introverts tend to be quiet and unassertive and seldom behave in an aggressive manner (Eysenck and Eysenck 1964). Another important difference between extroverts and introverts revealed by psychological studies is that extroverts are superior to introverts in short-term memory. According to Eysenck (1981), this difference is due to the over-arousal of introverts, which might affect their capacity to retrieve and store several different items of information.

The personality variable that has received most attention in second language acquisition (SLA) research is extroversion. In the area of SLA, some researchers have traditionally claimed that extroverts are better language learners (van Daele et al 2006) because of their willingness to speak out and their greater desire to communicate, which help to increase the amount of input and comprehensible language output (Krashen 1985; Swain 1993). Also, there is a belief, among many classroom teachers, that extroverts have superior L2 communicative ability and are more successful as second or foreign language learners (Lightbown and Spada 1993). This ease at oral communication may positively affect the attitudes of extroverts towards target languages (Dewaele 2005), which facilitates their second or foreign language learning. The study by MacIntyre and Charos (1996) of the impacts of personality traits on frequency of communication in an L2 revealed significant negative correlations between extroversion and language anxiety, suggesting that extroverts communicated more in French as an L2 than introverts. With regard to the type of learning strategies, Wakamoto (2000) found that extroversion significantly correlated with functional practice strategies, where the focus of practice is on actual language use and not on grammatical form or accuracy. Based on a review of the literature on extroversion and L2 learning, Ellis (1994), however, concludes that extroverted learners do better in acquiring basic interpersonal communication skills and introverted learners do better at developing cognitive academic language ability.

Some recent empirical studies of the effects of extroversion on L2 performance have a number of implications for this study. Dewaele and Furnham’s (2000) study of the relationship between extroversion and speech production in assessment situations revealed that extrovert bilinguals were more fluent than introvert bilinguals, especially in interpersonally stressful situations. However, there have been some studies that show no direct significant relationships between extroversion and learner language performance. For example, Ehrman and Oxford (1995) found that extroversion or introversion appeared to have no relationship to end-of-training proficiency measures. In a study of the relationship between the personality types of 76 Indonesian English majors and academic performance in a semester-long English as a Foreign Language (EFL) course (Carrell, Prince and Astika 1996), the students were tested monthly on reading comprehension, vocabulary, grammar and writing. No other direct relationships between personality and language performance measures were found, except that the introverts did significantly better than the extroverts on the vocabulary and composite course scores.

Using the short version of the EPQ (Eysenck, Eysenck and Barrett 1985) to measure degrees of extroversion, van Daele et al (2006) investigated the effect of extroversion on the oral fluency, linguistic complexity and accuracy of 25 Dutch-speaking adolescent learners of French and English. Their results showed that extroversion had an effect on lexical complexity in both target languages and did not have an effect on accuracy scores in either language. Their study also revealed that extroversion did not affect syntactic complexity and oral fluency measures in either language.

Clearly, empirical studies that aim at correlating extroversion and language performance tend to produce inconsistent results. This paper presents a brief summary of potential reasons for this lack of a coherent picture about the impacts of this personality trait on language performance (see Ehrman and Oxford 1995; Carrell, Prince and Astika 1996; Berry 2004; Dörnyey 2005; van Daele et al 2006).

It is possible that personality traits interact with variables inherent in the social contexts of learning and assessment situations, preventing generalised linear associations (such as correlations) from reaching overall significance. It is also possible that the specific personality variable under investigation may not be strong enough to compete, in oral language production, with other cognitive variables, such as language aptitude and information processing strategies, and affective variables, such as task-based motivation and willingness
to communicate. There is also a lack of consensus among researchers with regard to which linguistic traits to measure and at which level. Different studies that have used different criteria for language performance have permitted considerably different time lapes between the collection of predictor and criterion data. The choice of oral task-types and the oral register may also generate trade-off effects on linguistic measures. For example, the oral narrative seems to produce more complex, less accurate and less fluent linguistic output than personal-information exchange and decision-making tasks (Foster and Skehan 1996). The task conditions used may not be stringent or formal enough for the superior inhibitional faculties of extroverts to manifest themselves. The settings in some of the previous studies may have been too neutral in that no formal consequences were linked to the oral performances. Relatively little variation in the sample with regard to a personality trait results in reduction in correlation strength.

The present study sought to investigate how extroversion may associate not only with oral performance scores but also with some specific discourse features of group oral language production in peer group assessment situations. Specifically, the key research question was ‘How may extroversion correlate with secondary ESL students’ oral performance in group oral assessment situations?’

Background

The Hong Kong Examinations and Assessment Authority (HKEAA) has incorporated a substantial school-based summative oral assessment component into the compulsory English-language subject in the Hong Kong Certificate of Education Examination. This is in line with a sociocultural perspective, both in learning and in assessment, that emphasises situated cognition (Brown, Collins and Duguid 1989), learning through participation in social activities (Lave and Wenger 1991), and culturally relevant assessment designs and authentic assessment task formats (Smith, Teemant and Pinnegar 2004). This SBA component, which starts in Form 4 of secondary school (Grade 10), aims to assess authentic-like oral language use that is not easily assessed by traditional public examinations (School-Based Assessment Consultancy Team 2006). In particular, SBA has been designed to be integrated into normal classroom teaching and learning processes, with classroom teachers involved at all stages of the assessment cycle from planning to scoring (Davison 2005).

