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## PROJECTION TESTS AND OVERT BEHAVIOR <sup>1)</sup>

BY

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### 1. THE PROBLEM

It is still a real problem if, and if so in what measure, projection tests give indications of the overt behavior of the subject. As Lindzey (9) has justly stated recently: "Available empirical evidence clearly indicates, that the assumed imperfect correlation between fantasied and overt behavior is warranted. However, at present we are far from an adequate formulation of the signs or cues that might permit specification from fantasy protocols alone of the behavioral tendencies that will secure overt expression as opposed to those that will not".

In practice a great number of possibilities present themselves: one time a projection test protocol gives fragments out of the earlier life's history which is no longer of actual interest, then again the content is a clear overcompensation of frustrated, unrealized, or in reality unrealizable wishes or ideals; sometimes the characters of friends or family are described, and then again the subject's own dynamic structure. Sometimes reflections of the actual situation or the day's activity appear, then again deeper lying structures, which the examiner thinks he can find in a projection protocol. This latter designation is, however, usually something that is only possible later when the protocol is compared with the detailed clinical and case-history data, and, however interesting this may be, we would rather have more certainty in the judgment of the test as such; in other words, a criterion with the help of which we could make out which of the different possibilities we have before us in a definite protocol we must judge.

The problem which we have outlined here is probably not only

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a problem of interpretation, but also of test construction and test instructions. Perhaps up to now we have not been following the best method with our insistence upon entirely free-imagination projection tests. Symonds (14) comes to a very pertinent conclusion (p. 205): "If a person works out his problems in overt behavior, he does not find it necessary to work them out in fantasy—and if he works them out in fantasy, he is not bound to express them in reality. It is for this reason that seldom were the characters in a person's stories replicas of the person himself in real life". He then distinguishes different levels upon which fantasy and behavior function but he fails to tell us how we must decide on which level we should interpret the content of a single protocol.

In general projection tests up to now have been very disappointing where prediction over the subject's overt behavior is concerned, or rather we lack up to now fast criteria which can guide us in this respect since no one will deny, that *sometimes* overt behavior comes to expression in projection protocols, and *often* it doesn't.

Symonds does come to the conclusion that one must look for inner dynamics in the fantasy material from Thematic Apperception Tests, "that is, by assuming that they are projections of trends within the individual and then attempting to understand them in the light of all the possible transformations and disguises by which an individual protects himself from the anxiety which facing his unacceptable drives would arouse" (p. 209).

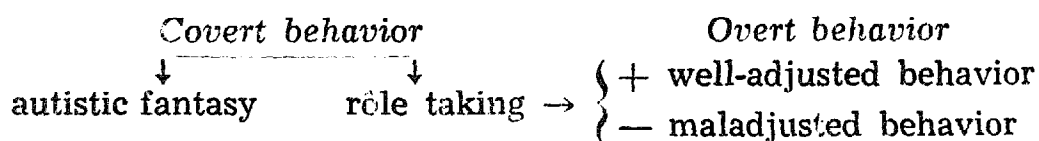
## 2. ROLE-TAKING AND SOCIAL ADJUSTMENT

In his unpublished thesis over the F.P.T. the Belgian Albert Collette makes the very just comment that the hero in the F.P.T.-protocols always behaves as an only child (1a). This is probably related to the fact that in our fantasy we are only concerned with ourselves; that the figures that live in our fantasy, such as those in our dreams, are also aspects of ourselves, or mostly nothing more than objects "to talk to", shadowy beings without the character of reality; and also that the assignment of rôles in our fantasy represents aspects of ourselves which furnish the dialectic necessary for all thinking, but which lack the degree of "adversité" that people from our own environment have, people from the hard reality, who help to determine our behavior

in the actual world. These figures out of our fantasy do not make "rôle-taking" necessary. They ask no empathy, no adjustment; without asking more, they satisfy our deepest tendencies and ideals if we wish; or they are the adequate correlates of our irrational anxieties and feelings of being menaced. However important this inner dialectic may be for the *interpretation* of overt behavior, an acquaintance with it does not always put us in a position to make *predictions* over overt behavior itself.

We can distinguish between two sorts of overt behavior: socially well-adjusted and socially maladjusted behavior. In so far as overt behavior is socially well-adjusted behavior, not individualistic behavior, but group-determined (or partner-determined) behavior is in the foreground. We can therefore say that overt behavior interests us, as clinical and industrial psychologists, in so far as it is not or not yet well-adjusted, i.e. in so far as it is still individualistic. Of course socially well-adjusted behavior remains "personal", but by individualistic behavior we mean here behavior in so far as it is under the influence of what Coutu (2) calls "the margin-of-error-in-rôle-taking" (p.396). Besides, in the overt well-adjusted behavior the idiosyncrasies are, as it were, hidden behind, or controlled by the rôle-taking ability of the individual.

