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A STUDY ON EXPLORING THE CLASSES OF RORSCHACH AGGRESSION VARIABLES

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ABSTRACT

The researchers in this study explored the classes of Model 1 (including Primary Process Aggression, Secondary Process Aggression, Aggressive Movement, Morbid Content, Aggressive Content, Aggressive Potential, Aggressive Past, and Sado-masochism) and Model 2 (Aggressive Movement, Aggressive Content, Aggressive Potential, Aggressive Past, Active Aggression, Passive Aggression, Overt Aggression, Covert Aggression, Aggressive Emotion, Physical Harm, and Mental Harm) about Rorschach variables related to aggression in a Chinese sample of college students (N = 90). Factor analysis of Model 1 revealed two dimensions accounting for 69.713% of the total variance and largely supported previous findings for a 2-component model of Rorschach aggressive imagery that had been identified. Factor analysis of Model 2 revealed three dimensions accounting for 67.771% of the total variance, however, failed to support the classes of Model 2. From the results of this study, Model 1 is more mature and can better explain the classes of Rorschach aggression variables, and Model 2 still needs further research and support.

Keywords: *Rorschach aggression variables, Model 1, Model 2, a Chinese college student sample.*

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INTRODUCTION

Using the Rorschach test to measure and evaluate aggression can be traced back to the 1940s (Elizur, 1949). Up to now, it has a long history, and many Rorschach aggression variables have been put forward. Liu and Meng (2003) summarized the aggression variables proposed by Holt (1977), Exner (1993), and Gacono and Meloy (1994) as the main Rorschach aggression variables in a review article:

Primary Process Aggression (A1) and Secondary Process Aggression (A2)
Holt (1956, 1977) developed the codes (A1 and A2) to score the aggressive responses. A1 is defined as intense, overwhelming, murderous, or palpably sadomasochistic aggression. A2 revolves around hostility or aggression of a more socially tolerated kind-usually nonlethal (Holt, 1977). An example of A1 might be "two persons, they are fighting", and an example of A2 might be "dogs, they want to get at each other, but they are tied up" (Card II).

Aggressive Movement (AG)
AG is "any movement response (M, FM, or m) in which the action is clearly aggressive, such as fighting, breaking, tearing, stalking, exploding, arguing, looking angry, and so on" (Exner, 1993, p. 167). Any movement response in which the action is clearly aggressive and is occurring in the present (Exner, 1986). Example: (Card III) "It's two people pulling a crab apart." This variable is coded as AGM in the Rorschach Performance Assessment System (Meyer et al., 2011).

Morbid Content (MOR)
Morbid Content has two definitions. The first identifies an object as dead, destroyed, ruined, spoiled, damaged, injured, or broken. Examples of this might be "a broken mirror" or "a dead dog." The second definition includes the attribution of dysphoria to an object such as "a gloomy house" or "a sad tree." (Exner, 1986, 1993).

Aggressive Content (AgC)
Any content popularly perceived as predatory, dangerous, malevolent, injurious, or harmful. An example of this response would be "a lion," "a shotgun," or "it's a battle axe." The traditional AgC scoring criterion did not include popular responses (Gacono & Meloy, 1994), but in the studies of Ren (2007) and Katko et al. (2010), the coding of AgC began to include them. This variable is coded as AGC in the Rorschach Performance Assessment System (Meyer et al., 2011), which also assigns the code even if it occurs with popular content (e.g., a lion to the D1 area of Card VIII).

Aggressive Potential (AgPot)
Any response in which an aggressive act is getting ready to occur. Usually, the act is imminent (Gacono, 1988, 1990). Example: (Card X) "Two little alien creatures . . . being threatened to have their catch taken away from them by crab-like creatures, real predators . . . they don't know these crab creatures are going to lop their heads off (laughs)." The Rorschach Performance Assessment System codes these anticipatory states or preparatory activities for aggressive acts as AGM responses (Meyer et al., 2011).

Aggressive Past (AgPast)
AgPast is coded for any response in which an aggressive act has occurred or the object has been the target of aggression (Gacono, 1988, 1990). For example: (Card X) "looks like a bug here, someone used a drill press on him, blood here."

