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Editorial

SIS as an Electronic Aide to Assessment and Therapeutic Intervention

I feel honored to express my views through this Editorial. It gives me great pleasure to complete ten years as Editor in Chief of the "SIS Journal of Projective Psychology and Mental Health". While launching and running a new international journal presented significant challenges, the experience of doing so has been very rewarding both professionally and personally.

The Journal was started by handful members of the Somatic Inkblot Society (SIS), primarily from the USA and India. The SIS is a non-profit international social organization, which promotes personality development, mental health and personal growth using somatic inkblot series images now available on the Internet(http://www.somaticinkblots.com). Practitioners strive to respond to the worldwide crisis that calls for help, through their use of the SIS.

The Society decided to publish its Journal "SIS Journal of Projective Psychology and Mental Health " in November 1992. It took almost a year to complete the formality of registration, and the first issue was published in July 1994. Since then the Journal has been published regularly in January and July. The Journal is devoted to the advancement of research in the areas of projective psychology, personality assessment, psychotherapy and mental health. Broadly concerned with applications in organizational, clinical, counseling, cross-cultural and health psychology settings, the Journal is distributed to Psychologists, Psychiatrists, Medical Professionals and Professional Managers interested in the understanding and modification of human behavior.

I am particularly grateful to Dr.Wilfred A.Cassell, Founder President of Somatic Inkblot Society and the Editor who has consistently contributed research papers and helped to improve the quality of the Journal. I would also like to express my appreciation to all members of the Editorial Board and the authors for their extraordinary contributions to the journal. I am equally grateful to Editors Mrs.Padma Dwivedi, Col. D.Saldanha, Col. S.Chaudhury, Anil Agrawal and Anand Dubey for their continuous support. Paul Panek, David Sperbeck, Debra Mohn, Ailo Uhinki, Lisa Milne, Philip Greenway, Ann O' Roark, Tamera Randolph, Paola Nicolini, Anatoly Khromov, Carina Coulacoglou, C.B.Dwivedi, Rakesh Pandey, Anjana Mukhopadhyay, Mridula Mishra, M.P.Singh and Amool R. Singh were the force behind the Journal. It would be very difficult for me to publish a high-quality journal without them, and much of what you read in the journal is the result of their hard work. I have learned a lot from them all.

During its 10 years journey, the Journal has been abstracted in "Psychological Abstract", PsychINFO and has reached national and international libraries. Members of the SIS Society from different countries deserve congratulations for their efforts and contributions to this progress. The abstract of all issues of the Journal, Manual of SIS Test and updated relevant information about SIS Society are now available on our web site.

Anand Dubey, who designed and manages the web site, deserves our special congratulations for a wonderful Job.

Since projective tests in general, and somatic inkblot images in particular, are not based on verbal communication, they have power to penetrate the "outer shell" of defenses and surface behavior. The SIS images take you back in time, when you start processing the unconscious material. They use the language of dreams, visual imagery and symbolic thought. The SIS document then works as an aide in this journey. The symbolic and content analysis of the responses helps a listener to hear the inner cry of suffering individuals and in planning for the therapeutic intervention. Dr. Wilfred Cassell deserves our congratulations for such an innovative contribution.

With the on-going development of instruments such as SIS, outmoded psychological instruments, so-called "non projective tests," developed in the 20th century may soon be found in the archives of history. One example of these more innovative techniques is the SIS-Video version. SIS is the only test, which has adopted a Video version, which provides electronic patterns that can, if so desired, be transmitted to every corner on earth, and wherever else computer monitors are located. When coupled with familiarity and knowledge of the tool, the potential applications would seem limited only to the extent of one's imagination.

The increasing usage of the various forms of the SIS in different countries, as well the translation of the SIS manual into Russian and Italian, is the harbinger of its global success. Normative data is available on various populations including students, executives in public and private sectors. The use of SIS as an aide during selection and promotion interviews suggests its applicability in different realms. The SIS instrument is also becoming popular, as a therapeutic tool in India's industry. It appears that the versatility of the SIS is becoming generally more recognized and appreciated, as psychologists in many countries have also started using the SIS test.

The clinical indices are available for schizophrenics, neurotics, depressives, sexually traumatized people, drug addicts and alcoholics. Apart from being a tool for personality assessment and diagnosis; the SIS images have proven to be an excellent therapeutic tool. Various cases published in SIS Journal of Projective Psychology and Mental Health demonstrate its therapeutic power.

I sincerely invite you to join this noble venture and support it by contributing research papers and institutional membership.

