Enhancing adolescents' responses to projection plates through a dynamic assessment technique of questioning

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The value of projected storying in assessment is widely recognised, perhaps nowhere more than when working with children and adolescents. Yet the technique has its pitfalls, including the way the stories produced may be influenced by digressing from standard instructions, using different methods of interpretation, and administering the instrument cross-culturally. Psychologists presenting projection plates to adolescent clients in South Africa frequently obtain little more than one-liners from standard procedures, raising doubts about viability and reliability of the technique. Questioning needs to be enhanced without compromising the projective value of responses. In this research we aimed to determine the effects of a dynamic assessment (DA) technique of questioning when using projection plates with adolescents in cross-cultural situations. Applying the test-mediate-retest principle of DA, the assessor explained to participants the relevance of her (strictly non-directive) verbal and non-verbal responses to their storying, as encouragement to elaborate on their responses. A multiple case-study was undertaken with three participants. Instrumentation consisted of two TAT plates and four non-standard plates, self-selected to accommodate possible cultural differences. Data-analysis and interpretation took two forms, projection analysis (using the Bellak TAT Analysis Blank and Haworth's analysis of defences) and structural analysis (with categories such as word-count, formulation, number of statements, prompts, hesitations, repetitions and increasing/ deepening projection). Possible cross-cultural influences were considered. Results suggest a deepening and broadening of adolescents' projections in the form of richer stories when utilising a DA technique of questioning.

Keywords: cross-cultural assessment — projection; culture-friendly — assessment; culture-fair — assessment; dynamic assessment — projection; projection; TAT; thematic apperception

Storytelling is strongly associated with children. Brandell (2000:1) expresses fascination with the creative ways children give narrative form to their lives, asserting that "... few adolescents and even fewer children express interest in discussing their wishes or intrapsychic conflicts, nor are most very receptive to this idea".

Sunderland (2004) thinks children's perception of their reality finds more complete representation through storytelling than direct statement. Cramer (2004, p. 6) notes new interest by psychology in storytelling because of its dissatisfaction with self-report pen-and-paper questionnaires on own psychological functioning, and views the Thematic Apperception Test (TAT) as "a particular kind of storytelling". Various authors (e.g. Jenkins, 2008; Sunderland, 2004; Teglasi, 2001; Brandell, 2000) recognise the value of stories in assessment and therapy. Bellak and Abrams (1997, p. 3) postulate that

... pictures that are not obviously similar to the individual being tested may help the individual to feel "freer" to express deeper feelings about the individual's internal identity.

Projection plates have been researched in more than a thousand psychological studies (Cramer, 2004).

Numerous pitfalls in exploring the individual psyche through projections are perceived, e.g. using leading questions, differences in administering the instrument, cross-cultural influences (Grieve, 2003; Kaufman & Kaufman, 2001; Gregory, 2000), and also questionable trustworthiness of interpretations through lack of a uniform interpretation system (Jenkins, 2008; Teglasi, 2001).

Psychologists need to accommodate all cultures in processes of assessment and interpreting clients' responses. Cross-cultural assessment (CCA) causes uncertainty, is difficult to conduct and requires special reflection to ensure appropriate interpretation (Moletsane, 2004). Moletsane questions the validity and reliability of decisions about individuals that are based on techniques developed elsewhere without considering their unique culture and context within their base country. In the same vein, Van Ommen (2005) pronounces psychometry has a history of standing accused of bias in using instruments that represent only the culture and class dominant at the time of their development. The impact of meta-stereotypes on CCA is also unavoidable. Finchilescu (2005, p. 465) explains meta-stereotypes as "the stereotypes that members of a group believe that members of an out-group hold of them", remarking that meta-stereotyping leads to emotional and behavioural consequences — a sure reason to explore the possibilities of client-friendly procedures when using projection techniques in CCA. Recognising the limited empirical certainty about validity and cultural applicability of tests used in the country and the paucity of local empirical research regarding test bias, the South African Professional Board of Psychology urges psychologists to "address the development and adaptation of culturally appropriate measures as a matter of great urgency" (HPCSA, 2005, p. 1).