Sado-masochism (SM)
Any response in which devalued, aggressive, or morbid content is accompanied by a pleasurable effect expressed by the subject (Gacono & Meloy, 1994). For example: (Card VII) "A lady dancing and she got her head blown off (laughs)."

Liu (2004) proposed some new variables about aggression：

Active Aggression (AAg). Any response that includes an active aggressive movement reaction, such as "two goblins are gnawing at a person's body, shed a lot of blood." These are active aggression behaviors.

Passive Aggression (PAg). Any response that includes a passive-aggressive movement reaction, such as "one person is buried in something, two hands for help." These are passive injury behaviors.

Overt Aggression (OAg). These refer to the obvious, naked, and intense forms of aggressive content. For example, "two people in a fight, head, and feet are injured, bleeding."

Covert Aggression (CAg). Referring to less obvious, concealed, and moderately aggressive contents, such as "two people are competing or confronting, debating, etc.". OAg and CAg are divided according to the severity of aggression and were developed based on Holt's A1 and A2 coding criteria. These contents are limited to aggressive movements.

Aggressive Emotion (AgE). Any response including "rage, anger, ferocity or threatening emotion", such as "Raged God", "Boxer loses his temper", "Two women grab a stool, already angry."

Physical Harm (Ph) and **Mental Harm (Mh)**. MOR are divided into these two codes according to two definitions of MOR.

The aggression variables proposed by Holt (1977), Exner (1993), and Gacono and Meloy (1994) are considered the main Rorschach aggression variables, and most studies on the classes of Rorschach aggression variables are about these aggression variables and classified them as a whole (Baity & Hilsenroth, 1999; Jiang, 2006; Katko et al., 2010; Liebman et al., 2005; Ying, 2006). Meanwhile, Liu (2004) made revisions to these Rorschach variables (retained some original variables, modified some variables, and added some new ones) and proposed a Rorschach aggression variable model (Liu, 2004). In this study, compared with Liu's (2004) model, the researchers conclude the variables by Holt (1977), Exner (1993), and Gacono and Meloy (1994) into Model 1 and Liu's (2004) model into Model 2.

LITERATURE REVIEW

Many researchers have done much work on the classes of Rorschach aggression variables, including Model 1 and Model 2 (Baity & Hilsenroth, 1999; Jiang, 2006; Katko et al., 2010; Liebman et al., 2005; Liu, 2004; Liu & Meng, 2007; Yan, 2005; Yan & Meng, 2007; Ying, 2006).

Aggression Model 1
The Model 1 includes the main aggression variables (A1, A2, AG, MOR, AgC, AgPot, AgPast, and SM) proposed by Holt (1977), Exner (1993), and Gacono and Meloy (1994). Some researchers have explored the structure of these aggression variables.

Baity and Hilsenroth (1999) investigated 6 Rorschach variables of aggression (Al, A2, AG, MOR, AgC, AgPast). Percentage agreement between the two raters, which ranged from 86 to 99%, revealed a high level of agreement. The interrater reliability (κ coefficients) for the Rorschach aggression variables ranged from .63 to .95. According to criteria by Fleiss (1981), three variables (MOR, AgC, and AgPast) obtained a reliability coefficient within the excellent range (> .74), with the remaining three coefficients (A1, A2, and AG) reaching the average-to-good range (⩾ .60 to .74). These results indicated these 6 Rorschach aggression variables can be scored reliably. Results of principal components analysis with orthogonal-varimax rotation revealed that the six aggression variables formed two distinct factors. In Factor I, the primary loadings were MOR (.86), AgPast (.90), and A1 (.87), which had an eigenvalue of 3.1, accounting for 52% of the variance. Factor II revealed significant loadings of AG (.60), AgC (.93), and A2 (.92), comprising 25% of the variance, an eigenvalue of 1.5. The total variance explained by these two factors was 77%. Factor I (MOR, AgPast, and A1) appears to represent aggression at objects that might indicate a more primitive level of organization associated with more intense aggression. These responses might signify aspects of both the self and objects internalized by the individual as damaged, victimized, malevolent, or all three. These internal representations might also indicate how the individual experiences and interacts with the external world. Factor II (AG, AgC, A2) appears to represent aggressive objects, which can be considered more reflective of a higher level-ego-syntonic or more socially tolerable type of aggression.