Specifically, the SBA component involves two kinds of oral activities – individual presentation and group oral interaction – that are based on topics and texts drawn from a program of independent extensive reading/viewing. To ensure the reliability of the assessment procedures, it is stipulated that only teachers who have been trained in the SBA process, and authorised by the HKEAA and the school as assessors, are permitted to conduct the school-based oral English assessment component. This study focused on oral language performance in group interactions. The assessment criteria for group oral interactions focus on four major domains of English spoken proficiency:

1. Pronunciation and delivery
2. Communication strategies
3. Vocabulary and language patterns
4. Ideas and organisation.
These criteria are divided into six levels, with Level 1 representing the lowest level and Level 6 representing the highest level, as outlined in Table 1 (see the appendix for full level descriptions). A student’s global score on a group interaction task is calculated by adding up the student’s scores in each of the four domains.

Table 1: School-based assessment criteria for group interaction at Level 6 and Level 1

<table>
<thead>
<tr>
<th>1 Pronunciation and delivery</th>
<th>2 Communication strategies</th>
<th>3 Vocabulary and language patterns</th>
<th>4 Ideas and organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Can project the voice appropriately for the context</td>
<td>• Can use appropriate body language to display and encourage interest</td>
<td>• Can use a wide range of accurate vocabulary</td>
<td>• Can express a wide range of relevant information and ideas without any signs of difficulty</td>
</tr>
<tr>
<td>• Can pronounce all sounds/sound clusters and words clearly and accurately</td>
<td>• Can use a full range of turn-taking strategies to initiate and maintain appropriate interaction and can draw others into extending the interaction, eg by summarising for others’ benefit, or by redirecting a conversation, and can avoid the use of narrowly formulaic expressions when doing this</td>
<td>• Can use varied and highly accurate language patterns; minor slips do not impede communication</td>
<td>• Can consistently respond effectively to others, sustaining and extending a conversational exchange</td>
</tr>
<tr>
<td>• Can speak fluently and naturally with very little hesitation and using intonation to enhance communication</td>
<td>• Can use a wide range of accurate vocabulary</td>
<td>• Can self-correct effectively</td>
<td>• Can use the full range of questioning and response levels to engage with peers</td>
</tr>
</tbody>
</table>

| Level 1                      |                            |                                   |                         |
|------------------------------|----------------------------|                                   |                         |
| • Volume is likely to be a problem | • Can use restricted features of body language when required to respond to peers | • Can produce a narrow range of simple vocabulary | • Can occasionally produce brief information and ideas relevant to the topic |
| • Can pronounce some simple sounds and common words accurately enough to be understood | • Can use only simple and narrowly restricted formulaic expressions, and only to respond to others | • Can use a narrow range of language patterns in very short and rehearsed utterances | • Can make some brief responses or statements when prompted |
| • Can use appropriate intonation in the most familiar of words and phrases; hesitant speech makes the listener’s task difficult |                                   | • A restricted sample of language makes full assessment of proficiency difficult |                         |

(School-Based Assessment Consultancy Team 2006)

The 40 Cantonese mother-tongue participants in this study were Form 4 (secondary school) English as a second language (ESL) students (14 male and 26 female) aged between 15 and 18 years. They agreed to participate in this project on the basis of experiencing the group peer oral interaction under assessment-like conditions. This would enable them to gauge their readiness for the assessment and receive feedback.
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from the researcher and their teacher assessor about possible areas to improve, in preparation for the official assessment.

**Eysenck Personality Questionnaire**

The EPQ is thought by many psychologists and educators to be the most reliable of all the possible instruments for the measurement of extroversion (Berry 2004). There is a concise version of the EPQ, the Eysenck Personality Questionnaire-r (EPQ-r) (Eysenck, Eysenck and Barrett 1985), which measures an individual's degree of psychoticism, extroversion and neuroticism by means of self-reported answers to 48 yes–no questions (van Daele et al 2006). The extroversion–introversion scale in the EPQ-r has 12 questions that identify the level of extroversion. In this study, the participants were given the EPQ-r to determine their degree of extroversion. According to van Daele et al (2006), the higher the score on the 12 items of the extroversion–introversion scale, the more the subject tends towards the extroversion personality trait (the highest score on this scale is 12). Generally, extroversion scores in a normal population approximate a normal curve with averages ranging between 6 and 8 (Sanderman et al 1995; van Daele et al 2006).

**Assessment task**

The students were grouped into 10 four-member groups¹ and participated in the following assessment task (see Figure 1) that required them to discuss and make decisions about rewriting the script of a scene from a book they had read.

**Figure 1: Group interaction assessment task**

Assessment task

Matilda is given a special gift in the middle of the book whereby she can lift things, even heavy items, off any surface with her eyes and total concentration. As a group of student helpers of the Counselling Team in your school, you have to rewrite the script of a scene for the Lunar New Year Night. The scene will be enacted by the Drama Club members in front of parents on the New Year’s Eve.

