The Relationship between Psychological Androgyny and Performance on Piagetian Spatial Tasks in College Women

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Abstract

Past research has shown that males typically perform better than females on Piagetian spatial tasks. Other studies indicate that when a task is labelled "masculine" or "feminine", subjects tend to perform better in the "sex-appropriate" condition. This study presented the Piagetian spatial tasks in the traditional fashion as well as in a feminine typed condition. Sex-role identity rather than gender was examined in relation to spatial skills. Ninety college women completed the Bem Sex Role Inventory; it was hypothesized that the androgenous typed females would perform equally well in both the masculine and the feminine typed conditions. The rules of horizontality and verticality were explicitly stated upon completion of the first set of tasks to determine whether those subjects who had failed, would then learn and apply the information in subsequent tasks. Results suggest that androgenous individuals were better able to apply the given rules in subsequent tasks.

Male vs Female Performance on Spatial Tasks

Since Maccoby's work (1966) revealing a disparity between males' and females' performance on spatial tasks, the relationship between gender and spatial skills has been a controversial issue. Piaget and Inhelder (1956) hypothesized that an understanding of a Euclidian spatial system, usually established by late childhood, is the basis for observing and representing horizontals and verticals of the physical world. In order to test such abilities, Piaget designed the water level and plumb-line tasks. The horizontality test requires the subject to anticipate the position of liquid in tipped containers. To test knowledge of the principle of verticality, a subject is asked to place straight objects (such as poles or trees) on the sides of hills, or to anticipate the position of plumb lines in oblique contexts. Surprisingly, many college students who supposedly have already developed these conceptual abilities, still fail at these horizontality and verticality tests. Most importantly, a profound difference between the sexes prevails, with males succeeding significantly more than females. (Liben, 1978)

From these findings, the question of competence versus performance arises. The competence theory suggests that college females lack the requisite conceptual system to perform the tasks. A more optimistic theory focuses on performance, which

holds that although females possess the spatial competence to complete the tests, they have an inadequate knowledge of physical phenomena. e.g. water and plumb lines. This ignorance of physical phenomena may be due to the fact that these principles are found more often in stereotypical masculine activities than in feminine activities; thus, many females tend to overlook these phenomena in everyday life.

In order to test the two opposing theories of competence versus performance, Liben (1980) presented the horizontality and verticality concepts in both a physical and a nonphysical representation. In the physical condition, subjects were asked to draw water levels and plumb lines. In the nonphysical condition, the subjects drew lines that were "straight across" or "straight up and down" in tipped triangles. Performance was significantly better for both sexes when the tasks were presented in the nonphysical context rather than in the usual physical one; yet, males still excelled under each condition. Thus, the ignorance of physical phenomena and/or the ability to use this knowledge while completing spatial tasks seem to contribute to subjects' failure. Furthermore, the study revealed that the horizontality and verticality scores of the females were highly correlated in the nonphysical condition, but not in the physical one; suggesting that although females possess the same cognitive

structures as the males, they fail to observe and/or apply the relevant knowledge concerning physical phenomena.

To further explore this question, Liben (1984) tested the hypothesis that ignorance of physical phenomena, rather than incompetence, is responsible for poor performance on water-level and plumb-line tasks. Some subjects were given the pertinent information necessary to complete the tasks correctly with the expectation that, when provided with knowledge, both males and females would perform equally as well. The results indicated that even when given the relevant information, women still did not perform as well as males, thus, seeming to support the competence theory. However, in Study 2 of the experiment, Liben tested whether or not the female subjects actually attended to the information provided in the instructions of the task. In order to do this, the physical rule was presented more emphatically and the subjects were required to reproduce the relevant information themselves. Furthermore, the subjects were asked to provide explanations for where they placed the water-plumb lines. Results showed that in the no-rule condition, males performed better than females; however, when the rule was emphatically stated, and the subjects were forced to pay attention to it, there was no significant difference in performance between the sexes. This suggests that just as the

females overlooked the information in the instructions regarding this physical phenomena, they also selectively ignore the evidence of these phenomena in everyday life. It seems that perhaps information which is traditionally considered to be "gender inappropriate", is largely ignored. Therefore, it seems that performance accounts for sex differences in Piagetian spatial tasks.

Obviously, the problem which has been uncovered is that although they possess the competence, females neglect to recognize physical phenomena which are usually considered to be "sex inappropriate". The next logical question is whether or not women whose behavior is not strictly guided by the traditional feminine sex role stereotype, would perform better on Piagetian spatial tasks.