Liebman et al. (2005) examined 5 Rorschach aggression variables (Al, A2, AG, AgC, AgPast) in a sample of adjudicated adolescents. The interrater reliability (κ coefficients) for the Rorschach aggression variables ranged from .64 to .91. According to criteria by Fleiss (1981), three of five (A2, AgC, and AgPast) variables obtained a reliability coefficient within the excellent range (> .74), with the remaining two coefficients (A1 and AG) reaching the average-to-good range (≥ .60 to .74). All 5 Rorschach aggression variables were rated reliably. The principal components factor analysis of the Rorschach variables with oblique rotation revealed two distinct factors accounting for 71% of the total variance. In Factor I, the primary loadings were A2 (.94), AgC (.90), and AG (.49), which had an eigenvalue of 2.23, accounting for 44.66% of the variance. Factor II revealed significant loadings of AgPast (.89) and A1 (.88), comprising 26.48% of the variance, an eigenvalue of 1.32. Factor I included A2, AgC, and AG and was interpreted as indicating aggressive objects. Factor II included AgPast and A1 and was interpreted as aggression at objects. The resulting factor structure was similar to the two-factor solution reported by Baity and Hilsenroth (1999), except that the study did not include MOR.

Jiang (2006) in China examined 7 Rorschach aggression variables (A1, A2, AG, MOR, AgC, AgPot, and AgPast) in a sample of children. The interrater reliability (κ coefficients) for the Rorschach aggression variables ranged from .830 to .936. According to criteria by Fleiss (1981), all seven variables obtained a reliability coefficient within the excellent range (> .74) and indicated they can be rated reliably. Principal components analysis with orthogonal-varimax rotation supported those aggression variables could be summed up into two factors: the first factor included AG, MOR, A1, AgPot, and AgPast, and the second factor included A2 and AgC. The total variance explained by these two factors was 80.324%. Jiang (2006) named the two factors primitive aggression and sublimed aggression. Primitive aggression reflects aggressive behavior and more intense, direct forms of aggression, which may reflect ego-dystonic aggression; sublimed aggression reflects the content of the aggression and a relatively mild form of aggression, which may reflect ego-syntonic aggression. The resulting factor structure was also similar to the two-factor solution reported by Baity and Hilsenroth (1999), except for AG and AgPot.

Katko et al. (2010) examined 9 Rorschach variables related to hostility and aggression (AG, MOR, A1, A2, AgC, AgPast, AgPot, H, h) in a sample of medical students. Using Cicchetti's (1994) benchmarks, interrater reliability was excellent (ICC > .74) for eight of the variables (AG = .80, MOR = .81, A1 = .92, A2 = .83, H = .73, h = .82, AgC = .91, and AgPast = .76) and good for the remaining one (≥ .60 – .74; AgPot = .68). These 9 Rorschach variables can be rated reliably. Principal components analysis with orthogonal-varimax rotation revealed two dimensions accounting for 58% of the total variance. Component 1 was defined by A2, AgC, and h; it accounted for 31% of the total variance after rotation. This dimension reflects the production of responses containing hostile behavior, weapons, and aggressive instruments. Component 2 accounted for 27% of the variance after rotation, and it was defined by H, AgPast, MOR, and A1. Accordingly, this component indicates damaged, harmed, or spoiled objects. The results were also like the two-factor solution reported by Baity and Hilsenroth (1999) and Liebman et al. (2005), except for the fact that this study included the hostility variables of Elizur (1949).

Most of the aforementioned studies support the two-factor solution of the aggression Model 1.