We can also say that the overt behavior interests us especially in so far as it is a function of the privative mode of rôle taking. We can make the following scheme:



Here we see that maladjusted overt behavior is not a direct function of autistic fantasy, but of a failure in rôle-taking, of the margin-of-error-in-rôle-taking.

### 3. RÔLE TAKING IN THE *F.P.T.*

If there is any truth in this construction, we should be able to discern all sorts of things in relation to the maladjusted aspects of covert behavior by studying someone's *failure* in rôle-taking. We have tried to find out if this is possible via a projection test. In this case we must invite the subject, by special instructions, to assume a rôle-taking attitude instead of improvising freely over

a picture. For this purpose we used the Four Picture Test of Van Lennep (5, 6, 7). Instead of the usual instructions to make a story from the four given pictures, a number of arbitrarily chosen male subjects were asked to make a story with a female principal character <sup>2)</sup>. These instructions were chosen for several reasons.

From the statistical data available over the F.P.T. (Rümke, 12) we found that less than 1 % of our male subjects, when given the usual instructions, make a story spontaneously with a female principal figure. That this is only partly a function of the subject's sex appears from the fact that of the female subjects only 11 % made a story with a female principal figure. It seems therefore quite probable that the fact, that by far the most subjects make a story with a male principal figure, is also a function of the graphic stimulus of the F.P.T. In other words, the F.P.T., through nothing more than its graphic qualities, does not invite the spontaneous making of a story with a female principal figure. By giving the task of writing a story with a female principal figure, we force the subject to a psychic act which is relatively difficult and can only be solved by taking on a definite attitude, namely by transferring oneself to the rôle of a woman as hero of the story. It is perhaps possible to speak here of a true act of rôle-taking.

Actually what is asked of the subject is an act of "playing-at-a-rôle", in which implicit rôle-taking is implied. In his article: "Rôle-playing vs. rôle-taking" (3), Coutu says: "Playing-at involves an elementary form of rôle-taking, the verbalized fantasy by which the child learns how to take the rôle of another. Here the child both imaginatively and overtly pretends he is another person—not necessarily a particular other person, but often a stereotype of some functionary. Playing-at is "make believe" or "play acting". *Playing-at* a rôle is not necessarily *playing-at-being* another person; it may represent playing-at performing some socially prescribed function which he cannot actually perform since he cannot at his age occupy the appropriate social position; or it may even involve playing-at being a cow pony, machine-gun or airplane, with the appropriate vocalizations, sound or noises"

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<sup>2)</sup> In this study, we shall refer to these protocols as "special" F. P. T.

Perhaps another explicite rôle would also have been possible as the task set in our test, but for male subjects a woman is the most extremely "other". By requiring of our male subjects a female hero, we required thus an act of playing-at-a-rôle, at least if they were willing to fulfil this task. Since the F.P.T. requires that four pictures must be combined into one story, it is necessary that the hero be given all sorts of emotional, volutive, and cognitive functions which determine the thread of the story. Therefore, pictures in which the rôle of the woman is more or less determined by the graphic meaning are less suitable for this purpose.

Our assumption was that subjects who were able to write a story with a woman as principal figure and in which feminine emotional relations etcetera really originated in this woman, would have an easier emotional contact with others than the subjects who were not able to do so.

We also investigated the possibility, that the F.P.T. protocols with these new instructions would contain more information over the (maladjusted) overt behavior of the subject. The aspect of overt behavior chosen to verify this assumption was dependence and submissiveness. It was assumed, that, if the woman in the "special" F.P.T. protocol was domineering, the writer, more often than not, would be dependent and submissive in his daily behavior.

#### 4. EXPERIMENTS

##### a. *Method*

The *material* for this study consisted of the written F.P.T. protocols of 311 male subjects who were examined by the

TABLE 1

Distribution of Population according to age	
Years of age	No. cases
15 — 20	86
21 — 25	71
26 — 30	74
31 — 35	45
36 — 40	15
41 — 45	10
46 & older	10

"Netherlands Foundation for Industrial Psychology" (an institute for vocational guidance and personnel selection). By far the majority of these cases fell within the category of selection for special industrial functions. The educational level of the subjects varied from junior high school to university. The ages of the population were distributed as shown in the adjoining table.