In South Africa, we face various challenges concerning the effective eliciting of projections from youthful clients who appear unable or reluctant to respond richly within the standard projection procedure originally constructed by Murray (1943). Challenges include mode of administration and valid interpretation that meets the 'objectivity' criterion. Objectivity is defined as "the degree to which a test is immune to the subjective biases of the person administering it" (Stuart-Hamilton, 1996, p. 169). The ideal of 'objectivity' in using projection plates, whilst eliciting the most meaningful projections possible in a client-friendly manner, touches on the debate surrounding positivism and post-modernism in assessment. Positivism stipulates that only the observable and measurable is fit for study (Stuart-Hamilton, 1996). Post-modernism acknowledges multiple truths and the issue is then, "which truths are being allowed to be voiced? How, why and what are their effects upon people?" (Johnson & Cassell, 2001, pp. 125-127). Regarding projection, the paradigmatic tension concerns a desire to elicit uncontaminated projections, yet refrain from 'measuring' the client 'clinically and objectively'.

Dynamic assessment (DA) theory raises possibilities of unlocking also the projection potential of young clients. DA is grounded in Vygotsky's concept, Zone of Proximal Development, which Feuerstein incorporated in a radically new approach to assessment (Lauchlan & Elliot, 2001; Archer, Rossouw, Lomofsky, & Oliver, 1999), to accommodate sociocultural factors in cognitive development and learning potential (Hasson & Joffe, 2007; Shamir, Tzuriel, & Rozen, 2006; Human-Vogel, 2004; Tzuriel, 2000). Learning potential theory is "based on the assumption that potential may reside in learners, a potential that may remain untapped if the learner is assessed in a conventional manner" (Murphy & Maree, 2006, p. 169). Kaniel (2001) defines learning potential as the inherent possibilities a learner possesses to achieve success in the act of learning. Contrary to focusing exclusively on achievement as in static assessment, the ability to learn from mediation during the DA interaction is acknowledged (Hasson & Joffe, 2007; Van Eeden & De Beer, 2001). Without compromising assessment validity, dynamic assessors yet allow themselves some flexibility in their attempts to find forms of support which will assist learners to improve their performance (Bouwer, 2005).

Applied to projection, Kaniel's (2001) definition of learning potential could be rephrased to read, 'Projection potential refers to the possibilities a person possesses to create and express personal meanings during the act of projection'. Success in this regard may encompass the content of projections, and/or connections, explanations or elucidation of the projection process, and/or anticipation of the conclusion of projected stories.

In assessing learning potential, mediation could involve repeating information, focusing

attention, directing the learner's analysis of questions or information, actually giving direction, offering suggestions, additional information, description, demonstration, feedback, and modifying the task, which includes increasing and decreasing task complexity (Bouwer, 2005). Adaptation of mediation for projection could then include repeating the assessee's words/phrases, focusing attention on the projection plate by tapping or staring at it to suggest contemplating the picture, focusing the assessee's own analysis by using utterances such as 'OK?/... And?', providing non-directive prompts through questions, e.g. '... And then?', 'What led to this?' 'How will it end?', probing non-directively for more information and providing feedback on the act of projection (obviously not content) after each story.

The purpose of our research was to explore a DA technique of questioning when presenting projection plates to unleash adolescents' projection potential and, secondly, to accommodate the possible influence of a cross-cultural assessor-client situation on projections and their interpretation. The subfocus was considered pertinent in light of the many theories emphasising relevance of assessees' wider sociocultural context (Elliott, 2000; Lauchlan & Elliot, 2001; Tzuriel, 2000) and advocating flexible use of projection plates (Elliott, 2000).

The primary research question was: How does the use of a DA technique of questioning during the administration of projection plates influence adolescents' responses? Additional questions were:

- How appropriate is a procedure of dynamic questioning for the use of projection plates with adolescents?
- How can the construct of dynamic questioning be reconciled with the standard psychometric procedure, to elicit richer projection stories from adolescents?
- What contribution, if any, can dynamic questioning make to promote culture-friendliness in projection test administration and interpretation with adolescents?

THE RESEARCH

Research framework

We were constantly aware of operating in terms of two orientations to assessment and research, generally considered irreconcilable: positivism and post-modern interpretivism. Figure 1 indicates how positivist and interpretivist lenses were applied during data collection and data-analysis.

	POSITIVIST ASSESSMENT	INTERPRETIVIST ASSESSMENT
Data collection	 Static assessment Structured questioning/standardised procedure TAT-Plate 1 	 Dynamic assessment Process of mediation and questioning TAT-Plate 2 and 4 self-selected, non-standard plates
Data-analysis	- Interpretation in accordance with Bellak's TAT Analysis Blank, Analysis Sheet for use with the Bellak TAT Blank and Haworth-form - Structural analysis according to set Criteria	Interpretivist Interpretation (responses clarified with participants) Social constructivist interpretation (interpretations clarified with professional peers)

Figure 1. Research framework: Utilisation of positivist and interpretivist lenses

Figure 1 shows the process recognised the paradigms as separate but linked, to obtain 'richer', uncontaminated projection material and interpretations. In carefully adhering to standardised procedure, even in conducting the DA technique of questioning, data collection was essentially positivist. Data analysis was predominantly interpretivist, although also containing some positivist components.