Aggression Model 2

Model 2 is the aggression variable model proposed by Liu (2004), and it includes AG, AgC, AgPot, AgPast, AAg, PAg, OAg, CAg, AgE, Mh, and Ph. Among them, as mentioned above, Liu (2004) named the two types of MOR as Ph and Mh. Liu (2004) proposed the hypothesis that there are three structures of these aggression variables: aggressor, aggressive behaviors, and aftermath. This includes AgC; aggressive behaviors include AG, AgPot, AgPast, AAg, PAg, OAg, CAg, and AgE; aftermath includes Mh and Ph. In the samples of criminals and normal college students, Liu (2004) verified aggression variables' reliability and validity: The correlation coefficients between two raters were almost close to or above 0.8, indicating the interrater reliability was good, and Cronbach's coefficients of all variables were all above 0.7; the empirical validity has been proved by significant differences between criminals and normal college students (except for AgE). Principal components analysis with orthogonal-varimax rotation supported that aggression variables formed four factors: the first factor included AG, AAg, OAg, CAg; the second factor included PAg and AgPast; the third factor included Mh, Ph, and AgE, and the fourth factor included AgPot and AgC. The total variance explained by these four factors was 68%. These dimensions were active aggression, passive aggression, aftermath, and aggressor[1] (Liu, 2004). It differs from his hypothesis, but it can be explained that aggressive behaviors are probably divided into active and passive aggression (Liu, 2004).

By using the Rorschach test and the Brief Psychiatric Rating Scale (BPRS) to measure the psychological symptoms of patients, Yan and Meng (2007) investigated the aggression variables proposed by Liu (2004). The results indicated aggression variables AgC, AgPot, AgE, and Mh scores were significantly related to BPRS hostility factor scores, and AgC scores had a significant difference between the high group and low group of BPRS hostility factor scores. The principal components analysis with orthogonal-varimax rotation showed these aggression variables formed three factors: the first factor included AG, AAg, OAg; the second factor included AgPot, AgC, AgE, Mh, CAg; the third factor included Ph, AgPast, and PAg. The total variance explained by these three factors was 76%. Compared with Liu's (2004) results on the factor structure, it is found that these five variables (AG, AAg, OAg, AgPast, and PAg) are relatively stable, and other variables need to be further studied.

[1] Here, "aggressor" was explained as the potential of aggression (Liu, G-H., 2004).

In sum, Model 1 includes A1, A2, AG, MOR, AgC, AgPot, AgPast, and SM, and the two-factor solution of the aggression Model 1 is also supported by many studies. Model 2 includes AG, AgC, AgPot, AgPast, AAg, PAg, OAg, CAg, AgE, Mh, and Ph and Liu (2004) proposed a three-factor solution. This solution needs further research. The question of this study is "Which is the best solution for the aggression variables in a Chinese sample?" This study uses a Chinese college sample to test the factor structure of these variables further.

METHOD

Participants

All the participants used in this study are from an archival file of the first author's study (Jiang et al., 2015). The sample includes 90 college students who majored in psychology in the same college including freshmen to seniors.

Procedures

The current study scored the aggression variables according to two models. The first model is based on the aggression variables proposed by Holt (1977), Exner (1993), and Gacono and Meloy (1994) (A1, A2, AgPast, MOR, AG, AgC, AgPot, and SM). Because SM is rare in healthy college students and this sample, no SM score was found either. Therefore, SM was omitted from this study. Scoring was completed according to the scoring standards summarized by Jiang (2006). As for the scoring of AgC, considering cultural differences, this study scored it per Liu's (2004) standards and the Chinese norm formulated by Ren (2007). Model 2 encompasses the aggression variable model proposed by Chinese researcher Liu (2004), including AG, MOR, AgC, AgPot, AgPast, AAg, PAg, OAg, CAg, AgE, Mh, and Ph. This study scored Model 2 variables according to the scoring standard proposed by Liu (2004).

The Rorschach data of 90 college students were scored by psychology undergraduate students who studied the Rorschach test for two years in succession. The administration followed the procedures articulated by Exner (2001, 2013) in the former study (Jiang et al., 2015), and the scoring of the Rorschach aggression variables followed the aggression variable models described above.

Each model was scored by three students separately. The final unified scores were decided by three students together in each group. The two groups of students learned their scoring model to avoid mutual influence. At last, the first author checked and determined the final scores.

Input all data about aggression variables into the computer and use SPSS 28.0 for analysis.