Sex-role Identity

Research shows that the integration of both stereotypical male and female personality traits is most beneficial for a healthy psychological being. (Bem, 1974; Berzins and Welling,1974; Block, 1973, Pleck, 1975) Perhaps some of the most stimulating work has been conducted by Bem, the creator of the Bem Sex Role Inventory. Bem's inventory was the first to consider masculinity and femininity as two separate dimensions,

not bi-polar characteristics on a single continuum. Therefore, an individual need not be one or the other, but can be both. The inventory measures 20 masculine traits, 20 feminine traits, and 20 neutral personality traits. These characteristics were chosen based on sex typed social desirability, not on the simple endorsement of a trait by the two sexes, as in most other inventories. An individual is considered to be masculine, feminine, or androgenous as a function of the difference between his or her endorsement of masculine or feminine characteristics. Thus, a person is sex typed as masculine or feminine if the difference is large; and he or she is considered to be androgenous if the difference is small (Bem, 1974).

It has been found that a strong sex-role identity can act as a restrictive force on an individual's behavior. This is due to the fact that a person with a rigid sex-role identity is more attuned to and affected by sex role stereotypes. Whereas a highly sex typed individual is confined to a set of accepted behaviors, an androgenous personality, possessing an equal amount of stereotypical masculine and feminine traits, is free and competent to adapt to any given situation, regardless of its "sex appropriateness" (Tesser & Leone, 1977).

Bem's hypothesis (1975) was that androgenous persons

"display behavior adaptability across situations, engaging in whatever behavior seems most appropriate at the moment, regardless of its stereotype as appropriate for one sex or the other." In support of her theory, she found that cross-sex behavior is "motivationally problematic" for sex-typed persons and therefore they avoid activities considered to be sex-inappropriate. Furthermore, when they did actually perform opposite gender tasks, the highly sex-typed individuals expressed uneasiness (Bem, Lenney, 1976). In another study, Bem found that the most androgenous, the least sex- typed individuals, were most able to adapt to their surroundings by showing both masculine and feminine stereotypical traits in the appropriate situations. The nonandrogenous subjects, especially the feminine females, all demonstrated behavioral deficits (Bem, 1975). In addition, Baucom and Danker-Brown (1984) have tested the effects of success and failure in sex stereotyped tasks. Their most interesting finding was, once again, that women low in masculinity gave up quickly in tasks after having failed at a male stereotyped task. In the face of this evidence, it is difficult to ignore the far reaching consequences that restrictive sex typing has in shaping one's experiences and in the development of certain skills.

Sex-role Identity and Gender Labelled Tasks

The link between sex- role identity and sex- appropriateness

of a task was demonstrated by Signorella and Jamison (1978). They found that the best predictor of success on the water-level task in females was a masculine sex-identity orientation. This suggests that perhaps these females had more experience in traditionally masculine sex-typed activities. However, it may also be that since plumb-lines are related to a masculine typed activity, perhaps this impedes females' performance of the task, and only those with a masculine orientation, who are not intimidated by gender "inappropriateness" of a task, are not affected. It remains to be seen if most females would succeed at the plumb-line test if it were presented as a feminine typed activity.

Past research supports this idea that superficial labelling of tasks which test an identical concept, does in fact, affect performance. Naditch (1976) gave subjects a field independence test, the Rod and Frame Test, under two conditions; once labelling it a task of "perceptual abilities" and the other condition labelling is a test of "empathy". Remarkably, the men scored higher on the "perceptual abilities" test, and the women performed better on the "empathy" test. Thus, the sex-role appropriateness of the task significantly influenced performance. This study, however, considered gender and not sex-role identity.

In a study by Balistreri and Busch Rossnagel (1989), the Embedded Figures Test was presented to subjects in two forms: as a "drafting aptitude test" in the masculine condition, and as a "fashion design aptitude test" for the feminine condition. This spatial task entails the ability to locate simple figures without being distracted by the context of other figures. The subjects also completed the Bem Sex Role Inventory. The masculine women performed better in the masculine condition, females performed better in the feminine condition (although nonsignificant) and androgenous women performed equally well at both.

