

# A Characterization of Gestational Carriers Using the Thematic Apperception Test

Mary P. Riddle, Ph.D.  
The Pennsylvania State University

## INTRODUCTION AND BACKGROUND

A number of studies have reported on various objective personality measures used to assess gestational carriers (GCs) (4, 5, 10, 13, 18), but the MMPI-2 and the PAI have become the most widely utilized objective measures used in the psychological screening of GC candidates.

Recent studies seeking to create norms for this population using standardized objective personality tests have concluded that GCs show a consistent tendency to underreport and deny problems as well as to attempt to portray themselves in an overly favorable light (defensiveness) (14, 18).

Projective assessment techniques such as the Thematic Apperception Test (TAT) are thought to bypass typical psychological defenses, but at present they are not routinely utilized in screening potential GC candidates.

A handful of studies have reported on projective measures and GCs (4,7), but none have reported on TAT data that has been scoring using validated scoring systems in order to characterize GCs or reported on the utility of including projective measures in the psychological screening of GCs.

## OBJECTIVE

This study investigates the utility of incorporating a projective assessment measure designed to bypass psychological defenses typically seen on objective personality measures used to screen GCs. Given the difficulties of interpreting defensive personality profile results, this study seeks to determine whether including a projective measure in conjunction with an objective measure will aid in decision-making regarding psychological appropriateness of GC candidates.

## METHODS

This study was designated as exempt by the IRB of The Pennsylvania State University.

This study was a retrospective chart review of GC candidates (n = 39) seen in private practice who had been administered a brief protocol of the TAT (Cards 1, 2, 3GF, and 13MF) as part of their psychological screening.

TAT protocols were scored using 3 different standardized scoring systems for the purpose of this research study. Current scores presented here did not impact acceptance or rejection of current sample. Clinical decisions on GCs were made at the time of their evaluation.

Scoring systems used were Rosenzweig and Fleming's Apperceptive Norms (17), Eron's Rating Scales for Emotional Tone and Outcome (8), and Fine's Scoring Scheme for the TAT (15). Scoring systems were selected based on their objectivity in order to score TAT responses in a standardized way. These systems also had high inter-rater reliability and none required subjective interpretations of content.

Scores of women Accepted as GCs (n = 31) were compared to Norms published for women for both the Apperceptive Norms and the Rating Scales for Emotional Tone and Outcome. Summary scores were calculated for Fine's Scoring Scheme for the TAT and comparisons were made within the sample between women Accepted to be GCs (n=31) and women who were Not Accepted (n = 8).

### TAT CARDS USED IN GC PROTOCOL:

**CARD 1:** Shows a young boy sitting at a table with a violin placed in front of him. It is thought to depict self-image, conflicts between autonomy and compliance with authority, and relationships with parents and parental figures (2,11).

**CARD 2:** This card depicts a young girl holding a book, a man working in the field and a woman leaning against a tree. Responses on this card are thought to reflect family dynamics (2).

**CARD 3GF:** This card shows a woman leaning against a doorway with her head in her hands. She is slightly slumped over. Responses on this card typically reflect depression and loss (2, 11).

**CARD 13MF:** A man stands in the foreground with his arm covering his face. In the background a woman lies in a bed. Common themes involve illicit sexual activity (2,11).

## RESULTS

### APPERCEPTIVE NORMS

Rosenzweig and Fleming's Apperceptive Norms (17) look at common responses given by normal men and women. Cards are endorsed for human figures, objects, and story content (problems and outcomes.)

**Card 1:** GCs endorsed that the boy who resists playing the violin has his desires frustrated and practices at a significantly lower rate than the normative sample (p < .001).

**Card 2:** When compared to Norms, significantly more GCs note that the woman in the card is pregnant (p < .001) and note contentment in her state. GCs were also more likely to note the books that the girl is carrying (p < .05). The GCs also endorsed her desire to leave the farm at a significantly lower rate (p < .001) than the normative sample.

**Card 3GF:** GCs reported the woman's ability to recover from the grief she is experiencing at a significantly lower rate (p < .001) than the normative sample.

**Card 13MF:** GCs were less likely to endorse illicit sexual activity (p < .05) and more likely to see the people in the card as a traditional husband and wife. They were also more likely to see the woman as sleeping than decreased (p < .001).

Table 1: Comparison of Apperceptive Norms using chi-square analysis  
Frequencies by Percentage of Norms (n=60; mean age = 27.5, age range = 20 – 40 yrs.) to GCs (n = 31; mean age = 31, age range = 23 – 42 yrs.)