**As the script writer, think of another special gift for Matilda and rewrite a scene with that special gift.** Here are some suggestions: you can make her invisible or you can make her able to transform herself into another person without anyone noticing it.

Group members do not have to come to a consensus. All of you can combine your ideas in your decision on how to rewrite the scene with the new gift. Or you can choose the best idea among the group members.

While the students were engaged in the group oral discussion, the teacher assessor, who had been well trained through the professional development support program offered by the HKEAA, sat nearby and assessed each participant with a scoring sheet. Each student received a separate score for each of the four domains of assessment criteria, as well as a global score as a result of the aggregation of the domain scores. Each group discussion activity lasted about eight minutes and was videotaped. The whole videotaping process lasted about two hours. The teacher assessor watched the videotapes to further check the scores awarded to each participant and then submitted all the assessment scores to the researcher the following day.
Analytical method

The focus of the study was on how specific discourse features of group oral production might correlate with the level of extroversion. The video-taped group interactions were transcribed following conversation analysis conventions (Atkinson and Heritage 1984) (see Figure 2).

Figure 2: Transcription notation symbols

<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( )</td>
<td>short pauses of less than .2 s; longer pauses appear as a time within parentheses: for example, (.3) is three tenths of a second.</td>
</tr>
<tr>
<td>:</td>
<td>a lengthened sound or syllable; more colons prolong the stretch.</td>
</tr>
<tr>
<td>.</td>
<td>falling intonation</td>
</tr>
<tr>
<td>?</td>
<td>rising intonation</td>
</tr>
<tr>
<td>,</td>
<td>continuing intonation</td>
</tr>
<tr>
<td>=</td>
<td>a latched utterance, no interval between utterances.</td>
</tr>
<tr>
<td>[ ]</td>
<td>overlapping talk</td>
</tr>
<tr>
<td>(( ))</td>
<td>nonverbal action</td>
</tr>
</tbody>
</table>

(based on Atkinson and Heritage 1984)

Based on the literature of both second language acquisition and conversation studies, the following seven discourse features were selected for analysis:

1. Total number of words produced by each participant.
2. Number of turns produced by each student during the group discussion.
   A turn is defined as everything a speaker said when he or she held the floor (Johnson and Tyler 1998; Moder and Halleck 1998).
3. Number of initiating turns.
   An initiating turn is a move that introduces a new proposition for negotiation.
4. Number of responding turns.
   Responding turns are moves in which the speaker expands or elaborates on a topic in the preceding utterances, or answers a question in the immediately preceding turn.
5. Hesitation phenomenon.
   This was measured by calculating the proportion of er (Dewaele and Furnham 2000), as well as the unfilled pauses produced by a speaker.
6. Accuracy.
   This was measured by means of the ratio of the number of error-free clauses relative to the total number of clauses (Kormos and Dörnyei 2004).
7. Mean length of utterance.
   According to Dewaele and Furnham (2000), the mean length of the three longest utterances produced by a speaker can well reflect the learners’ capacity to build complex structures in the interlanguage. For this study, mean length of utterance was derived by measuring mean length of the three longest utterances produced by a speaker (Dewaele and Furnham 2000).
The transcripts were then coded and analysed in relation to these seven discourse features. This was done by a research assistant but was later checked by the researcher. When disagreement concerning a particular episode of the interactions occurred, the episode was re-watched and re-examined until consensus was achieved between the research assistant and the researcher.

To provide further insight into the issue of extroversion and group oral assessment performance, an in-depth analysis of the nature of discourse and interaction was undertaken of two participants, one of whom was classified as an introvert (score of 1 on EPQ) and the other an extrovert (score of 12 on EPQ).

**Results and discussion**

**Assessment score analysis**

To examine the relation of the assessment scores awarded to each participant with the level of extroversion, Pearson’s correlation was performed (see Dewaele and Furnham 2000). As shown in Table 2, extroversion with the global score was positive but low ($r = .218$).

**Table 2: Correlations between extroversion and the assessment scores**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Extroversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pronunciation and delivery</td>
<td>$r = 0.183$</td>
</tr>
<tr>
<td>Communication strategies</td>
<td>$r = 0.308$</td>
</tr>
<tr>
<td>Vocabulary and language patterns</td>
<td>$r = 0.216$</td>
</tr>
<tr>
<td>Ideas and organisation</td>
<td>$r = 0.061$</td>
</tr>
<tr>
<td>Global score</td>
<td>$r = 0.218$</td>
</tr>
</tbody>
</table>

($r$ represents Pearson correlation coefficient).