The purpose of this study therefore, is to examine the effects of sex role identity and one's ability to perform masculine and feminine labelled spatial tasks. Liben's study did not examine the effects of sex role identity, strictly examining performance differences between the sexes. In this experiment, the strength of the subjects' sex type will be measured using the Bem Sex Role Inventory. Furthermore, stimuli used to test knowledge of the laws of horizontality and verticality will be manipulated to alter their gender appropriateness. It is hypothesized that the feminine typed individual will perform better under the feminine condition; and the androgenous individual will perform equally well in the two conditions.

Furthermore, the effects of practice of the task, in which the subject has an opportunity to realize that he or she does not know the information necessary, will be examined. Baenninger and Newcombe (1989) have provided evidence which shows that practice of a task and brief training yield similar results. After completion of Part 1 of the spatial task booklet, the appropriate physical laws of horizontality and verticality are explicitly stated. It is expected that the subject who fails at Part 1 will then pay more attention to the explicit information provided and will apply it while completing Part 2 containing similar spatial tasks.

Therefore, this study aims to answer three primary questions: 1)Whether androgenous typed women will perform better than feminine typed women on Piagetian spatial tasks, 2)If the gender typed condition in which the spatial tasks are presented makes a difference in the performance of the two groups, and 3) If the order in which these conditions are presented affects performance.

Method

Subjects

Since previous studies have shown males to excel in the

Piagetian Spatial tasks when compared to the performance of women, only female subjects participated in this experiment. The eighty undergraduate women came from Washington and Lee University, Randolph Macon College, and Southern Virginia College for Women.

Materials

Bem Sex Role Inventory All eighty subjects completed the Bem Sex Role Inventory, a measure which evaluates the strength of one's sex identity as feminine, masculine, or androgenous. The Bem Sex Role Inventory lists sixty personality characteristics; twenty considered to be masculine socially desirable traits, twenty feminine socially desirable traits, and twenty neutral characteristics. When taking the BSRI, subjects indicate on a 7 point scale how well each of these masculine and feminine personality characteristics describes himself or herself. The scale ranges form 1 ["never or almost never true"] to 7 ["always or almost always true"]. These responses yield an "Androgyny Score" which is a Student's t ratio for the difference between the subject's endorsement of masculine and feminine personality traits [Bem, 1974]. Women who were found to be feminine, highly sex typed, constituted Group F Women who were androgenous, possessing a balance of both masculine and feminine characteristics, constituted Group A.

Spatial task booklets The four groups of spatial tasks employed in this study were presented in booklets and were modeled after Liben's version of the Piagetian water and plumb-line tasks testing the comprehension of the laws of horizontality and verticality (1984). However, the tasks were manipulated so that they were sex typed as either feminine or masculine.

The feminine version of the horizontality task employed a measuring cup half filled with milk. A line drawing of a measuring cup was shown with directions written underneath it reading, "Imagine that you are baking a batch of cookies. This is a picture of a measuring cup half filled with milk. On the following pages, there will be more drawings of this measuring cup; However, rather than being straight, each measuring cup is tipped. Please complete each drawing to show how the milk would look when the measuring cup, half filled with milk, is held in the following positions."

The subjects then saw six drawings of measuring cups tilted 30 ,50 , and 70 to the right and 30 , 50 , and 70 to the left. These drawings were randomly ordered.

The masculine version of the horizontality task used a can half filled with oil. An illustration of a can half filled with oil was shown with the directions written below it, "Imagine that you are putting oil in a car. This is a drawing of an oil

can half filled with oil. On the following pages, you will see more pictures of this can, however the cans are tipped at various angles. Please complete each drawing to demonstrate the way the oil would look when the can, half filled with oil, is held in the following positions."

The subjects then saw six drawings of oil cans tilted 30 , 50 , and 70 , to the right and 30 ,50 ,and 70 to the left. The drawings were randomly ordered.

For the feminine version of the verticality test, the subjects saw drawings of a dollhouse with a light fixture hanging from the ceiling. The subjects were asked to draw the way the light fixture would hang when the dollhouse was tilted at various angles. First, the subjects saw a line drawing of the dollhouse flat on a table. Underneath the illustration it said," This is a picture of a dollhouse. Hanging from the ceiling is a plant. On the following pages you will see more pictures of this dollhouse, however, the dollhouse will be slanted because two people are steadily carrying it up or down a flight of stairs. Please draw in the plant fixture as it would hang from the ceiling of the dollhouse as the dollhouse is slanted at these various angles."

The subjects then saw six pictures of a dollhouse slanted 15 , 30 , and 50 to the right and 15 , 30 , and 50 to the

left; in randomized order.