Data collection

A multiple case-study was conducted with three participants, aged 13–19 years, who had come themselves or were referred by their parents for psychological intervention (pseudonyms are used): Ally, an 18 year-old, Tswana-speaking girl who withdrew from her social environment and had an eating disorder; Tina, a 13 year-old, English-speaking girl whose mother suspected emotional factors caused her fluctuating academic performance; and Ketswa, a 15 year-old boy with home language Sepedi/Tswana, whose emotional, academic and physical decline impeded optimal functioning. The assessor was Afrikaans-speaking. All assessments were conducted in English. Cultural sensitivity featured in the assessor's acknowledgement of possible cultural assessor-client differences that could impact on the interactive process of assessment and interpretation of the projective responses.

Instructions for TAT-Plate 1

The Murray-instruction (Murray, 1971:6):

"This is a story-telling exercise (substitution, for Murray's test). I have some pictures here that I'm going to show you, and for each picture I want you to make up a story. Tell what happened before, and what is happening now. Say what the people are feeling and thinking and how it will come out. You can make up any kind of story you please. Do you understand? Well, then, here's the first picture. You have five minutes to make up a story. See how well you can do."

Mediation after TAT-Plate 1

"With the second card I'm going to try something different. Did you see that, while you were telling the story, I nodded my head, I said *Uh-hu*, *Mmm*, *OK*, *And? And then?* Sometimes I repeated a word or phrase you used. The reason why I did this was to encourage you to tell your story in the best way possible, so that you could create a story with as much possible information that you could give. This also means I was encouraging you to tell a story with a real outcome, and also to tell what had led up to the situation in the picture. You must try to give AS MUCH INFORMATION as you can. So, with the second card I'll explain to you *why* I say or do something. Would that be OK? And after that, we'll do the rest of the cards."

Mediation during TAT-Plate 2

Explanations following verbal or non-verbal input from the assessor were in the style of:

- "When I say, *Uh-hu/Mmm/And?/And then?* or when I nod, it means, 'Tell me more/I would like to know more about your interesting story/I would like to hear more/I would like you to tell me more'."
- "When I say, OK, I mean 'Thank you, carry on with your story'."
- "When I repeat your words, it means 'I would love you to continue'."

Figure 2. Murray-format of instructions and mediational procedure followed after Plate 1 and during Plate 2

The projection plates consisted of TAT Plates 1 and 2 (Murray, 1943), and four non-standard plates, selected for their success rate in eliciting projections from adolescents during experimentation with plates assumed to be culture-friendly, at the post-graduate training facility, University of Pretoria:

- Black-and-white photograph legs and feet of three children sitting under an umbrella, no faces visible
- Watercolour people apparently variously at play on a playground/field, no recognisable faces/expressions
- Watercolour people engaged in various activities in an undefined space, a cooking fire in the foreground, no recognisable faces/expressions
- colour photograph dramatically fissured bark of a tree.

A pilot study was conducted with three adolescents to fine-tune the DA mode of questioning. Data collection comprised a three-phase administration of the projection plates, observations, fieldnotes and reflective journaling (see Figure 2). Phase One, to obtain baseline data, introduced TAT Plate 1 in accordance with Murray's (1971) standard instructions, i.e. with only the permitted responses and prompts. Phase Two was given up to mediation, the assessor explaining the purpose of her verbal and non-verbal behaviour and administering TAT Plate 2, mediationally demonstrating and emphasising her actions. In Phase Three, Plates 3 – 6 were administered, performing the behaviours mediated in Phase Two without any explicit intervention.

Data analysis

The responses were transcribed verbatim and checked against video-recordings to verify the assessor's observations, fieldnotes and reflections. Acknowledging the uniqueness of projection, each participant's data were analysed separately. Data analysis comprised projection analysis and structural analysis.