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Unmasking the Devil with Projective Technique

Wilfred A Cassell, Deborah Mohn, Frank Ilardi and Bankey L. Dubey

Every night we spend several hours in the mysterious inner world of our dreams. Those with an innate sense of curiosity have long been fascinated with the meaning of the images and affect experienced during this altered state of consciousness. The present case study explores symbolism in a devil dream of a severely depressed adolescent girl hospitalized after experiencing suicidal and homicidal ideation. She was interviewed using the Rorschach and SIS stimuli as sources for visual stimulation of daytime imagery. In the present study it may be inferred that "Lucifer" embodies both her mother's abusive nature and that part of the adolescent's personality identified with the mother. Her extreme hatred and homicidal ideation was also symbolized through SIS responses.

"Not everything important is countable, and not everything countable is important"

– Albert Einstein

Every night humans spend several hours in the mysterious inner world of our dreams. It has been estimated that at any time almost half of the world's population is asleep dreaming. Those with an innate sense of curiosity have long been fascinated with the meaning of the images and affect experienced during the thousands of hours spent in this altered state of consciousness.

This project explores symbolism in a devil dream. It was reported by a severely depressed adolescent girl. She had been hospitalized after experiencing suicidal and homicidal ideation. She was interviewed using the Rorschach and SIS stimuli as sources for visual stimulation of daytime imagery. It will be shown how the analyzing the content and emotional linkage of the projected responses provided information for analysis and interpretation.

For a few illustrative moments, please leave your immediate time and space reality coordinates behind and imagine entering her inner world of dreams: " I had a dream that me and my brother were having fun and were laughing and having fun as we usually do and then all of a sudden, something swished by me like someone was running real fast by me but with no foot — but no foot — but no running sounds and then all of a sudden, something by — appeared in front of us and the lights were turned out — all the lights went out and this bright thing was in front of us and then it turned out to be Lucifer and he was saying that we were a mistake to this earth, that we were going to ruin his plans and then he threw my brother up against the wall and he made his arms spread out and his legs together. He made a slash mark from elbow to elbow and then from forehead to waist like a cross and he let him bleed and he said I will do anything just to get rid of you guys. I am over — I am overpowered and he — and I shall take over and then he killed him by — he killed my brother by sending a hole through his forehead all the way to the back and then I remember turning away and just running and there was such long darkness and then I had this feeling of being frightened like I

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knew something was behind me and not knowing what to do and not knowing what would happen next and all of a sudden something hit me on my back and then I died and I heard this cruel laughter in the background and then I woke up.

The Dream's Affect and Symbolism

Dr. C : How were you feeling throughout this dream?

T : In the beginning when I was with my brother, I was having so much fun with him, laughing. It's — like old times (The temporal reference of the dream portrays a happier time in her relationship with her brother who was two years older. He had not yet developed his own serious problems with suicidal depression. At that time they were emotionally close having endured severe psychological and physical abusive abuse by their mother.)

Dr. C : It was good.

T : Yeah. Yeah.

Dr. C : Okay. And then what happened?

T : And then I felt real frightened. I felt scared and I felt sad because my brother, he died in my dream and we are really close and that's the last thing on earth that I want to happen to him (She had been very, very alarmed about his safety.)

Dr. C : You love him a lot.

T : Yeah, and I felt frightened, like — and I felt lost.

Dr. C : Okay. And what's the dream all about? Remember we talked about it a little bit?

T : Yes. I think that the dream is... my fear of what I have of my brother dying and facing Lucifer because I done a thing with the Ouija Board (A game allegedly to communicate with spiritual forces) and what that does is it opens a door to what — well, what I've heard is it opens the door to let him come into your body and ever since I done that, I've had nightmares of him (Here she indicates that there have been a long series of devil nightmares. As will be shown later, because of wanting to forget their painful nature, she later was able to recall only one other devil dream) and I would feel scared alone or in the dark. I always had to have a light and I think it's a fear of mine and to also know the fact that he would kill my brother. But the worst part that I think is fear when he said we're a mistake, too — or we were going to ruin his plans. That's the part I didn't get.

Dr. C : What's that part all about do you suppose?

T : I don't know. I've been thinking about it for a while and I also thought about it yesterday after gym group.

Dr. C : What thoughts have you had about a...

T : I don't know. (Here she is repressing threatening memories and interpretations made available to her previously in the adolescent dream study group))

Dr. C : Please try to remember your thoughts.

T : What I thought was I was confused and not really sure.