*p < 0.05; **p < 0.01

($p$ represents probability level)

Among the domain scores, communication strategies showed the highest level of association with extroversion ($r = 0.308$) but did not reach the significance level. Pronunciation and delivery and vocabulary and language patterns both revealed low correlations ($r = 0.183$ and $r = 0.216$ respectively), whereas ideas and organisation showed almost no association with extroversion ($r = 0.061$). The relatively higher correlation with communication strategies could be explained if we take into account the aim of the group interaction task in the SBA initiative, which focuses on assessing a student’s oral skills, particularly on maintenance and control of an oral interaction through suggestions, questions and expansion of ideas (School-Based Assessment Consultancy Team 2006). The criteria for communication strategies for group interaction thus emphasise the use of a range of turn-taking strategies to initiate and draw others into extending appropriate interaction, as well as the use of appropriate body language to display and encourage interest. In light of this, it can be speculated that the more extroverted students in this study were more active in initiating and sustaining interaction, and more active in encouraging, by means of verbal or non-verbal behaviour, peer group members to contribute to the interaction. Consequently, the more introverted students might be at a disadvantage in competing with extroverted students for opportunities to speak during the interaction.
Discourse feature analysis

Pearson’s correlation was also performed to calculate the correlation between the seven discourse features of group oral production and extroversion. As can be seen in Table 3, hesitation phenomenon is the only one of these discourse features that demonstrates a statistically significant relation with extroversion ($r = 0.318, p < 0.05$).

Table 3: Correlations between extroversion and the seven discourse features of group oral language production

<table>
<thead>
<tr>
<th>Discourse feature</th>
<th>Extroversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of words</td>
<td>$r = 0.249$ (p = 0.121)</td>
</tr>
<tr>
<td>Hesitation phenomenon</td>
<td>$r = *0.318$ (p = 0.045)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>$r = 0.087$ (p = 0.594)</td>
</tr>
<tr>
<td>Mean length of utterance</td>
<td>$r = 0.207$ (p = 0.201)</td>
</tr>
<tr>
<td>Number of turns</td>
<td>$r = –0.009$ (p = 0.957)</td>
</tr>
<tr>
<td>Number of initiating turns</td>
<td>$r = 0.215$ (p = 0.182)</td>
</tr>
<tr>
<td>Number of responding turns</td>
<td>$r = –0.050$ (p = 0.758)</td>
</tr>
</tbody>
</table>

(‘r’ represents Pearson correlation coefficient).

*p < 0.05; **p < 0.01

(‘p’ represents probability level)

Hesitation was measured by means of the proportion of ‘er’ (Dewaele and Furnham 2000), as well as the unfilled pauses produced by each participant. The significant correlation with hesitation phenomenon observed in this study might be related to the fact that some students with a higher level of extroversion happened to produce a greater number of words throughout the interaction, as reflected in a positive correlation between extroversion and number of words (see Table 3). It probably makes sense that secondary ESL learners, such as the participants in this study, who speak more in spontaneous conversations are more likely to have filled and unfilled pauses (i.e. to hesitate), as filled or unfilled pauses may be due to linguistic handicap. Due to physical constraints, other important fluency indicators, such as speech rate, were not examined. In spite of the significant correlation between extroversion and hesitation phenomenon documented in this study, it seems immature to conclude that the negative effect of extroversion manifests itself as fluency in group oral assessment situations. This topic clearly warrants further vigorous empirical research.

Another interesting result (see Table 3) is that extroversion shows a positive correlation with number of initiating turns and number of words, but a negative correlation with number of turns and number of responding turns. The positive correlations with number of initiating turns and number of words appear low ($r = 0.215$ and $r = 0.249$ respectively), but are in line with the presumed risk-taking and dominating behaviour of extroverts, who are seen as having a preference in trying out a greater variety of word and sentence types, irrespective of accuracy (van Daele et al 2006). This is actually reflected in a relatively higher correlation with mean length of utterance ($r = 0.207$), which is an important indicator of speech complexity, rather than with accuracy ($r = 0.087$) (see Table 3).
Pearson’s correlation was also used to provide insights into the potential linkage between the assessment scores awarded to the participants and the seven specific discourse features of group oral language production. Table 4 shows that number of words and number of turns were significantly correlated with each of the four domain scores and the global score. Moreover, number of initiating turns correlated significantly with vocabulary and language patterns, and number of responding turns correlated significantly with communication strategies and global score.

Table 4: Correlations between extroversion and the seven discourse features of group oral language production

<table>
<thead>
<tr>
<th></th>
<th>Pronunciation and delivery</th>
<th>Communication strategies</th>
<th>Vocabulary and language patterns</th>
<th>Ideas and organisation</th>
<th>Global score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of words</td>
<td><strong>0.483</strong></td>
<td><strong>0.505</strong></td>
<td><strong>0.568</strong></td>
<td><strong>0.467</strong></td>
<td><strong>0.570</strong></td>
</tr>
<tr>
<td>Hesitation phenomenon</td>
<td>0.014</td>
<td><strong>0.323</strong></td>
<td>0.198</td>
<td>0.121</td>
<td>0.197</td>
</tr>
<tr>
<td>Accuracy</td>
<td>0.058</td>
<td>-0.070</td>
<td>0.072</td>
<td>-0.052</td>
<td>-0.003</td>
</tr>
<tr>
<td>Mean length of utterance</td>
<td>0.159</td>
<td>0.260</td>
<td>0.227</td>
<td>0.202</td>
<td>0.243</td>
</tr>
<tr>
<td>Number of turns</td>
<td><strong>0.429</strong></td>
<td><strong>0.395</strong></td>
<td><strong>0.424</strong></td>
<td><strong>0.361</strong></td>
<td><strong>0.450</strong></td>
</tr>
<tr>
<td>Number of initiating turns</td>
<td>0.241</td>
<td>0.269</td>
<td><strong>0.313</strong></td>
<td>0.165</td>
<td>0.278</td>
</tr>
<tr>
<td>Number of responding turns</td>
<td>0.283</td>
<td><strong>0.372</strong></td>
<td>0.266</td>
<td>0.300</td>
<td><strong>0.346</strong></td>
</tr>
</tbody>
</table>

(‘r’ represents Pearson correlation coefficient).