The projection analysis was performed in accordance with Bellak's *TAT Analysis Blank*, and *Analysis Sheet for use with the Bellak TAT Blank* (Bellak & Abrams, 1997), as well as an adaptation of Haworth's form for identification of defense mechanisms in the *Children's Apperception Test* (CAT) (Haworth, 1963). The data were first subjected to ten categories of analysis regarding main theme, main hero, hero's main needs, worldview, interpersonal object-relations, significant conflicts, nature of anxieties, main defenses against conflicts and fears, functioning of superego and integration of ego (Bellak & Abrams, 1997). Next, the main theme was unpacked through a multi-level analysis covering the descriptive, interpretive, diagnostic, symbolic and elaborative levels (Bellak & Abrams, 1997).

The structural analysis was performed in respect of twelve categories, the results tabulated per participant and per phase:

- Volume of responses (verbal and non-verbal)
- Change of direction in the narrative where, how soon, how clear
- Number of prompts, including regular instructions and encouraging utterances increase/ decrease, effect on narratives
- General mood of projections
- Choice of words (formulation)
- Number of hesitations (compared with the severity of superego manifestations in the projection analysis)
- Number of repetitions (depending on context, includes stuttering)
- Number of statements per plate and/or per response-phase
- Number of explanations participants' self-initiated clarifications and responses to specific questions
- Length per statement number of words per question/prompt, to determine response pattern
- Increase/deepening of projective indications
- · Indications that the participant responded to specific words/actions/utterances of the assessor

FINDINGS

Ally: Content of projections

- a) Themes were deepened and extended. "Richer" stories.
- b) and c) Quicker penetration to deepseated meanings of main character.
- d) Deeper level of projective narration.
- e) View of figures in narratives changed commensurate with deeper and 'richer' projections through the figures.
- f) Experience of conflict changed from simple to more complex and profound.
- g) Fears intensified, more descriptions, → more information.
- h) More direct indications of defense mechanisms, but no increase/decrease of defense mechanisms.
- i) Severity of superego didn't manifest consistently.
- j) Stronger manifestations of ego-integration for Plates 1 and 2 where hero was regarded fairly competent → hero's levels of competence therefore declined, could imply stronger identification and less vigilance.

Structure of responses

- a) Number of words and volume of responses increased.
- b) Spontaneous changes of direction → generation of more data and projections.
- c) Fewer prompts required to elicit narratives.
- d) Mood of intense sombreness initially.
- e) Choice of words appeared consistent.
- Hesitations increased.
- g) Repetitions increased.
- h) Number of statements increased.
- i) No clarity obtained concerning the category explanations.
- i) Pattern of responses differed greater volume of responses per intervention, fewer prompts required per intervention.
- k) Projections deepened and intensified.

Tina: Content of projections

- a) Richer projections regarding main theme in some instances.
- b) Descriptions of main character increased.
- c) No definite development observed across phases concerning needs of main character.
- d) Worldview grew progressively in both range of meaning and number of projections.
- e) View of figures in narratives varied, no positive/negative pattern of influence.
- f) Significant conflicts increased.
- g) Nature of fears changed.
- h) Defense mechanisms increased.
- i) Extended silences before responding weren't noted, due to technique. No change in other manifestations of superego.
- j) Ego-integration didn't differ much.

Structure of responses

- a) Volume of responses increased.
- b) No differences observed regarding change of direction in narratives.
- c) Marked decline in number of prompts.
- d) No change in mood of narratives.
- e) Choice of words appeared consistent excepting one instance of increased emotion, possibly triggered by plate.
- f) Hesitations increased, then decreased again.
- g) No pattern of repetitions.
- h) Number of statements increased slightly, but no marked difference.
- i) No difference in number of explanations.
- j) Pattern of responses after training phase differed: initially responded copiously to instruction, but upon further prompting virtually declined to respond.

Ketswa: Content of projections

- a) Changes occurred in main theme, perhaps influenced by Ketswa's immediate circumstances.
- b) Descriptions of main character changed, from 'socially acceptable' to 'victim'.
- c) Needs of main character deepened from more 'concrete' needs to variety of needs.
- d) Presentation of his worldview became more intense, descriptive, emotional.
- e) View of figures in narratives varied, no pattern of influence.
- f) Significant conflicts increased and intensified.
- g) Increase of fears after Plate 2, distinct change of course.
- h) No difference regarding defense mechanisms.
- i) No difference regarding ego-integration.