Data Analysis Plan

The study calculated interrater reliability based on the three sets of scorers for each model for each of the Rorschach aggression variables using the exact agreement intraclass correlation (ICC) for a single rater under a one-way random effects model to ensure the reliability of raters. This study used Pearson correlations analysis and principal component analysis with an orthogonal-varimax rotation to investigate the structure of these aggression variables. The number of factors was obtained using parallel analysis based on SPSS syntax developed by O'Connor (2000).

RESULTS

Using Cicchetti's (1994) benchmarks, in Model 1, interrater reliability was excellent (ICC > .74) for six of the variables (AG = .799, MOR = .965, A1 = .832, A2 = .888, AgC = .894, and AgPast = .910) and fair (ICC= .40-.59) for the remaining one (AgPot = .574); In Model 2, interrater reliability was excellent (ICC > .74) for seven of the variables (Mh = .833, Ph = .796, AgE = .822, OAg = .790, CAg =

.903, AgC = .912, and AgPast = .849), good (ICC= .60-.74) for two variables (Ag = .666 and PAg = .612), and fair (ICC= .40-.59) for the remaining ones (AgPot = .570 and AAg= .534).

Model 1

A correlation matrix is presented to show the relation between the Model 1 aggression variables (Table 1). The table reveals that almost all aggression variables were significantly related to one another except AgC and A1 (r = .182, p = .086), MOR and AG (r = .127, p = .235), AgPot and A2 (r = .192, p = .069), AgPot and AG (r = -.077, p = .469), AgPot and AgC (r = .054, p = .612), and AgPast and AG (r = .173, p = .103). Among these correlations, the three highest ones were between A2 and AgC (r = .962), A1 and AgPast (r = .870) and AgPast and MOR (r = .797). AgPot had low correlations with other variables.

Table 1.

The Correlation Matrix of All Model 1 Aggression Variables

Variable	*A1*	*A2*	*AG*	*AgC*	*AgPast*	*MOR*
A2	.222*					
AG	.348**	.412**				
AgC	.182	.962**	.238*			
AgPast	.870**	.279**	.173	.227*		
MOR	.766**	.246*	.127	.218*	.797**	
AgPot	.214*	.192	-.077	.054	.250*	.259*

Note. N = 90， p < 0.05 ** p < 0.01.*

Based on the first five observed eigenvalues of 3.173, 1.707, 1.047, 0.731, 0.230 and the 95th percentiles of the first five eigenvalues from the parallel analysis with values of 1.560, 1.346, 1.179, 1.053, 0.926, the number of the factors was decided to be two. Then, the analysis was re-performed on the actual data, with the restricted number (two) and the results of the exploratory factor analysis with the orthogonal-varimax rotation are presented in Table 2.

In Factor I, the primary loadings were A1 (.919), AgPast (.927), and MOR (.893), which had an eigenvalue of 2.691, accounting for 38.438% of the variance. Factor II revealed significant loadings of A2 (.977), AgC (.944) and AG (.518), comprising 31.275% of the variance, an eigenvalue of 2.189. The total variance explained by these two factors was 69.713%.

Table 2.

Factor Structure of The Model 1 Aggression Variables

Variable	Factor Loadings	
	I	II
A1	.919	

A2		.977
AgPast	.927	
MOR	.893	
AG		.518
AgC		.944
AgPot		
Eigenvalue	2.691	2.189
Variance	38.438%	31.275%

Note. N=90. Only factor loadings of .400 or greater are shown.

Model 2

A correlation matrix in Table 3 also showed the relation between the Model 2 aggression variables. The table reveals that more than half of the correlations between all aggression variables were significant.

Table 3.

The Correlation Matrix of All Model 2 Aggressive Variables

Variable	*AgC*	*AgPot*	*AG*	*AgPast*	*AAg*	*PAg*	*OAg*	*CAg*	*AgE*	*Mh*
AgPot	.053									
AG	.184	-.082								
AgPast	.227*	.223*	.193							
AAg	.219*	.418**	.845**	.316**						
PAg	.174	.258*	.133	.946**	.210*					
OAg	.226*	.168	.699**	.691**	.680**	.690**				
CAg	.139	.624**	.269*	.312**	.617**	.208*	.093			
AgE	.432**	.089	.200	.156	.212*	.161	.193	.170		
Mh	.088	.090	.141	.289**	.117	.362**	.317**	.027	-.067	
Ph	.215*	.232*	.157	.799**	.256*	.795**	.592**	.229*	.162	.258*

*Note. N = 90， * p < 0.05 ** p < 0.01.*

Based on the first five observed eigenvalues of 4.316, 1.833, 1.462, 1.264, 0.842 and the 95th percentiles of the first five eigenvalues from the parallel analysis with values of 1.762, 1.558, 1.368, 1.233, 1.124, the number of the factors (Model 2) was decided to be four. Then, the analysis was re-performed on the actual data with the restricted number (four), and the results of the exploratory factor analysis showed there were four factors.