*p < 0.05; **p < 0.01

(‘p’ represents probability level)

These results suggest that the quantity of talk might play an important role in the teacher’s assessment of student oral performance. This appears to be further supported by the mainly negative correlations that occurred between accuracy and assessment scores, as well as a generally low level of association between the various assessment scores and hesitation phenomenon or mean length of utterance. In light of these results, it could be concluded that the quantity aspects of individual linguistic performance seemed better reflected in the various assessment scores than the quality aspects.

Case studies

While the assessment score and specific discourse feature analyses above present a global picture of the relationships between extroversion and group oral performance, such a global picture might obscure the complexities of the issue. The following section examines in detail the nature of discourse and interaction produced in the group interaction by the two participants CP and HY. CP was classified as an introvert, as his score on the extroversion scale was 1. HY was classified as an extrovert, as his score on the extroversion scale was 12. CP and HY, together with two other students, formed one group for the assessment task in this study. Interestingly, CP and HY were awarded exactly the same global and domain scores (see Table 5).
Table 5: Data on CP (introvert) and HY (extrovert)

<table>
<thead>
<tr>
<th>Area</th>
<th>Variable</th>
<th>CP</th>
<th>HY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality</td>
<td>Extroversion</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Assessment scores</td>
<td>Global score</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Pronunciation and delivery</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Communication strategies</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Vocabulary and language</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>patterns</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ideas and organisation</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Discourse features of group oral</td>
<td>Number of words</td>
<td>151</td>
<td>202</td>
</tr>
<tr>
<td>production</td>
<td>Number of turns</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Number of initiating turns</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Number of responding turns</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Hesitation phenomenon</td>
<td>44</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Accuracy</td>
<td>0.67</td>
<td>0.94</td>
</tr>
<tr>
<td></td>
<td>Mean length of utterance</td>
<td>36.7</td>
<td>47.7</td>
</tr>
</tbody>
</table>

Comparing the performance of the two students:

- CP had 17 turns, which was 31 per cent of the total number of turns by all four group members, whereas HY had 10 turns, which was 18 per cent of the total number of turns by all four group members.

- HY produced a greater number of words (202) than CP (151).

- Most impressively, HY had 7 initiating turns, which was 58.3 per cent of all the initiating turns by all four group members, whereas CP only had 2 initiating turns, which was 16.7 per cent of turns.

- Another striking difference is that CP had 15 responding turns, which was 34.9 per cent of all the responding turns by all four group members, whereas HY had 3 responding turns, which was 6.98 per cent of turns.

- A third striking difference is that HY had a much higher rate of accuracy (0.94) than CP (0.67). The average accuracy rate for the whole group was 0.64.

- HY was higher than CP in mean length of utterance but lower in hesitation phenomenon.

In light of these results, it could be concluded that HY’s participation in the group discussion was characterised by a stronger tendency to initiate, and his linguistic utterances demonstrated a higher level of accuracy and complexity. On the other hand, CP’s participation was characterised by a higher frequency of responding, but his linguistic utterances demonstrated a lower level of accuracy and complexity, as well as a higher level of hesitation.

**Introvert participant (CP)**

An inspection of CP’s turns during the interaction shows that eight of his 17 turns were single word or phrase utterances. Usually, when the preceding speaker paused, CP jumped in to finish what the speaker was going to say. This could possibly create an impression that he was responsive and helpful.
Excerpt 1

L1 Peter: Oh, yes. I think we can act the scene about (.5) err (.2) err the student call::ed
L2 (.2) Enova and =
L3 CP: = Lavender.
L4 TK: Lavender.
L5 CP: Lavender.
L6 Peter: Not Lavender. I forget the name, the pronunciation of the name. And the
L7 principal will throw the (.2) will throw she to (1.0)
L8 CP: Out of
L9 Peter: Out of the window and Matilda can act (.2) can change to invisible and take
L10 hold of the principal and the principal will not success to err throw the (.2)
L11 student outside. Do you think it is a good idea?

In Excerpt 1, Line 1, Peter fails to recall the name of one of the characters; CP and TK almost simultaneously step in with Lavender. CP further repeats Lavender in Line 5. In Line 8, CP supplies out of, which is used by Peter in Line 9.

Excerpt 2

L1 CP: move something to other places. In the scene of throwing the hammer Miss
L2 Trunch Miss Trunchbull err would err throw the student out=throw the student
L3 err but if Matilda have this super power she can err move that student so that
L4 move that student to a safety place so that err the that student will not be hurt
L5 by Miss Trunchbull. Um also, err if (.5) if Matilda (.5) found if Matilda err is
L6 found by err Miss Trunchbull err she can avoid = avoid to be (.2) threw by
L7 Miss Trunchbull.