Dr. C : What did you think about what the kids in the dream analysis group said about the dream?

T : I think I got some really good feedback about my dreams.

Dr. C : Tell me about the feedback. What was good about it?

T : Like some people gave me thoughts of what they thought my dream was about and.....

Dr. C : What were those thoughts, do you remember?

T : Not really but(Again, her mental defense mechanisms block the painful interpretation made by a peer that she had both good and evil in her personality - the devil representing the latter. None of her peers had recognized that the devil image could also symbolize the demonic qualities of her abusive mother)

Dr. C : Remember the one girl wondered about you and if you felt part of you had Satan?

T : Oh, yes.

Dr. C : Tell us about that.

T : What I thought about was like I felt that some point in my life that I did have Satan in me when I assaulted my mother and I beat her up pretty bad. She said it wasn't me, it was something else that was controlling me (In order for her mother to deny the reality of her daughter's hate, she projected onto her daughter's psychological identity a satanic label. The anger part was really "something else")

Dr. C : She said that?

T : Yeah.

Dr. C : How did you feel when she said that?

T : I felt like she was right. (Children incorporate into their identities negative labels assigned by their parents.)

Dr. C : Uh-huh (affirmative).

T : And that something did get hold of me (She readily accepted the concept of having a devilish part to herself) but then I also felt hurt because — for my mother to say that about me.

Dr. C : What way did that hurt you?

T : It felt like I wasn't a good enough daughter for her. (Her self-esteem was reduced thereby setting the stage for severe depression) and that I couldn't get a second chance.

Dr. C : Do you sense there are a good part and then a bad part within you?

T : Yes.

Dr. C : What's the good part?

T : The good part is always closeted and always willing to learn and knowing what to do.

Dr. C : And helpful to others (She frequently gave emotional support to her brother and hospital peers.)

T : Yeah.

Dr. C : And the bad?

T : The bad or having thoughts, the wanting to hurt myself or to.....

Dr. C : Tell us about those thoughts.

T : Thoughts where I think about throwing a chair through the window and grabbing a piece of glass and slitting my wrist or carving on myself all over my body(She had acted upon some of these impulses.)

Dr. C : When you came here, you'd done some of that what made you do that, do you know?

T : I was pretty upset with myself because I let some things get over or carried away and I just felt like I had to punish myself.

Dr. C : What else besides hurting yourself the bad side represents?

T : Of wanting to rebel and just do what I want and having thoughts of like just things and meanful words to other people and actually having some thoughts of wanting to hurt people.

Dr. C : What was your conflict like with your mother?

T : When I assaulted her or just threw ice at her?

Dr. C : Both.

T : My conflict with my mom was — when I assaulted her was I felt like she was provoking me and so I just finally gave in.

Dr. C : What way was she provoking you?

T : Like she was laughing at me (Like the devil in her dream.) and saying go ahead and do something so I can call the police, you just wait and see and laughing at me (At age eleven during her first hospitalization, she had learned in therapy not to entirely blame herself for her mother's abusive behavior. Consequently, she was less guilty and her self-esteem was greater. However, she still could be provoked into rage and assault by her mother's provocative psychological abuse. By contrast, she was never out of control in school or other settings)

Dr. C : It hurt.

T : Yeah.

Dr. C : Yeah. Okay. Anything more you want to say about your dream? Oh...

T : No.

Rorschach Symbolic Content Analysis

For this interview methodology, it was hypothesized that projective responses are generated from the same stream of consciousness as the imagery in nighttime dreams. Initially, she was asked to report what she saw (i.e. Real of symbolic content) and felt (i.e. Affect associated with the image) in relation to viewing the ten Rorschach cards.

Historically, Herman Rorschach as a visual basis for structured clinical interviewing originally created these. Consistent with these historical roots, the following viewing procedure was done. Initially, the cards were presented in the traditional order using them for a visual source for obtaining free association responses.

In the follow-up detailed enquiry a different order was employed for interviewing. All ten plates were placed on a table face up. She was then asked to indicate the three that she "liked the most" and the three that she "liked the least". This emotional rating procedure gives more priority to the underlying image's affect linkage than the content. Extensive projective work indicates that in clinical populations, this approach has more value than simply obtaining projective responses on simply the order decided upon by either Rorschach or the original publisher. It facilitates establishing a subjectively determined hierarchy of positive and negative emotional feelings in assessing the significance of what is seen, or avoided. When follow-up content analysis is employed the clinician has a powerful emotionally driven technique for exploring the overt, as well as the symbolic meaning of responses.