The masculine version of the verticality task included drawings of a train car on the sides of hills; the subjects were asked to show the way a cord and light bulb would look hanging from the ceiling of the car. First, the subjects were shown a line drawing of a train car with a cord and light bulb hanging from the ceiling when it was on flat ground. Underneath the picture it said,"This is a picture of a train car. From the ceiling of the train car, there is an electric bulb hanging from a cord. On the following pages you will see more drawings of this train car travelling up and down hills. Please complete each picture by drawing the way the electric bulb would hang from the ceiling of the train car while it is in the positions shown."

Then the subjects saw six pictures of train cars on hills inclined 15 , 30 , and 50 to the right and 15 30 and 50 to the left. The drawings were in random order.

Procedure

Each subject completed the Bem Sex Role Inventory and was placed in either the feminine or androgenous typed group. Twenty of the subjects in Group F [feminine sex typed] received the feminine version of both tasks and the other twenty subjects

in Group F received the masculine version of both tasks. Likewise, twenty of the subjects in Group A [androgenous] completed the feminine version of both tasks, and the other twenty subjects in Group A completed the masculine version of the tests.

Following Part 1, in which all subjects completed a feminine or a masculine version of both the horizontality and the verticality tasks, an instructional page was provided. These instructions explicitly stated the physical laws of horizontality and verticality. For horizontality the instructions read, "Remember, the law of horizontality states that even though the cup [can] is tipped, the liquid will always be straight across or horizontal." For verticality, the instruction stated,"Remember, the law of verticality states that even though the dollhouse [train] is on a slant, the light fixture [cord and light bulb] will always hang straight up and down or vertically."

Following these instructions, the subjects then completed Part 2. Once again, each subject completed one set of horizontality tasks [masculine or feminine] and one set of verticality tasks [masculine or feminine]. These tasks were identical to the tasks of Part 1 in principle and instructions.

For the feminine version of the horizontality task, the subjects were required to show how nailpolish would look in a nailpolish bottle that was half filled and tilted 30, 50, and 70, to the right and 30 , 50 , and 70 to the left. The masculine version of the horizontality task implemented an illustration of a cross bar. The subjects were asked to indicate how the horizontal bar would look when the vertical bar was tilted at the same angles cited above.

For the verticality tasks of Part 2, the subjects were asked to show how a bell hanging from the top of a baby carriage would look if the carriage was being pushed up and down hills of 15, 30 ,and 50 to the right and 15 , 30 , and 50 to the left. For the masculine version, the subject was asked to draw the way stakes would be placed in order to build a fence on the side of hills slanted at the above angles.

Ten of the subjects from Group F ["feminine typed"] who previously completed the masculine version in Part 1, were given a masculine version once again. The other ten subjects of Group F who received the masculine version in Part 1 now received a feminine version of the tasks. Likewise, the ten "feminine typed" subjects who completed the feminine version of the task in Part 1, were given the feminine version again on Part 2. The

other ten feminine typed subjects who completed the feminine tasks on Part 1, now received the masculine version of the tasks.

For Group A [the androgenous subjects], ten of the subjects who completed the masculine version of the tasks in Part 1 received the masculine version once again. The other ten androgenous subjects who were in the masculine condition of Part 1 now completed the feminine version of the tasks. Finally, the ten androgenous subjects who completed the feminine versions of the tasks in Part 1, received the feminine versions once again, and the other ten androgenous subjects in the feminine condition of Part 1, now completed the masculine version of the tests.

Scoring. A response was scored correct if the milk/oil or fixture/cord line was drawn within 10 degrees of the horizontal/vertical, yielding total scores of 0 to 6 for both horizontality and verticality tasks.

Results

The data from the feminine typed subjects (indicated by **F**), were collapsed into the two conditions; Feminine (F1) and Masculine (M1) for Part 1 (before the physical laws were

explicitly stated). Data from the androgenous typed subjects (referred to as **A**) were organized in an identical manner. The means for both groups **F** and **A** in each condition are shown in Table 1. The means for groups **F**2 and **A**2 in the F and the M conditions for Part 2 are shown in Table 2.

Insert Table 1

Insert Table 2

A twoway 2x2 ANOVA across sex type and condition performed on the means for Part 1 only approached significance for sex type, $p<.08$. A two way 2x2 ANOVA of the Part 2 means showed both sex type [$F(1, 79)= 6.12$, $p<.015$] and gender condition [$F(1,79)=9.22$, $p<.003$] to be significant. Furthermore, t tests indicated that in Part 2, the **A** scores in the feminine condition were significantly higher than all other groups in all other conditions, by at least $p<.01$.