CARD 1	NORMS (%)	GCs (%)
Violin noted	94	69***
Boy's desire – frustrated – he practices	76	36***
CARD 2	NORMS (%)	GCs (%)
Pregnant	20	67***
Books noted	30	44*
Girl wants to leave the farm	56	23***
p < .05* p < .01** p < .001***		
CARD 3GF	NORMS (%)	GCs (%)
She will recover from grief in time	64	13***
CARD 13MF	NORMS (%)	GCs (%)
Illicit sexual partner (man or woman)	46	27*
Woman dead	54	30**
Woman sleeping	14	50***
After sex has regrets	53	17*
p < .05* p < .01** p < .001***		

### EMOTIONAL TONE AND OUTCOME

**Emotional Tone**  
Mean scores for Accepted GCs (n = 31) were compared to normative data (8) which included female college students (n = 50). Rating Scales for Emotional Tone of TAT Stories are scored as follows: -2 (Very Sad); -1 (Sad); 0 (Neutral); +1 (Happy); +2 (Very Happy). GCs endorsed themes that were significantly sadder than the normative sample on a number of cards, most significantly Card 1, which typically reflects self-image and a need for achievement.

Table 2: Comparisons on Emotional Tone using t-test analyses

Card	Means	
	Norms (n=50)	GCs (n=31)
Card 1	-.48	-.87***
Card 2	-.46	-.39
Card 3GF	-1.48	-1.13*
Card 13MF	-1.82	-1.07***
p < .05* p < .001***		

### FINE'S SCORING SYSTEM FOR THE TAT

#### Reuben Fine's Scoring System for the TAT

Only manifest content is scored using 36 categories of feelings that are marked as either present or absent. Outcomes are categorized as Favorable, Unfavorable and Indeterminate and scored from the point of view of the hero.

Summary scores of emotion are presented in Table 4 for Accepted GCs. Only the top 3 emotions endorsed are presented.

Table 4: Summary of Emotions (top 3 emotions endorsed by GCs)

Card	Gestational Carriers		Card 3GF (n=28)	Gestational Carriers	
	n	%		n	%
Card 1 (n=31)	19	61.3	Depression (sadness)	19	76
Inferiority (inadequate)	17	54.8	Pain (hurt, tired, sick)	9	36
Depression (sadness)	14	45.2	Death	8	32
Frustration					
Card 2 (n=31)	15	48.4	Card 13MF (n=30)	16	53.3
Effort (hard work)	13	41.9	Depression (sadness)	11	36.7
Peace (contentment / satisfaction)	12	38.7	Pain (tired, sick)	9	30
Depression (sadness)			Death		

## RESULTS

### Accepted vs. Not Accepted.

Comparisons were made within the sample between GCs who were Accepted (n = 31) against those who were Not Accepted (n = 8) on Fine's Scoring Scheme for the TAT. Trends were noted.

Emotional range (# of emotions endorsed) was less for GCs who were Not Accepted in that fewer emotions were endorsed on Cards 2, 3GF, and 13MF by 50% or more.

Outcomes that were Unfavorable or Indeterminate were endorsed at a higher rate on all cards by GCs who were Not Accepted. Additionally, GCs were who Not Accepted were more likely to Reject a card than those women who were Accepted as GCs.

## DISCUSSION

On Card 1 of the TAT, Accepted GCs endorsed compliance with practicing the violin at a significantly lower rate (p < .001). This non-compliance is consistent with other studies finding that GCs may embrace non-traditional gender roles and unconventional life choices (14). More GCs noted that the woman in Card 2 is pregnant (p < .001) and noted contentment in her state, consistent with research suggesting that GCs embrace motherhood and enjoy pregnancy (3,6,12,16,19). Accepted GCs noted the schoolbooks that the girl is carrying in Card 2 at a higher rate (p < .05), which may reflect their need for achievement (3,6). GCs endorsed the girl's desire to leave the farm at a significantly lower rate (p < .001), which may reflect the importance they place on family. On Card 3GF, GCs endorsed the woman's ability to recover from her grief at a much lower rate than the normative sample (p < .001), suggestive of fragility in feelings of self-efficacy, which should be considered in the context of an evaluation. On 13MF, GCs were less likely to note the more typically endorsed illicit sexual activity (p < .05) and more likely to see the people in the card as a traditional husband and wife.

Sad themes endorsed for Emotional Tone and Outcome on Card 1 reflect low self-image which is consistent with previous research suggesting that GCs are lower in self-esteem (4). Additionally, GCs endorsed Inferiority at the highest rate on the summary scores of Fine's Scoring Scheme for the TAT.