Excerpt 2 is the longest turn of utterances by CP. Besides prolonging phenomenon (eg by and avoid) and hesitation, both filled and unfilled pauses, his utterances were full of repetitions such as Miss Trunch Miss Trunchbull, throw the student out=throw the student, move that student so that move that student, if (.5) if Matilda (.5) found if Matilda err is found by err Miss Trunchbull err she can avoid = avoid to be (.2) threw by.

Excerpt 3

L1 TK: I quite like (.5) your you’re your …
L2 CP: Opinion.
L3 TK: Opinion, yes. Well, but there’s a problem which is (.8) it’s difficult to do the
L4 thing that action (.2) that Miss Trunchbull picked up the {key/cake} and
L5 tried to throw it.
L6 HY: Yes, it is very dangerous in the school hall and the parents err when the
L7 parents see this, they will (.5) err (.8) they will think err it is (.2) err not good
L8 to have this scene.
L9 TK: Dangerous and difficult
L10 Peter: Yes, I think so.
L11 CP: Yes. It’s quite difficult, dangerous.

It can be seen that CP not only repeats his own utterances within his own turn but also has a tendency to repeat utterances in the preceding turns. At the beginning of Excerpt 3 in Line 2, CP completes what TK wants to say in Line 1 (opinion). TK and HY each has a long turn (Line 3 to Line 8). In Line 9, TK highlights the main points in the preceding two turns with dangerous and difficult. Following this, Peter expresses his agreement with Yes, I think so (Line 10), but CP’s utterance in Line 11 – Yes. It’s quite difficult,
dangerous – is merely a repetition of TK’s words. Although repetition of the previous utterances, as a response to the preceding turns, displays CP’s willingness to be involved in the peer-group interaction, it is evidently different from HY’s proactive style of speech, which is characterised by initiation and encouraging other interlocutors to contribute, which will be discussed below.

Excerpt 4

| L1 | Peter: | I think this is not a good idea because the scene you want to act is not interesting enough and the parents will feel boring. I think that. |
| L2 | CP: | So, what is your opinion? |
| L3 | Peter: | My opinion is to stop the principal to take hold ah no, no, no, no, no, stop the student no, stop taking the no, |
| L4 | TK: | Stop Ms Trunchbull. |
| L5 | Peter: | yeah, to throw the student How can Miss Trunchbull? |
| L6 | CP: | How can you stop the Ms Trunchbull? |

So far we have observed that CP’s responding turns were largely full of repetitions or single word or phrase utterances. Throughout the interaction, he asked questions twice; one was formulaic and one was clearly full of repetition and rewording/repronunciation. In Excerpt 4, after Peter explains why he thought what the previous speaker said was not a good idea, CP, without any specific comments on Peter’s explanation, asks a formulaic question – what is your opinion? Peter might have felt a bit puzzled because what he said in lines 1 and 2 were already his opinion. In Lines 9 and 10, CP asks a second question – How can Miss Trunchbull? However, this question is full of repetitions, pronunciation errors, unfilled pauses and wrong use of the.

Extrovert participant (HY)

Throughout the interaction, HY seems to assume the role of leading the group in starting, sustaining and concluding the discussion. Excerpt 5 is the beginning of the assessment.

Excerpt 5

| L1 | HY: | Let’s start the discussion, shall we? |
| L2 | Others: | Yes. |
| L3 | HY: | Today you need to discuss the topic which is giving another special gift for Matilda and a scene. Do you have any suggestion? |
| L4 | CP: | Peter. |
| L5 | Peter: | Oh, yes. I think we can act the scene about err the student called Enova and … |

HY begins the conversation with Let’s start the discussion, shall we? This is followed by everyone else saying Yes. In Lines 3 and 4, HY specifies what is going to be discussed and then asks, Do you have any suggestion? Surprisingly, CP, in Line 5, avoids responding to this question by openly passing the question to Peter. This shows CP could be nervous or unwilling to speak, in contrast to HY’s role in leading the group interaction.

HY’s unique speech characteristic is his natural and innovative initiation during the interaction. Altogether, there were 12 initiating turns throughout the group interaction, with seven of these made by HY.
Excerpt 6

L1 TK: Maybe just (.2) just err (.8) let her wear a white clothes or some something like that and and explain that she became invisible.
L2 Peter: Yes, also a good idea.
L3 HY: Why don’t we choose the scene that the super glue put on his father’s head? I think it is a good punishment to his father because his father did something bad and cheat the customers. I think if (.2) after we have putting the super glue (. ) head onto his father, just head. Err Matilda will be invisible (.2) so that his father will not know err Matilda’s trick and do not punish her. Do you agree?
L4 TK: Yes. That’s quite okay.
L5 Peter: Yeah. That’s a good idea.
L6 CP: Good idea
L7 HY: Shall we combine the scene together?
L8 Peter: Yes
L9 CP: Yes.