The *instructions* given these cases were as follows. For those subjects who had already written the usual F.P.T. story earlier in the day (by far the majority in this case), the following was asked: "Do you still remember that you have had to write a story about four pictures?" This question was almost always answered in the affirmative. The instructions continued then: "Make a story now about the same four pictures, in which one of the ladies at the tennis court plays the main rôle" <sup>3</sup>).

If the subject could not remember the four pictures, he was permitted to see them again. In those cases in which no ordinary F.P.T. had been done, the above instructions were added to the usual instruction. Whether or not the "special" F.P.T. was preceded by the usual F.P.T. proved to have no influence on the results.

#### b. *Analysis of the Results*

From further study of the protocols collected in the manner described above it appeared that three groups of stories could be clearly differentiated, namely:

1. Stories in which a woman was consistently the principal figure, where she determined the course of action and gave the story a specifically feminine content (henceforth called "feminine stories" for short).

2. Stories in which a man was really consistently the principal figure while a woman appeared only as an extremely secondary figure or not at all (so-called "masculine stories").

3. Mixed stories in which it was not certain whether a man or woman was the principal figure, either because there was no really principal rôle, or because a man and a woman appeared as perfectly equal figures. For criteria see below.

These story-types were then compared with the subject's

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<sup>3</sup>) The fourth picture of the F. P. T. depicts a tennis court with players and spectators, two of whom are girls.

"affective contact" by which was understood his overt behavior during the examination in respect to the examiner, as the latter described this in his report over the examination. Thus the term "affective contact" as used here does not imply prediction, but is based purely upon observed behavior in respect to the examiners. Although "easy affective contact" is not exactly the same as "good social adjustment", we prefer to use the former term, since it points to behavior observable in the examination, whereas the latter is more of an inference.

It proved possible to establish fairly objective, usable directions for the rating of the stories. In general, the following standards were used as the basis of differentiation:

*Feminine stories* were characteristically those in which a female principal figure appeared consistently through the whole story, where the thoughts, adventures, feelings and experiences of the woman were more or less explicitly described, unless these experiences were named exclusively as being negative in respect to an actual male figure in the principal rôle and were responsible for his behavior. At the same time, the woman was mostly the center in the story, played a specifically feminine rôle within its framework, and was directly, actively involved in the development of events. It is striking, that Happy-End stories were mostly feminine stories.

In *masculine stories*, on the other hand, the female figure either did not appear at all, was present only in the beginning, or remained entirely in the background. Often only events were described which followed each other in a simple action plot, even though a woman played a secondary rôle in this plot. Often the female figure appeared only as the center of the thoughts of one or more men (for example: a boy dreams about the girl next door; or: two boys in love with the same girl quarrel over her at the tennis court). Also judged as masculine stories are those in which a woman is only causally or indirectly concerned in the plot, and finally also those stories which actually have a woman as principal character, but in which her rôle is explicitly of the sort that it could be played just as well by a male figure and would be even more acceptable in this form. It is noteworthy that Detective stories were almost always masculine stories.

A few examples may clarify these standards of judgment for feminine and masculine stories.

**EXAMPLES****A. *Feminine Story***

(Subj. 75856, male, 29yrs)

Marian had put the children to bed and wanted to tidy up a little in the bedroom where she and her husband slept. On entering she paused: the moonlight lent the spacious room something mysterious and also something hidden. She had a warm feeling of "my home is my castle" at which she yet smiled: oh well, let's be deliciously sentimental for once! Well, yes, being sentimental is of course nonsense, but she was a lucky person and she had a cosy evening in front of her too, for downstairs at the moment sat Charles with Tom his friend deep in talk, and in a moment she would go and sit with them, making a remark now and then, but chiefly listening and... enjoying herself. Her friends did not envy her for it, but she herself knew, that she was fond of evenings like this. They had got to know Tom last summer at the tennisclub, and that was how the friendship had begun. Just as she was drawing the curtains in the bedroom her eye fell on the opposite side of the street: it had begun to snow softly and a man stood with his collar turned up: old, lonely, poor. She was painfully touched, drew the curtains carefully and went pensively downstairs.