The following represents a transcription of the Rorschach structured interview:

Dr. C : Okay. I am going to show you some of these cards today. Have you seen these before?

T : Yes (She had previously been tested by a psychologist six month's earlier employing traditional administration and scoring techniques. In a later section of this article, the result of testing will be reported).

Dr. C : Okay. This is the first card, what do you see?

T : I see two animals that have wings with their feet together like they're climbing up.

Dr. C : Okay. Do you experience any emotions with it?

T : Just (She begins to experience emotional arousal but the affect linkage is quickly inhibited)

Dr. C : What are they?

T : No feelings or emotions about it (See later).

Dr. C : Okay. We'll put this over here and then your - the second one?

T : It looks like two people squatting down and having their hands together like they're in prayer.

Dr. C : Any feelings?

T : It makes me feel good because about the prayer part, like they're praying.

Dr. C : Do you pray much?

T : Yes.

Dr. C : Tell us about that.

T : I pray every morning and every night to ask for restraint (i.e. acting on her aggressive ideation) or just to talk to him — to God and to ask for to help me understand life more (Her understanding was facilitated by the projective interviewing herein being outlined.)

Dr. C : And what's your view of God as compared to the devil now?

T : Compared to the devil, I think he is a great person (Her concept of spirituality involved the personification of "God" and "Satan") and that I believe in his ways and I don't believe in Satan's ways

Dr. C : Do you ever pray in your dreams?

T : I wouldn't actually pray in my dreams but I would say oh, God, please help me out loud, stuff like that.(Her spirituality both in the day and in nighttimes dreams was important to her.)

Dr. C : That's a form of prayer, isn't it? And one would just say that in a dream?

T : When I'm scared or like when I had dreams of with fear or when I have dreams of wanting to hurt myself (In spite of ongoing psychotherapy and psychotropic medication she continued to experience occasional depressive episodes with suicidal ideation.)

Dr. C : Do you have many dreams of those?

T : I haven't had many but it — I do get them (She did not always symbolically disguise her identify in some of her self destructive dreams).

Dr. C : Yeah. Okay. Here's the third one.

T : These little parts look like monkeys in - upside down and looks like two people holding something.

Dr. C : Any idea what?

T : Like something to hold water in like a jug.

Dr. C : Okay. Thank you. And then this one is number four.

T : It looks like a dragon...and then these two parts right here look like shoes.

Dr. C : Any feelings with that?

T : No.

Dr. C : Okay. Here is the next (V)

T : This one looks like a bat. T.: And this part looks like an animal face — these parts, like I figure it's an animal but they eat ants.

Dr. C : Okay Six?

T : Looks like two men back to back like they're about yeah, like they're ready to do something.

Dr. C : Like what?

T : Like — what's that called? Like where you both … where they both step up 10 feet, not seeing each other and they turn around.

Dr. C : A duel?

T : Yeah, a duel. That's what it looks like. (At the interpersonal level, this symbolized the fighting with her mother. It portrays her conflict between identifying with the positive image of her mother and her mother's demonic side.)

Dr. C : Okay. Seven?

T : Looks like two ladies dancing.

Dr. C : Any feelings there?

T : Fun.

Dr. C : Eight.

T : Looks like two bears are climbing up a mountain.

Dr. C : Any feelings?

T : Just peacefulness.

Dr. C : Mm-hmm (affirmative) Nine?

T : Well, this orange part looks like they're two mooses and then this is — the green part looks like there are two people there holding something.

Dr. C : Like what?

T.: Like a baby (Consistent with the fact that her mother was intoxicated and not psychologically supportive through her early development years. Unconsciously she longed for nurturing.)

Dr. C : Uh-huh And how do you feel looking at that?

T.: Good. I like babies.

Dr. C : Last one?

T.: These parts right here look like they're two more men.

Dr. C : That's the sort of orange parts on the side?

T.: Yeah, with the yellow and the.....

Dr. C : On the lower left.

T. .Yes.....

Dr. C : Yeah, and the right. What do they look like?

T.: Two women like the yellow part's their hair and their heads are thrown back. Looks like they're spilling something, or it look like a blanket.

Dr. C : Any feelings?

T.: It looks like — to me it looks like — something like a Native culture (Her mother's background).

Dr. C : Okay. Thank you. Now, we've got them all — arranged here (Plates placed in order on interview desk face up) Can you pick out the three you like most?

T.: I like that one (Card II).

Dr. C : What do you like about that?