However, the loadings of OAg(.673) in Factor I and OAg (.666) in Factor II are both above 0.4, and the loadings of AAg (0.859) in Factor II and AAg (.468) in Factor III are also both above 0.4. As these two variables cannot be determined which factor they belong to, OAg and AAg are deleted, and the model has nine variables left. Then, the study re-analysis the revised Model 2.

Based on the first five observed eigenvalues of 3.293, 1.456, 1.350, 0.979, 0.814 and the 95th percentiles of the first five eigenvalues from the parallel analysis with values of 1.662, 1.462, 1.285, 1.165, 1.053, the number of the factors (the revised Model 2) was decided to be three. Then, the analysis was re-performed on the actual data with the restricted number (three), and the results of the exploratory factor analysis with the orthogonal-varimax rotation are presented in Table 4.

Three factors can be seen from the table. In Factor I, the primary loadings were Mh (.539), Ph (.849), AgPast (.905), and PAg (.934), which had an eigenvalue of 2.754 accounting for 30.595% of the variance. Factor II revealed significant loadings of AgPot (.901) and CAg (.871), comprising 18.711% of the variance, an eigenvalue of 1.684. Factor III revealed significant loadings of AgE (.796), AgC (.764), and Ag (.550), comprising 18.465% of the variance, an eigenvalue of 1.662. The total variance explained by these three factors was 67.771%.

Table 4.
Factor Structure of The Revised Model 2 Aggression Variables

Variable	Factor Loadings		
	I	II	III
Mh	.539		
Ph	.849		
AgE			.796
AgC			.764
AgPot		.901	
Ag			.550
AgPast	.905		
PAg	.934		
CAg		.871	
Eigenvalue	2.754	1.684	1.662
Variance	30.595%	18.711%	18.465%

Note. N=90. Only factor loadings of .400 or greater are shown.

DISCUSSION

The results of this study on Model 1 revealed that the seven Rorschach aggression variables developed by Holt (1977), Exner (1993), and Gacono and Meloy (1994) are almost related to one another in significant ways except for AgPot. AgPot had low correlations with other variables. Results of the factor analysis revealed that the seven aggression variables formed two distinct factors, which accounted for 69.713% of the total variance. The primary load variables of Factor I (A1, AgPast, and MOR) and II (A2, AgC, and AG) are completely consistent with Baity and Hilsenroth's (1999) study. Like the studies mentioned earlier (Baity & Hilsenroth, 1999; Liebman et al., 2005; Jiang, 2006; Katko et al., 2010), this study also supports two aggressive responses to the Rorschach. The first type (Factor I) appears to represent aggression at objects that might indicate a more primitive level of organization associated with more intense aggression, that is, ego-dystonic. The second type (Factor II) appears to represent aggressive objects, which can be considered to be reflective of a more socially tolerable aggression type, ego-syntonic (Baity & Hilsenroth, 1999; Liebman et al., 2005). The only doubt is AgPot. Concerning AgPot, the studies of Baity and Hilsenroth (1999) and Liebman et al. (2005) didn't include it. In this study, factor analysis shows it tends to belong to the first factor, and the loading is .382. The past study of Jiang (2006) found it was jointly loaded with the first factor. Based on past studies and this study, AgPot may belong to Factor I. This study also found that the correlations between AgPot and other variables are not significant, so there is another possibility that AgPot reflects a structure that is unrelated to aggression. The study of Katko et al. (2010) also proposed this view. Future studies need to continue to explore the reflection characteristics of AgPot. In general, Model 1 may reflect the structure of two types of aggression (aggression at objects and aggressive objects).