In Excerpt 6, TK proposes, let her wear a white clothes or some something like that and and explain that she became invisible, and Peter responds, Yes, also a good idea. Then HY swoops in with another proposal, beginning with Why don’t we choose the scene that the super glue put on his father’s head? Between Line 4 and Line 9, HY clearly presents, explains, justifies and asks for feedback about his proposal, although there are occasional filled and unfilled pauses. Apparently, HY’s proposal and the way he speaks are appreciated, as can be seen in each of the following positive comments by TK, Peter and CP. More impressively, in Line 13, HY further proposes, Shall we combine the scene together?, which appears innovative and occurs at a very appropriate moment. Clearly, HY’s initiation moves play an important role in sustaining the interaction and bringing the discussion to completion.

Conclusion

This study examined one particular personality dimension, extroversion, in relation to group oral English language performance, measured with the EPQ. Drawing on data collected during Form 4 (Grade 10) secondary school-based group oral assessment activities, the study examined how extroversion correlated with specific discourse features of group oral production, as well as assessment scores. In addition, in-depth case studies of the discourse and interaction of two participants, one an introvert and the other an extrovert, were conducted.

The findings showed that extroversion had no significant correlation with the assessment scores awarded to the participants in the group interaction task. As for the seven discourse features of group oral production, hesitation phenomenon demonstrated a significant correlation with the level of extroversion. This significant correlation between hesitation and extroversion, however, does not necessarily mean that extroversion might have a negative effect on fluency in group oral assessment settings, as the study did not investigate other important indicators of fluency, such as speech rate.

In summary, positive correlations between extroversion and assessment scores or the majority of the seven discourse features analysed in this study appeared to be low, generally echoing the statistical findings in the studies of Ehrman and Oxford (1995) and Carrell, Prince and Astika (1996). One interpretation of the low correlations found in this study could be that our sample displayed a high average extroversion score (mean 8.90, SD 3.034), whereas the average in most other populations falls in the 6 to 8 range’ (van Daele et al 2006). The limitation of the range of the sample in the study and its relative homogeneity might lower the effects of extroversion on some features of group oral production, as well as the assessment outcomes, and consequently might result in reduction in correlation strength.

The in–depth case studies of the nature and contents of the discourse and interaction of the two students might suggest that the extrovert played an important role in initiating and sustaining the interaction, whereas the introvert demonstrated a largely reticent or cautious personality, with speech
that was full of single word utterances, hesitations, repetitions and linguistic errors. The fact that both the introvert and extrovert received the same assessment scores might also suggest that the teacher assessor might have attended more to the quantity of talk rather than the quality of language produced. Consequently, the teacher assessor factor might have blurred the personality distinctions between the subjects in the study sample. In other words, the lack of impact of personality on scores could partly be due to a potential trade-off between student linguistic variables and the teacher assessor factor.

The in-depth case studies of the discourse and interaction of the introvert and extrovert students provided further insight into the complexity that might characterise the role of extroversion in group oral performance under SBA conditions. Clearly, verbal behaviour occurring in group oral task situations is partly determined by a number of non-linguistic and non-cognitive factors for which further investigations may constitute a potentially fruitful extension of the current task-based research work (Dörnyei and Kormos 2004). Further research might well consider how extroversion and other personality traits interact with other situation-specific variables, such as topic choice, familiarity with task-type and inter-member relations, in affecting the discourse produced in group oral assessment and how these variables, through their effect on discourse, impact the scores assigned in these situations.

Acknowledgments

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Appendix

School-based assessment criteria for group interaction in HKEAA

<table>
<thead>
<tr>
<th>1 Pronunciation and delivery</th>
<th>2 Communication strategies</th>
<th>3 Vocabulary and language patterns</th>
<th>4 Ideas and organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 6</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Can project the voice appropriately for the context</td>
<td>• Can use appropriate body language to display and encourage interest</td>
<td>• Can use a wide range of accurate vocabulary</td>
<td>• Can express a wide range of relevant information and ideas without any signs of difficulty</td>
</tr>
<tr>
<td>• Can pronounce all sounds/sound clusters and words clearly and accurately</td>
<td>• Can use a full range of turn-taking strategies to initiate and maintain appropriate interaction and can draw others into extending the interaction, e.g. by summarising for others’ benefit, or by redirecting a conversation, and can avoid the use of narrowly formulaic expressions when doing this</td>
<td>• Can use varied and highly accurate language patterns; minor slips do not impede communication</td>
<td>• Can consistently respond effectively to others, sustaining and extending a conversational exchange</td>
</tr>
<tr>
<td>• Can speak fluently and naturally with very little hesitation and using intonation to enhance communication</td>
<td>• Can use the full range of questioning and response levels (see Framework of Guiding Questions) to engage with peers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cont …
### Pronunciation and delivery

- Can project the voice appropriately for the context
- Can pronounce all sounds/sound clusters clearly and almost all words accurately
- Can speak fluently with only occasional hesitation, and using intonation to enhance communication, giving an overall sense of natural nonnative language