T.: Because it looks like they're praying (She identifies with the praying figures)

Dr. C : Okay. What is the second one that you like most?

T.: That one (Card VII).

Dr. C : What do you like about it?

T.: Because they're dancing and having fun (At his stage of hospitalization she was experiencing occasional positive moods and able to participate in fun hospital activities with her peers. The response provided projective data to support improvement ratings by staff)

Dr. C : Right - And the third one?

T.: That (Pointing to Card III).

Dr. C : And what about this one?

T.: Because it looks like people and they're doing every-day like things.

Dr. C : Okay. Now tell me the three you like least, the ones that — any one that would bother you or what's - what bothers you most in that?

T.: This one because it looks like a bat and I don't like bats (Card V).

Dr. C : What is there about bats that bother you?

T.: Like I don't know, it's something about them that I don't like.

Dr. C : Like what?

T.: The way they can just bite you. (She had multiple scars on her arms resulting from

self-inflicted injuries. While she did not bite herself but used knives, the "biting" symbolism is apparent.)

Dr. C : Okay. And the second one that bothers you most?

T.: This one (pointing to Plate IV)

Dr C.: What bothers you about that?

T.: Because it's a dragon (A threatening mythical creature symbolically denoting her abusive mother).

Dr. C : A dragon? And what does the dragon bring to mind?

T.: Hurtful things.

Dr. C : Like what?

T.: Like — I don't know, it looks evil.

Dr. C : In what way?

T.: Like it's just out there to get you.

Dr. C : Okay. And then the third one that bothers you?

T.: (Pointing to Plate I)

Dr C.: And what is there to fear?

T.: Because it also looks like an evil face, like it's laughing at me.

Dr. C : What does that remind you of?

T.: My mom provoking me. (Here there is no symbolic defense. What emerged in projective consciousness was a real life image of her abusive mother.)

Dr. C : Uh-huh That isn't fun when she provokes you, is it? How do you feel?

T.: I feel it's hurtful (This term is the same that she associated with the "Dragon" second most threatening Rorschach Plate. For the preceding two years, her mother had maintained sobriety. She was no longer severely beating her daughter and son. Her mother had gone to an alcohol treatment center after welfare workers threatened to take custody of her children.)

Transcription of SIS-I Structured Interview

Dr. C : No. Okay. I'm going to have this — put these away. Now we're going to look at the SIS Cards Here's your first card. What do you see there?

T.: I see a lot of things… the red parts look like two birds.

Dr. C : Uh-huh

T.: And then it looks like two people.

Dr. C : Uh-huh

T.: They're both ladies.

Dr. C : Uh-huh

T.: And looks like they're dancing.

Dr. C : And how does it make you feel?

T: Cheerful. (At times she felt joy)

Dr. C : Yeah. Okay. Now what do you see in the second one?

T.: That part looks like a heart. And this part looks like a man's head And then a whole — like his chest — head.

Dr. C : That's the top part. Any feelings?

T.: Heck no.

Dr. C : Okay. The third?

T.: Looks like a man and a woman. Looks like they're talking.

Dr. C : Any idea about what?

T.: Wait, no, doesn't look like talking, looks like they're playing a game if that was.....

Dr. C : Any feelings?

T.: Fun.

Dr. C : Number four.

T.: That top part looks like an apple and the other part looks like a lady … looks like she's like just blackened somewhere.

Dr. C : Any feelings?

T.: No.

Dr. C : Okay. Five?

T.: Looks like a turtle… and the left part — looks like parts — looks like a man's head — his head and there's his neck and chest.

Dr. C : Six?

T.: Looks like two seals and that part in the middle looks like a person, stick figure and then on a heart.

Dr. C : Any feelings?

T.: Reminds me of Valentine's Day.

Dr. C : Yeah. Well, it's not too long since Valentine's, is it?

T.: Nope.

Dr. C : Did you have fun?

T.: Mm-hmm (affirmative).

Dr. C : Good for you. Number seven?

T.: That part looks like a heart full of fun and the back part looks like a dragon. There's his neck and there's his body. (Like on the Rorschach, the "dragon' emerges again to symbolize the aggressive side of her mother and that portion of her self which hade identified with the mother's aggressive behavior). The associations, which follow further, provide insight into the meaning of the symbol.)

Dr. C : Mm-hmm (affirmative).

T.: It seems like it's a sign between evil and good (This "sign" directly symbolizes her own personality splitting and personality tendencies to dissociate).

Dr. C : Uh-huh (affirmative).

T.: Yes.