To facilitate referring to the four possible combinations of the tasks, the gender condition of the task is be stated first, [M standing for masculine, and F standing for feminine] and the number following each condition represents whether it was presented first or second in the task booklet [1 indicating Part 1, before the explicit rules were stated; and 2 indicating Part

2, after the explicit rules were given]. Thus, the four possible conditions for each group (**F** or **A**) were F1F2, M1M2, F1M2, and M1F2.

Insert Table 3

A twoway 2x4 ANOVA across the four possible conditions was performed, examining scores only on Part 2. Table 3 shows the means for both Part 1 and Part2 in each of the four conditions for Group F and Group A. Both sex type (**A** or **F**) and gender condition were significant; sex type $F(1,79)=6.12, p<.016$ and gender condition $F(1,79)=4.08$, $p<.0099$. T tests revealed influences that the conditions of Part 1 may have had on the performance on Part 2. Comparing groups in which the gender conditions of the tasks were the same, **A**(F1F2) performed significantly better than **A**(M1M2), $t(18)=3.81, p<.001$. Group **A**(F1F2) also scored significantly better than **F**(M1M2), $t(18)=4.21, p<.0005$. There was no significant difference between **A**(F1F2) and **F**(F1F2), or **A**(M1M2) and **F**(M1M2).

Examining the conditions in Part 2 which contain different gender conditions in Part1 and Part2; When the masculine condition preceded the feminine condition, Group **A**(M1F2) scored

better than Group **F**(M1F2), approaching significance,$p<.07$. Comparing performance on Part 2 in the feminine condition, Group **F**(M1F2) group scored significantly lower than the **A**(F1F2) group, $t(18)=-2.61, p<.01$. However, **F**(M1F2) did not differ significantly from **F**(F1F2). Finally, there was a significant difference between **A**(M1M2) and **A**(M1F2), $t(18)=-2.71, p<.01$.

Discussion

The fact that the androgenous subjects scored significantly higher than the feminine typed subjects on Part 2, is consistent with the hypothesis that the androgenous subjects would perform better than the feminine subjects on Piagetian spatial skills. Interestingly, in Part 1 there was no significant difference between androgenous women's performance in the two gender conditions; however, in Part 2, after practice and exposure to explicitly stated physical rules, there was a significant difference in scores across the masculine and feminine conditions, $p<.003$.

According to Bem's theory of androgyny, one would expect the androgenous typed subjects to perform equally well in the masculine and feminine conditions of the spatial tasks. However, in Part 2, the androgenous womens' scores in the feminine condition (F2) were significantly higher than all other groups in

all other conditions. Thus, obviously the gender condition of the tasks was a significant factor affecting both androgenous women's and feminine typed women's performance. This finding supports the work of Naditch (1976) concerning superficial gender labelling of tasks.

Looking first at the conditions in which both Part1 and Part 2 are the same gender typed task (F1F2, M1M2); scores in Part 2 for both groups were highest in the F1F2 condition and the lowest in the M1M2 condition. As mentioned in the results, group **A**(F1F2) scored significantly better than group **F**(M1M2). Furthermore, among the androgenous subjects, group **A**(F1F2) performed significantly better in Part 2 than did their counterparts in group **A**(M1M2). Obviously, it seems that both the **A** and the **F** women found the F condition to be easier than the M condition, even though both conditions tested the identical concepts. This observation may have some interesting implications; Past research comparing male/female performance on Piagetian tasks have presented tasks in a traditional male context, and have shown males to perform better than females (Liben,1978). However,in light of the present findings that women perform significantly better in the feminine condition of the Piagetian tasks, perhaps females' performance would not be significantly lower than the males' if the tasks were presented

to both sexes in the feminine condition.

Now looking at the conditions in which both M and F conditions are represented, one may examine whether or not the order in which the gender typed tasks were completed affected performance on Part2. By comparing the means in Part 2 for **F**(F1F2) and **F**(M1F2), one sees that the M or F condition in Part 1 seems to affect performance in the F condition of Part 2. Perhaps this difference in performance may be accounted for if one considers that the M1 condition presented first may have intimidated or frustrated the feminine subjects and therefore they did not perform as well in Part 2. In accordance with this idea, the **A**(M1F2) subjects scored higher on Part 2 than the **F**(M1F2). It is logical to surmise that perhaps the androgenous women were not quite as frustrated by the masculine condition as were the feminine typed women, and therefore were able to perform better in F2 when preceded by either the M1 or F1 condition.