Structure of responses

- Volume of responses decreased, but responses became more focused. Unclear whether specific plates may have contributed to this.
- b) No differences regarding change of direction in narratives.
- c) Marked decline in number of prompts.
- d) Mood of narratives and e) choice of words appeared consistent.
- f) Hesitations increased, then decreased. Unclear whether attributable to technique of questioning.
- g) Pattern of repetitions varied.
- Number of statements initially increased sharply, decreased in equal measure, apparently influenced by technique of questioning.
- i) Number of explanations decreased, seemingly in proportion to degree of engagement with plates.
- Pattern of responses differed more responses per prompt, implying more condensed build-up of responses through direct instructions.

Figure 3. Differences in responses to Plate 1 (standard procedure) and Plates 3-6 (DA mode of questioning)

Findings were derived from intra-comparison (per participant) and inter-comparison (per phase) of the projection and structural analyses. Checking against literature on projection testing, DA and culture sensitivity, the findings were synthesised to identify possible effect indicators of the dynamic mode of questioning in administering projection plates to adolescents. Figure 3 describes differences between Projection 1 and Projections 3–6.

The results summarised in Figure 3 suggest various forms of effect, in both the content and structure of projections. With Ally, consistent deepening of her projections appeared prominent. Increasing depth occurred especially in main themes, meanings ascribed to main characters, level of projective narrative, conflicts and fears. Increasing depth also seemed reflected in structural components of her responses. Both analyses suggest influence of the DA technique in the form of steady development of projection potential. Tina's results, by contrast, showed fluctuations, although these do not anywhere appear to signify a negative influence. With Ketswa, deepening projection was clearly observable, his narratives becoming increasingly focused. Although some categories in the structural analysis confirmed a relationship between the linguistic-cum-narrative structure and increased projection, development in Ketswa's projections was not consistently reflected in structural changes, suggesting that considerations such as volume of response do not necessarily reflect projection and that even rejecting a plate may load onto rich narrative.

Acknowledging the uniqueness of response patterns in projection, Figure 3 yet indicates some general tendencies: lessening wariness, or growing confidence, to engage more fully in narration (Ally and Ketswa); increasing and more profound description of main characters (all participants); greater complexity and intensity of conflicts; more description and intensity regarding fears; and more intense/emotional/meaningful worldviews. Overall, the DA technique seemingly contributed to actualise projection potential in increased volume of responses (also per interaction) and a decline in number of probes.

Table 1 shows participants' responses seemingly influenced by DA. With Ally, 82% of the set

Table 1.	Indications of influence of a DA technique of questioning on participants' responses to the
	projection plates

Categories of analysis	Ally	Tina	Ketswa
Projective analysis			
a) Main theme	✓	?	✓?
b) Main character	✓	✓	✓
c) Primary needs (main character)	✓	?	✓
d) Worldview	✓	✓	✓
e) View of figures in narratives	✓	X	?
f) Significant conflicts	✓	✓	✓
g) Nature of fears	✓	✓	✓
h) Defense mechanisms	?	✓	X
i) Manifestations of superego	X	?	?
j) Ego-integration	✓	X	X
Structural analysis			
a) Volume of responses	✓	✓	✓
b) Change of course	✓	X	X
c) Decline of prompts	✓	✓	✓
d) Mood	✓	X	X
e) Choice of words	X	X	X
f) Hesitations	✓	?	√ ?
g) Repetitions	✓	X	X
h) Number of statements	✓	?	✓
i) Explanations	?	X	✓
j) Response volume per input	✓	✓	✓
k) Increase/deepening of projections	✓	✓	✓
Analytical questioning	✓	✓	✓
Cultural indications	Plate 5; 6		Plate 4; 5; 6

Key:

- ✓ Applying a DA technique of questioning seemingly influenced the outcome
- ? Influence of a DA technique of questioning is uncertain. No decisive proof
- X Applying a DA technique of questioning seemingly didn't influence the outcome
- ✓? The DA technique of questioning seemingly influenced the outcome, but other factors could also have contributed

categories appear influenced, suggesting the procedure was highly effective. With Tina, influence is inferred for 43.5% of the categories. A further 21.7% indicate a possible, though inconclusive, influence. Judging by gains in projection, however, the procedure yet seems suitable for Tina. With Ketswa, 65.2% of categories appear influenced by the procedure, suggesting it was also appropriate for him.

The first research subquestion, addressing the appropriateness of the procedure, taps into the findings above, which suggest that the DA technique of questioning on projection plates was indeed appropriate for adolescents. The increase in the participants' volume of responses generally and per input of the assessor, the decrease in the prompts and, especially, the increase and/or greater depth of projections support the conclusion. Murray (1971) sets the average of children's projections at 150 words and Arinow, Weiss, and Reznikoff (2001) at 100 words. All the participants exceeded these counts, which appears further confirmation.