Dr. C : What part's evil, what part's good?

T.: It's the dragon's evil and the heart's good.

Dr. C : Okay Any feelings apart from that?

T.: No feelings.

Dr. C : Okay. Thank you. Here come eight.

T.: It looks like a rib cage. This is a person's body and this is like the heart.

Dr. C : Uh-huh Any feelings?

T.: I'm going to say the hospital where they like take X-rays.

Dr. C : Yeah. Here is nine.

T.: It reminds me of you know those ultrasounds where they put that down at the belly.

Dr. C : Right.

T.: That looks like twins — babies in there… Every time I see a baby, it's something like someone coming onto me. It makes me feel good.

Dr. C : How about 10?

T.: Looks like a piece of meat, like from a cow or something.

Dr. C : Any feelings?

T.: I don't like it when people kill cows or animals for their meat. That makes me real angry.

Dr. C : Number 11?

T.: Looks like a snake.

Dr. C : And how do you feel looking at that?

T.: Fear because I don't like snakes.

Dr. C : What don't you like about them?

T.: They can bite you (Her concerns about being bitten here and in the "Bat" Rorschach response represent projections about her injuries from both her mother and her own self mutilating behaviors.

Dr. C : Okay. Number Twelve.

T.: Like a dragon. Like a dragon but a good one (Here the mythic symbol denotes her "good" side. This illustrates how the immediate emotional linkage to an image can provide clues as to the symbolism).

Dr. C : How do you feel looking at it?

T.: Happy.

Dr. C : Thirteen.

T.: It reminds of a heart...going bad emotionally (Upside down).

Dr. C : And — okay. You turn it upside down and it reminds you of a heart going bad and what does it bring to mind?

T.: Like a person that's heartless like hateful. Looks like something took control of it.

Dr. C : Does that remind you of any of your own issues?

T.: Yeah.

Dr. C : Right. What?

T.: My internal depression because — when I am injured or depressed. It's like I become heartless, like I don't care.

Dr. C : And you want to hurt yourself?

T.: Yeah, or others.

Dr. C : What way do you want to hurt yourself and what way do you want to hurt others?

T: On myself, I would hurt myself physically and others I'm going to hurt them mentally.

Dr. C : And do you know why you want to hurt yourself physically?

T: Because of all the mistakes I've made in life.

Dr. C : When you cause physical pain, how does it affect you emotionally?

T.: It takes my mind off all my worries (No matter how distressing, physical pain is "out there in the body". Emotional suffering is much closer to the self-concept and therefore usually much more disturbing. Inducing somatic pain by self-mutilation can take the focus off mental distress, thereby providing temporary relief.)

Dr. C : And when you hurt others, how do you hurt others?

T.: I like to make them do everything to me, I'm happy and so I hurt them emotionally.

Dr. C : By doing what or.....

T.: Giving them the treatment that they give me like a taste of their own medicine or calling them names.

Dr. C : Do you ever hurt people that have never done anything to you?

T.: No.

Dr. C : No? Okay. Fourteen?

T.: I would say about an animal's head like it's getting a cat scan Or rainbows and makes me feel good because like they're trying to find out about animals and they're helping the animal.

Dr. C : You like animals.

T.: I love them.

Dr. C : Yeah Number Fifteen?

T.: Looks like a crocodile.

Dr. C : And how do you feel looking at it?

T.: Fearful because I don't like crocodiles.

Dr. C : Because?

T.: Because they can kill people (Another highly threatening projection.

Dr. C : Okay Sixteen?

T.: Looks like two ostriches heads.

Dr. C : And how do you feel?

T,: Nothing.

Dr. C : Okay. We're getting near the end. Seventeen?

T.: It looks like a heart with a knife going through it (Clinical experience indicates that the "Knife in the heart" symbolism can represent extreme hatred and/or homicidal impulses).

Dr. C : And how does that make you feel and what does that bring to mind?

T.: It brings to mind of hate.

Dr. C : And when you think of hate, what comes to mind?

T.: A person that doesn't care about how other people feel, just does what they want.

Dr. C : Do you ever feel hate towards your mother?

T.: Yes.

Dr. C : In what way? And towards yourself?

T.: In a way that it feels like she doesn't care for me.

Dr. C : What way see yourself?

T.: That I'm a burden to others.

Dr. C : Number eighteen?

T.: Looks like two angels.

Dr. C : Two what?

T.: Angels.

Dr. C : Uh-huh (affirmative). And how does that make you feel?

T.: Peaceful.