### Communication strategies

- Can use appropriate body language to display and encourage interest
- Can use a good range of turn-taking strategies to initiate and maintain appropriate interaction, eg by encouraging contributions from others in a group discussion, by asking for others’ opinions, or by responding to questions; can mostly avoid the use of narrowly formulaic expressions when doing this

### Vocabulary and language patterns

- Can use varied and almost always appropriate vocabulary
- Can use almost entirely accurate and appropriate language patterns
- Can usually self-correct effectively

### Ideas and organisation

- Can express relevant information and ideas clearly and fluently
- Can respond appropriately to others to sustain and extend a conversational exchange
- Can use a good variety of questioning and response levels (see Framework of Guiding Questions)

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Can project the voice mostly satisfactorily</td>
<td>• Can use some features of appropriate body language to encourage and display interest</td>
</tr>
<tr>
<td>• Can pronounce most sounds/sound clusters and all common words clearly and accurately; less common words can be understood although there may be articulation errors, eg dropping final consonant clusters</td>
<td>• Can use a range of appropriate turn-taking strategies to participate in, and sometimes initiate, interaction, eg by responding appropriately to others’ comments on a presentation, by making suggestions in a group discussion</td>
</tr>
<tr>
<td>• Can speak at a deliberate pace, with some hesitation but using sufficient intonation conventions to convey meaning</td>
<td>• Can use some creative as well as formulaic expressions if fully engaged in interaction</td>
</tr>
<tr>
<td>• Can use mostly appropriate vocabulary</td>
<td>• Can use language patterns that are usually accurate and without errors that impede communication</td>
</tr>
<tr>
<td>• Can self-correct when concentrating carefully or when asked to do so</td>
<td>• Can use relevant literal ideas clearly with well-organised structure</td>
</tr>
<tr>
<td>• Can present relevant ideas clearly and fluently</td>
<td>• Can often respond appropriately to others; can sustain and may extend some conversational exchanges</td>
</tr>
</tbody>
</table>
| • However: Can do these things less well when attempting to respond to interpretive or critical questions, or can interpret information and present elaborated ideas, but at these questioning levels coherence is not always fully controlled | **Cont ...**
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Level 3</strong></td>
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</table>

- Volume may be a problem  
- Can pronounce all simple sounds clearly but some errors of sound clusters; less common words may be misunderstood unless supported by contextual meaning  
- Can speak at a careful pace and use sufficient basic intonation conventions to be understood by a familiar and supportive listener; hesitation is present

- Can use appropriate body language to show attention to the interaction  
- Can use appropriate but simple and formulaic turn-taking strategies to participate in, and occasionally initiate, interaction, eg by requesting repetition and clarification or by offering praise  
- Can use simple vocabulary and language patterns appropriately and without errors that impede communication  
- Can sometimes self-correct simple errors  
- May suggest a level of proficiency above 3 but has provided too limited a sample

- Can express some relevant ideas sequentially with some links among their own ideas and with those presented by others  
- Can respond to some simple questions and may be able to expand these responses when addressed directly

| **Level 2**                  |                            |                                   |                         |

- Volume may be a problem  
- Can pronounce simple sounds/sound clusters well enough to be understood most of the time; common words can usually be understood within overall context  
- Can produce familiar stretches of language with sufficiently appropriate pacing and intonation to help listener's understanding

- Can use appropriate body language when especially interested in the group discussion or when prompted to respond  
- Can use simple but heavily formulaic expressions to respond to others, for example, by offering greetings or apologies  
- Can appropriately use vocabulary drawn from a limited and very familiar range  
- Can use some very basic language patterns accurately in brief exchanges  
- Can identify some errors but may be unable to self-correct  
- Provides a limited language sample

- Can make some contribution to a conversation when prompted

Cont …
Extroversion and group oral performance: A mixed quantitative and discourse analysis approach

Cont …

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Level 1</strong></td>
<td></td>
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<tr>
<td>• Volume is likely to be a problem</td>
<td>• Can use restricted features of body language when required to respond to peers</td>
<td>• Can produce a narrow range of simple vocabulary</td>
<td>• Can occasionally produce brief information and ideas relevant to the topic</td>
</tr>
<tr>
<td>• Can pronounce some simple sounds and common words accurately enough to be understood</td>
<td>• Can use only simple and narrowly restricted formulaic expressions, and only to respond to others</td>
<td>• Can use a narrow range of language patterns in very short and rehearsed utterances</td>
<td>• Can make some brief responses or statements when prompted</td>
</tr>
<tr>
<td>• Can use appropriate intonation in the most familiar of words and phrases; hesitant speech makes the listener’s task difficult</td>
<td>• A restricted sample of language makes full assessment of proficiency difficult</td>
<td></td>
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</tr>
</tbody>
</table>

| **Level 0**                  |                            |                                  |                        |
| • Does not produce any comprehensible English speech | • Does not use any interactional strategies | • Does not produce any recognisable words or sequences | • Does not produce any appropriate, relevant material |

(School-Based Assessment Consultancy Team 2006)

**Notes**

1 Students chose their own group members.
2 Consent for use of the recordings for this study purpose was obtained from the students.

**References**


Extroversion and group oral performance: A mixed quantitative and discourse analysis approach


ZHENGDONG GAN