When comparisons were made within the sample, GCs who were Not Accepted showed a restricted range of emotion and endorsed more outcomes that were Indeterminate or who Rejected the card.

In sum, the information gleaned from the Thematic Apperception Test (TAT) shares some similarities to previous research and makes a unique contribution as well. GCs' self-esteem may be lower or they may have greater levels of inferiority than other women, but see pregnancy as a time of contentment and pleasure. They may be fragile in their feelings of self-efficacy, but also view surrogacy as an opportunity for personal achievement. They may be somewhat unconventional in their approach to life and reject traditional gender roles. However, they also endorse a traditional worldview by endorsing themes of home and family. Findings of the present study suggest that projective measures can help validate findings on objective measures/clinical interview, and also contribute unique clinical information.

### LIMITATIONS:

TAT protocols were scored retrospectively. The collection of data on GCs who were Not Accepted was only recently begun making the present sample size is too small to generalize outside of this study. GCs who were Not Accepted were rejected for a number of reasons and not just for psychological reasons. Lastly, statistical analyses were based on the theoretical assumption that published norms represented the general population.

## REFERENCES

- American Society for Reproductive Medicine Practice Committee (2012). Recommendations for practices utilizing gestational carriers. An ASRM Practice Committee guideline. *Fertility and Sterility*, 97(5), 1301-1306.
- Baker, L. (1991). The TAT, CAT, and CAT-C: A Critical Look With Some Recommendations. *Open and Shut*.
- Byrne, E. (1994). "I wanted to be interesting": I wanted to be able to say "I've done something interesting with my life" Interviews with surrogate mothers in Britain. *Journal of Reproductive and Infant Psychology*, 12, 189-198.
- Borenstein, M., & Cooper, H. (2005). Characteristics of participants in a gestational carrier program. *Journal of Assisted Reproduction and Genetics*, 34(5), 305-307.
- Brown, G. S. & Nunn, K.M. (2002). Axis I and personality profiles of gestational surrogates. *Fertility and Sterility*, 77 (Suppl. 3), S18.
- Cosmick, C. & Blockman, L. J. (2005). Navigating rough waters: An overview of psychological aspects of surrogacy. *Journal of Social Issues*, 61(1), 21-43.
- Ellsworth, J. (1979). Who becomes a surrogate? Personality characteristics. In Joan Offman-Zuchberg (Ed.), *Gender in Transition: A New Frontier* (pp. 123-132). New York: Plenum Publishing Corporation.
- Eron, L.D., Terry, C., Calahan, B. (1985). The use of rating scales for emotional tone of TAT stories. *Journal of Consulting Psychology*, 14(5), 474-478.
- Frank, D. (1981). Psychiatric evaluation of women in a surrogate mother program. *American Journal of Psychiatry*, 138, 289-292.
- Frank, D. (1983). Reproductive freedom in the human reproduction field. *Journal of Consulting Psychology*, 17(4), 289-292.
- Janke, V., Marney, C., Lyall, E., McCullough, P., Coleman, S. (2003). Surrogacy: The experiences of surrogate mothers. *Human Reproduction*, 18(10), 2198-2204.
- Konikow, C.H. & Norman, M.B. (2005). Surrogate motherhood: Personality traits and satisfaction with service provision. *Psychological Reports*, 87, 607-620.
- Knox, G. C. & Gorington, S.N. (2011). Results of the Minnesota Multiphasic Personality Inventory-2 among gestational surrogate candidates. *International Journal of Gynecology and Obstetrics*, 130, 207-209.
- O'Neil, S. (2005). *Scoring Manual for Reuben Fine's Scoring Scheme for the TAT and Other Valid Practices*. In Jenkins, S.E. (Ed.) *A Handbook of Clinical Scoring Systems for Projective Assessment*. New York: John Wiley & Sons.
- Rosen, P. J. (1993). Maternity of Surrogate Mothers: Initial Findings. *American Journal of Psychiatry*, 140(3), 117-118.
- Rosenzweig, D. & Fleming, G. L. (1969). Apperceptive Norms for the Thematic Apperception Test. *Journal of Personality*, 17(4), 403-403.
- Sims, J.A., Thomas, K.M., Newport, C.J., Chen, S.H., & Pascale, C. (2013). Psychiatric properties and norms for the personality assessment in egg donors and gamete/corner carriers. *Journal of Personality Assessment*, 85(4), 492-499.
- van den Akker, O. (2005). Genetic and gestational surrogate mother: experience of surrogacy. *Journal of Reproductive and Infant Psychology*, 23(2), 145-161.