Furthermore, a significant across sex type difference was found between **F**(M1F2) and **A**(F1F2) in Part 2. Thus, it seems that when the "easier" feminine condition was completed first, it was easier for the androgenous subjects to learn and to perform their best in the following feminine condition; whereas, for feminine typed subjects the more "challenging" masculine tasks preceding

the usually "easier" feminine tasks in Part 2, may have discouraged the feminine typed subjects from learning and applying the principles in F2. Yet, the preceding M1 task did not significantly affect androgenous womens' performance, as evident by the non significant difference between **A**(F1F2) and **A**(M1F2).

However, following this train of thought, one may have also expected the feminine typed subjects to perform significantly better when the feminine condition came before the masculine condition, [comparing groups **F**(F1M2) and **F**(M1M2)]. However, no such significant difference was found. Why was it that the **F**(F1M2) subjects failed to benefit from the easy task presented first? A possible explanation for the lower scores on M2 even after following F1 may be due to the particular tasks included in M2, the crossbar and the fence building tasks. For, the instructions following Part 1 stated the rules of horizontality and verticality in the context of the tasks in Part 1 (ie. "Even though the cup is tipped, the liquid will always be straight across or horizontal.") The tasks in F2 were almost identical to those in M1 and F1, simply changing the gender context. However, perhaps the M2 condition appeared more difficult to the **F** group because the crossbar and fence task were not as obviously similar to F1. Perhaps M2 actually involved a more complete

understanding of the physical rules by asking the subject to apply the principle in a slightly different manner, rather than simply copying the example given in the instructions.

Another puzzling finding concerns the data from group **A**(M1M2). There was a significant difference in the scores on Part 2 between **A**(M1M2) and **A**(M1F2) A closer look at **A**(M1M2) raises some questions concerning accurate representation of the androgenous group. On Part 1 in the masculine condition, these subjects' scores [mean 7.9] are much lower than their androgenous counterparts in **A**(M1F2) [mean 10.10] completing the identical tasks. **A**(M1M2) is the only androgenous group whose performance on Part 2 is worse than its performance on Part 1. The earlier reasoning provided above, that the M1 condition first may have frustrated or intimidated the subjects and this affected performance on M2, does not seem adequate here. In addition, the androgenous group, **A**(F1M2), which completed the identical masculine tasks for Part 2, did not seem to have a similar problem. It may be that this sample group did not accurately represent the **A**(M1M2) condition, and that it may have had a serious disruptive effect on the overall statistics when it was averaged with the other **A** typed women. Perhaps if these **A**(M1M2) subjects had been more in line with the other three androgenous groups, there may have been a more significant difference in

scores between the androgenous and the feminine typed women.

Other possible problems related to the failure to find expected differences involve the possible need for stricter categorization of sex-role identity according to the Bem Sex Role Inventory. It is possible that the cut off for feminine typed individuals was not stringent enough, and therefore the **F** group may have been contaminated with individuals who should have been categorized as androgenous. Thus, perhaps more conservative cutoffs would yield a greater difference across sex type.

Overall, however, findings do support part of the hypothesized difference in performance between sex type in that the androgenous subjects performed significantly better than the feminine typed subjects after exposure to explicitly stated laws of horizontality and verticality. Thus, it seems that although the androgenous women were still more comfortable performing the tasks presented in a feminine context, once given the appropriate physical rules, they were better able than the feminine typed women to apply them in subsequent tasks.

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Table 1.

Part 1

Gender Condition of Task

		M1	F1
Sex Role Identity	F	7.40	8.45
	A	9.00	9.40

Mean Scores (0-12)

Table 2.

Part 2

Gender Condition of Task

		M2	F2
Sex Role Identity	F	6.70	8.60
	A	8.15	11.10 *

Mean Scores (0-12)

Table 3.

	Condition of Task			
	F1F2	**M1M2**	**F1M2**	**M1F2**
FEM	8.90/9.50	b 7.30/6.40	8.00/7.00	c d 7.50/7.70
AND	a b d 9.80/11.40	a e 7.90/6.90	9.00/9.40	c e 10.10/10.80

Part 1 Means/Part 2 Means