The results of this study on the eleven Rorschach aggression variables developed by Liu (2004) (Model 2) reveal that about half of the correlations between all aggression variables were significant. Results of the factor analysis revealed that these aggression variables formed three distinct factors, which accounted for 67.771% of the total variance. Liu (2004) hypothesized that there are three structures of these aggression variables: aggressor, aggression behaviors, and aftermath. Aggressor includes AgC; aggression behaviors include AG, AgPot, AgPast, AAg, PAg, OAg, CAg, and AgE; aftermath includes Mh and Ph. The study results (Liu, 2004) also partly supported his hypothesis, but the aggressive behaviors were divided into active aggression and passive aggression probably. Yan (2005) studied the aggression variables proposed by Liu (2004). Although the results were different, it was found that five variables (AG, AAg, OA, AgPast, and PAg) were stable in the corresponding structure. In this study, there are three factors. Factor I include Mh, Ph, AgPast, and PAg; Factor II includes AgPot and CAg; Factor III includes AgE, AgC, and AG. Although this is a three-factor solution, there are significant differences between this study and Liu G-H's classification hypothesis (2004), the research results of Liu (2004) and Yan (2005), except that AgPast and PAg belong to the same factor. This indicates that these two variables have relatively stable and consistent intrinsic meanings.

Meanwhile, the analysis based on the results showcases that most of the variables in Factor I express the results of aggression, Factor II has potential aggression characteristics, and Factor III is more focused on aggressive behavior and content. This analysis is consistent with the logic of Liu's (2004) initial idea, which hypothesized that there are three structures of these aggression variables: aggressor (the potential of aggression), aggression behavior, and aftermath. However, the meaning and classification of individual aggression variables need to be changed. For example, in Liu's (2004)

research, AgC was interpreted as potential aggression, but this study believes it is more reasonable to reflect aggressive content and behavior.

The variables proposed by Liu (2004) are easier to understand literally, but the variable concepts and the hypothesis on the structure need further discussion. For example, the first type of aggression was named “Aggressor”, but when verifying the structure and interpretation, "Aggressor" was interpreted as the potential of aggression. If so, can “the three structures of aggression variables are potential aggression, aggressive behaviors, and aggression results (aftermath)” be directly used in the hypothesis on the structure? This is more logical. This study also confirms potential aggression is a factor of aggression. At the same time, for “Is AgC considered potential aggression or aggressive behavior?”, Liu (2004) hypothesized that AgC belongs to potential aggression, but this study indicates AgC belongs to aggressive behavior.

Moreover, the Factor I and Factor III of Model 2 obtained in this study are similar to the two factors in Model 1. For example, as MOR is divided into Mh and Ph by Liu G-H, Factor I (A1, AgPast, and MOR) in Model 1 is very similar to Factor I (Mh, Ph, AgPast, and PAg) in Model 2. From the above analysis of Model 1, Model 1 is relatively stable. Can Model 2 be further developed based on Model 1?

At present, there is little research on Model 2 and the structure of these aggression variables, and they both need further research and discussion.

In a word, this study introduces the main Rorschach aggression variables and concludes two models of Rorschach aggression variables. The structures of the two models are explored by analyzing a sample of college students. The results show the structure of Model 1 is largely supported, and the best solution for the aggression variables in this study is the two-factor solution. Subsequent studies will verify these two models in more samples. Besides, in the process of scoring AgC, there are some deviations due to cultural differences and subjective judgment differences among raters. Therefore, the standardization and localization of scoring AgC need to be further studied.

THE PRACTICAL ADVANTAGES AND LIMITS OF THIS STUDY

This study explores the classes of Rorschach aggression variables and provides the basis for constructing a Rorschach test aggression variable measurement system. The Rorschach test aggression variable measurement system is a tool for measuring aggressive behavior. Its projective test nature has strong concealment for measurement, which can effectively avoid the defensiveness of the subjects. Therefore, it can more truly reflect the subjects’ real situation. The study’s sample is limited to 90 subjects who are all healthy college students, making it not representative. In future research, more and larger samples should be used to explore and verify this measurement system of aggression variables to develop a scientific tool for measuring aggressive behavior.

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