**B. *Masculine story***

(Subj. 75924, male, 20yrs)

***An Accident***

At a tennis club consisting of three ladies and three gentlemen there was an accident one day while a game was being played. To wit: one of the men who was playing with a lady against another lady and gentleman at a certain moment hit — by accident — the lady on the head with his tennis racket. The blow came down hard, and the lady was taken to the hospital. The young man to whom this happened is beside himself with anxiety. At night he cannot sleep, lies for hours staring at the ceiling and the strangest thoughts go through his head. That she will die, that she will be crippled for life, etc. Because of this he is unbearable at home. At the least thing that is said to him he flies up and snarls at everyone. At last he gets news — a week later — that the girl is recovering, and that he may go to visit her. Long before it is time for the visit he is waiting in front of the hospital. To make things worse it begins to rain. But he doesn't even feel it. Without a coat he stands there in the rain till the right time has come. He is madly happy!

In order to see wheter the judgment of stories according to the above mentioned standards would remain at all constant, a small sample of the total material was given to someone who had no further connection at all with the study, with the request to judge those stories acording to the given criteria. Indeed, by this method, 82 % of the stories were judged in entirely the same



manner, while the remaining 18 % consisted only of those stories which by one judge were placed in the masculine or feminine category, and by the other in the "mixed" group. Judgements of the same stories by the same judge after a period of six months rendered almost complete agreement.

### c. *Results*

In the 311 cases studied here it was indeed found that the "feminine stories" came preponderantly from subjects who had a good and easy affective contact, while the opposite proved to be true of the writers of "masculine stories".

After applying the *Yates* correction formula,  $X^2 = 34.6$ . The Null Hypothesis can thus be discarded at the 0.1 % level of confidence. Our first hypothesis is therefore confirmed by the experimental results.

We also investigated the possibility that in respect to age and educational level of the subjects differences might be found between the groups which would be related in any way to the criterion. This, however, proved not to be the case.

Our second assumption was that the protocols of the "special" F.P.T., especially of the so-called "masculine stories", should contain more data over overt behavior than those protocols written with the usual task. There are at the present time a great many indications that this is really the case, but research over this problem is still in progress, and we hope to be able to publish more detailed information on this subject later. Up to the present time we have studied in detail one of the aspects of overt behavior which comes to expression in the "special" F.P.T. This aspect is submissive, dependent behavior (lack of independence) in subjects which we have brought into relation with the degree of dominance of the woman appearing in the "special" F.P.T. The independence of the subjects was determined by us upon the basis of the reports of the examiners. In most of our cases it was explicitly stated by the examiner whether the subject made a dependent or independent impression, since this was considered an important factor in selection for industrial functions. These judgments were all clinical observations since there are no objective tests for this variable available here.

The supposition that dependent subjects write a "special"

F.P.T. in which the female figure plays a strongly dominant rôle, proved indeed to be true in our material, especially in the group of so-called masculine stories.

This fact is apparent in Table 2, which gives  $X^2$  and  $P$  for the relationship between these factors. When we consider the data over masculine and feminine stories apart (the groups "dominant  $\pm$ " and "dominant  $-$ " were considered together here, since otherwise the numbers would have been too small for statistical computations), it appears that, as we expected upon the basis of our hypothesis, in the masculine stories the degree of dependence in overt behavior was represented by the appearance of a more or less dominant female figure in the "special" F.P.T. story, while this proved not to be the case for the feminine stories.

TABLE 2

Independence of  $S$ , and dominance of woman in "special" F. P. T.-protocol  
( $N = 259$ )

	$X^2$	$P$
Whole Material:	31.45	$< 0.1\%$
"Masculine Stories" only:	16.51	$< 0.1\%$
"Feminine Stories" only:	1.29	$\pm 65\%$

## 5. DISCUSSION

From the fact that our hypotheses have been proven true by this study we shall be able to draw a few general conclusions in respect to the application of projection tests. By permitting a subject to be entirely free in exercising his imagination over a projection picture, we have not made it necessary for him to assume a rôle-taking attitude, but have allowed him to express himself within the dialectic of his more autistic train of thought. Up to now we lack criteria for interpreting these autistic trains of thought into terms of overt behavior. However, it is possible to present tasks in which the subject is forced to place himself in the rôle-taking attitude. For male subjects it is a question of playing-at-a-rôle, to think and to act from the standpoint of a female principal figure. The F.P.T. is a good stimulus for this, since less than 1 % of the male subjects spontaneously make stories with a female principal figure. For female subjects it is naturally another question. In order to study the same phenomena in female subjects, a feminine F.P.T. has been con-

structed<sup>4)</sup>, in which most female subjects make stories with a female principal figure, when given the usual, ordinary instructions. Female subjects have been studied upon the basis of this test with the instructions to make a story with a male principal figure.

These investigations have not been finished yet, but on the basis of a small material we found, that here too aspects of the overt behavior were significantly related to variables in the protocols. These findings will be reported more in detail in a later publication. We are of the opinion, that large-scale research should be done concerning the question whether projection tests with instructions which imply rôle-taking, procure more information over overt behavior than those given with the free instructions used up to the present time.