The second subquestion was: How can the construct of dynamic questioning and prescribed psychometric procedures be reconciled to elicit richer projection stories from adolescents? Increase and deepening of all participants' projections occurred in response to a carefully structured process of dynamic questioning, meeting the stringent demands of standard psychometric procedure. To avoid directive influences, questions in DA mode were firstly rigorously piloted. Secondly, TAT Plate 2 was administered mediationally and those responses were not analysed or interpreted. Thirdly, the Murray-instruction was supplemented only with non-directive, open questions focused purely

on the assessee's narrative, subscribing to the emphasis on non-leading, open questioning in the literature on projective assessment (Arinow et al., 2001).

The third research subquestion looked at the contribution of dynamic questioning to promote culture-friendliness in administering and interpreting projection tests with adolescents. The mediational phase involving explanations by the assessor about her behaviour and meaning attributions, appeared to address unspoken questions and uncertainty experienced by adolescents from a language and culture differing from hers. The participants all engaged spontaneously with the projection task and seemingly tried their best ("best" being qualified and quantified from Figure 3 and Table 1), which could be taken as a possible reflection of the supportive, culture-friendly effect of the technique. Ally remarked, "All the pictures had the same story", noting how her stories corresponded, and Ketswa expressed appreciation when he experienced the assessor was "really listening" to him. Such comments may be taken to indicate their trust in the quality of the social interaction of the assessment situation. Ally and Ketswa put effort into giving accurate descriptions and qualified statements without prompting. The effect of culture-friendliness was therefore possibly achieved more strongly by the procedure itself than the particular projection plates. However, in analysing and interpreting the projections, much effort went into examining the impact of possibly culture-sensitive elements. The researcher was more sensitised to note cultural references in the participants' responses and could understand Ketswa's cultural narratives as being indications of tradition and cultural identity.

LIMITATIONS OF THE RESEARCH

The main limitation of the study is that it involved only three participants, attending the same school, which means the findings are not generalisable. However, the case-study design facilitates intensive exploration of procedure and rich analysis and description of data.

The effect of the DA technique on administering the projection media was qualified by the (deliberately selected) CCA situation. The assessor's cultural background and home language differed from all the participants. She was not deeply familiar with their life situations, *inter alia* to what extent cultural background played a role in their viewpoints, and was unfamiliar with the home language of two participants. This could possibly have created some bias, although such situations are controlled for within a post-modern epistemology through a reflective stance. In this study, data collection and interpretation were monitored through fieldnotes, reflective journaling and reflective discussion with colleagues familiar with the language-specific cultures of the participants.

A rather serious limitation is the lack of comparative data. Following the standard Murray procedure (1971) for all plates with a control group, would certainly have contributed better understanding of the influence of the DA technique of questioning.

DISCUSSION

Notwithstanding the limitations noted above, information of some value has possibly emerged in the quest for a solution to the challenge of eliciting projections from adolescents in CCA. Whilst projection is not an exclusively context-bound phenomenon and generally occurs irrespective of cultural specificity, we find that rigid administration generally yields poor responses from culturally different clients. Supporting clients through non-directive promptings to voice their associations apparently did not interfere with the unconscious content being solicited. Although the sample was woefully small, it is methodologically valid to argue that case-studies allow richer depth in studying mental processes than large 'objective' analyses. Balancing or at least acknowledging any element of subjective voice, that could have come through during the analysis of the findings, was of course vital. Feuerstein pioneered mediated interventions for cognitive deficits and assessment of culturally different children. We used DA to actualise projection potential in CCA situations. As this research did not include a mono-cultural situation, that could be a research option in the future.

The profound question requiring ongoing research and debate is paradigmatic by nature. It concerns the tension between assessment from the positivist and post-modern perspectives. What is the effect of a DA mode of questioning on the validity of the projection elicitation process, and of

projection itself? Have the results perhaps contaminated the construct of projection in terms of its original rationale? So — how 'welcome' are the results of this study actually?

The greatest value of the research was possibly for the participants themselves — the adolescents, their immediate families and the assessor. The relationship each time evolved quickly into a co-operative working alliance, and therapy seemed to have positive effect relatively quickly. During the first session post-assessment, Ally of her own accord actually summarised the benefits she had experienced from the assessment, mentioning how her feelings were "clarified" and this enabled her to move forward.

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