Dr. C : When you think of angels, what come to mind?

T.: Guardian angels that help you...

Dr. C : Do you think of your — do you have a guardian angel?

T.: Mm-hmm (affirmative).

Dr. C : Tell me about her or him.

T.: She's always near me. She's with me right now. She's with me right at the door and.....

Dr. C : And you feel more secure?

T.: Yeah, at peace and she helps me when I needed to put myself back on track. She tells me when I need to do that. (Angels personifies positive feminine maternal spirituality. They are imagined to be human like creatures with wings able to fly to heaven. This fantasy helps her and partially makes up for the poor nurturing received from her mother)

Dr. C : Good then. Are your angels ever in your dreams?

T.: No.

Dr. C : Okay. Nineteen?

T.: Looks like two birds – gooses and they're carrying babies on their necks.

Dr. C : Okay. And how do you feel looking at that?

T.: Happy (Her frequent imaging of "babies" relates to her own frustrated needs for being nurtured)

Dr. C : Right. The last one?

T.: Looks like two swordfish.

Dr. C : Two what?

T.: Swordfish.

Dr. C : Uh-huh (affirmative). Okay. And how does that make you feel?

T.: Good because I like animals.

Dr. C : Mm-hmm (affirmative). Okay. Can you tell me the three images that you like most?

(She selected five, nine and eighteen.)

Dr. C : Now tell me the three images that you dislike starting with the one that you dislike most?

T.: This one (seventeen).

Dr. C : What is there about that bothers you the most?

T.: It reminds me of hatefulness.

Dr. C : Okay. And then the next one that bothers you the most?

T.: This one (seven).

Dr. C : And what bothers you there?

T.: Reminds me of evilness.

Dr. C : All right and one more.

T.: This one (thirteen).

Dr. C : What does that remind you of?

T: Evilness and hatefulness (Her memory storage is flooded with hateful imagery).

Dr. C : Okay. This one (Presenting Plate I in the Rorschach again) reminds you of your mother's face sometimes?

T.: Yeah.

Dr. C : And do you see your mother in your dreams much or her face?

T.: No.

Dr. C : Does she appear in your dreams much?

T.: No.(Ordinarily her sleep was protected by symbolic images. While these were highly threatening, apparently they were less so than experiencing memories of her mother directly.)

Imagery Released by the SIS-II Video

Dr. C : This is like looking at what you saw in the video (Showing her the SIS Answer sheet). You indicated that you liked 16A the most and why was that?

T.: Because it reminds me of nature and I'm a nature lover. (She had retained some of her Alaskan native spiritual appreciation of beauty in the physical world)

Dr. C : Nature can be healing, can't it?

T.: Yeah.

Dr. C : And then 19-B, what did you see there?

T.: I said I'm trying to get hearts because it's — one heart is broken.

Dr. C : And what appealed to you about that?

T.: It reminded me of myself.(Here she is able to identify closely with the imagery released in the form of the projective response)

Dr. C : In what way?

T.: That I'm trying to grasp for something that I — that's broken inside of me.

Dr. C : What way have you felt like your heart's broken?

T.: Like I have no hope and some stuff.

Dr. C : You got lots of hope. I know when we feel down, we don't feel that way though but you do feel you have some hope now, don't you?

T.: Mm-hmm (affirmative).

Dr. C : Good girl. And then 28-B, you liked that one. It's a nice one. It's one of my favorites. What do you see there?

T.: A girl holding a baby (She could not conjure up the normative response depicting a nurturing mother since she never had one. She could identify somewhat with the "girl" because she had nurtured her beloved brother.)

Dr. C : And why do you like that?

T.: I love babies.

Dr. C : Next, let's look at those that you liked least. The one that bothered you most was 29-B. You indicated that it reminded you of the devil (The dream symbol under projective examination!)

It may be of significance that it emerged in projective consciousness with the SIS-II Video. This projective procedure involves relaxation instructions, hypnotic floral photographs presented in a dreamlike moving manner. In addition the light in the video presentation can approximate the visual vividness of dream imagery.)

T.: Yeah.

Dr. C : In what way?

T.: And it just seems odd because there's a man there and it's like he's going (The symbolic figure was seen as moving towards her in a threatening fashion - just like in the dream.) there is a shadow of his leg

Dr. C : Right. (In a demonic fashion, mother had repeatedly beaten her and her brother with objects such as a belt, a cooking spoon, and a coat hanger. She would find some minor excuse for the assault such as their not completing a domestic core. She would make them take down their pants and beat them on the bare buttocks. She reported that mother would sometimes smile, during the beatings, apparently enjoying the sadistic power.