Meanwhile, it is interesting, that Sarbin and Farberow (13) have found in their experiments on the subject of age-regression in relation to self and rôle, that there is a highly probable relation between social adjustment and rôle-taking abilities.

Gough (4) has very justly remarked, that "the basis for individual sociality is social interaction, and this interaction is effective in so far as the individual can look upon himself as an object or can assume various rôles", while Cameron (1, p. 93) states: "the more effectively (an individual) is able to allow the attitudes and responses of others, which he predicts in symbolic rôle-taking, to influence his own reactions, the more competent he ought to be in social situation". These various statements lend considerable support to our point of view.

We admit that our criterion: the subjective judgments of the examiners during a psychological examination, is not very satisfactory one from an objective point of view, but in Holland we have no "objective" instruments for the measurement of

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<sup>4)</sup> This F. F. P. T. (Female Four Picture Test) consists of the following four drawings:

- I. Sitting room. A woman is bending over a cradle in which a baby can be seen. A small boy is sitting on the floor, playing with toys.
- II. Bedroom with old-fashioned furniture and a mirror.
- III. Lake in forest scenery where a female figure stand pondering.
- IV. Office. A male and a female figure are seated at desks talking with each other, while they are being watched by a second male figure from the background.

emotional adjustment. We suggest that this study might be duplicated in America where such instruments are available.

Also it remains to be seen, whether our findings are culturally determined and whether, if duplicated in America, the results would be similar. This is of special importance in so far as the results with the F.F.P.T. are concerned, because the culturally determined position of woman is so different in America and in Europe.

And it might be of interest to investigate how the different culturally determined characters, as Riesman worked them out in "The Lonely Crowd" (11) behave in regard to rôle-taking in the F.P.T. protocols with special instructions.

## 6. SUMMARY

In this article we have discussed the problem of the lack of sufficient criteria to permit a judgement on the basis of projection test protocols concerning whether a definite content in related to the subject's overt behavior.

Two sorts of overt behavior have been distinguished—socially well-adjusted behavior and socially maladjusted behavior. The former was brought into relation with general ability at rôle-taking, the latter with margin-of-error-in-rôle-taking (Coutu).

By using special instructions for the Four Picture Test (namely, making a story with a female principal figure), male subjects were forced to use their rôle-taking ability.

For our population there is evidence that:

1. Males with an easy affective contact, in so far as observed by the examiners of the "Netherlands Foundation for Industrial Psychology", can complete this task significantly better than males with a poor affective contact.

2. For the latter, the appearance of a dominant woman in the special F.P.T. protocol is significantly related to a submissive, dependent over behavior, as far as observed during the psychological examination.

There are indications, that still many other features of overt behavior appear in the stories of the unsuccessful rôle-takers. We hope to publish more material concerning this question later.

## RÉSUMÉ

Le présent article traite l'absence des critères qui permettraient de juger, en partant du protocole d'un test de projection, s'il existe un rapport entre le contenu déterminé d'un récit et la conduite manifeste du sujet.

On distingue deux formes de comportement manifeste: le comportement social adapté et le comportement social mal adapté. On rattache le premier à une aptitude générale pour „rôle-taking” (la faculté de se mettre à la place d'un autre); le second à la „margin-of-error-in-rôle-taking” (Coutu) (le degré d'insuccès en se mettant à la place d'un autre).

En exigeant des sujets d'écrire une histoire dont le personnage principal sera une femme ou une jeune fille, on a obligé des sujets du sexe masculin à exercer leur faculté de „rôle-taking”. L'examen du matériel obtenu a démontré:

1. que les hommes dont le contact affectif est aisé s'acquittent remarquablement mieux de cette tâche que les hommes avec qui un contact affectif s'établit difficilement, pour autant que le fait a pu être constaté par les examinateurs de la „Fondation Hollandaise pour la Psychotechnique”;

2. que chez les sujets appartenant à la seconde catégorie, l'apparition d'une femme dominatrice dans le protocole à l'instruction précité, correspond significativement à un comportement manifeste influençable et dépendant, pour autant qu'il a été constaté au cours de l'examen psychologique.

Il est dénoté que nombre d'autres aspects du comportement manifeste se révèlent dans les histoires écrites par les sujets qui ne parviennent pas à exécuter cette tâche de „rôle-taking”. Les auteurs espèrent publier ultérieurement des données plus élaborées touchant cette question.

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