She had witnessed many beating of her brother and felt great rage towards her mother as a result. The physical abuse stopped two years previously after her brother showed scars on his buttocks to a social worker. As a result, their mother was warned that she could have the children taken from her.

Dr. C : In your dreams, does the devil — what is — does this remind you of your devil dreams in any way?

T.: Mm-hmm (affirmative). It's like to some extent; he looks like that, like... you really can't see the details of him but he's sort of shaded too. That's what he looks like.

Dr. C : So that — and that — how does that affect you in your dream and then looking at it now? What emotion does it cause?

T.: Oh, hate (her mind is flooded with (hatred).

Dr. C : Hate? Yeah. Okay. And now 31-B reminded you of death. In what way does it?

T.: Because it looks like shadows of a family and — but ghost like (In her devil dream she and her were both killed. She also has had homicidal impulses when witnessing her mother beating her brother. Moreover she feared for her mother's safety when intoxicated and involved with abusive men).

Dr. C : Right. Do you think about death much in terms of your family?

T.: Not as often as I used to.

Dr. C : What way did you use to?

T.: I used to be scared of death and think of it all the time, scared that something was going to happen (Her mother had treatment and had maintained sobriety for two years prior to this hospitalization).

Dr. C : And who were you afraid would be visited by death in your family?

T.: My family my mom and my brother.

Dr. C.: How about your own death? Do you think about that much?

T.: Yes.

Dr. C : What sort of thoughts?

T.: Of killing myself.

Dr. C : And those are thoughts you had in the past or do you still get them occasionally?

T.: I — in the past. (Here, she denied current suicide ideation. However, in subsequent moments of depression it did transiently return.)

Dr. C : Right. Okay. And then 15-B was the third one and you saw.....

T.: Oh, no, that's wrong.

Dr. C : Oh. Well...

T.: No! no! no! no! no! no! no!(It is threatening to the point of stimulating a perseveration type of denial.) Take this off!! (Scratching on scribbles in 15B). Because it looks like a drawing a child would draw!

Dr. C : Uh-huh (affirmative).

T.: Because of the scribbles and everything and it have knives in there!

(Seeing knives here was very threatening. It triggered memories of past suicidal thoughts and plans to commit murder her mother by stabbing her in the heart. It also provoked recollection of homicidal thoughts towards her mother. Related to the dream in which "Lucifer" killed her brother by cutting cross like wounds, it also tapped into the complexities of the strong love-hate relationship with him. In speaking about their relationship she emphasized the positive intimacy of their early years. However, in this stage of her life, being two years older her had abandoned her for multiple superficial relationships with older girls. He had also psychologically removed himself by entering a world of impaired consciousness from alcohol and drugs. Moreover, he had been hospitalized himself for trying to kill himself. While she did not want to lose him, part of hers – the demonic side - wanted to hurt him in order to pay him back for her suffering. In her troubled mind, she wondered: What could be more devilish than to murder a brother, that in spite of his abandonment, she still loved? She was terrified that she would lose control and the sight of knives in the video overwhelmed her.)

Dr. C : And it's being thrown at what?

T.: At something.

Dr. C : What did you scratch out?

T.: I don't know.

Dr. C : Okay. And what were your thoughts sort of like?

T.: Because it makes me sad to know that kids draw stuff like that. It means they're troubled (The "kids" represent a projection of her self image.).

Dr. C : Mm-hmm (affirmative).

T.: And I don't — I like kids to be happy.

Dr. C : In the dream, the nightmare, the devil cuts your brother or how did he.....

T.: Mm-hmm (affirmative).

Dr. C : And what did he use?

T.: Well, using his hand.

Dr. C : He didn't have a knife or.....

T.: Like he — just like he had powers.

Dr. C : It was done through magic or evil magic.

T.: Mm-hmm (affirmative).

Dr. C : Mm-hmm (affirmative). Yeah. When you're cutting on yourself with a knife, how do —you know what's it like?

T.: It just relieves my emotional pain. ((Witnessing the blood and feeling the physical pain - while intense - it took her mind off the greater suffering that she was tormented with emotionally.)

Discussion

The analysis of dream imagery can often be of great clinical importance. However, consistent with Einstein's observation, such images are not readily "countable" for statistical analysis. It may be recalled that there was a significant discrepancy in the number of devil dreams reported. At one stage she spontaneously referred to many such dreams, but later she could only recall one other.

The nature of the dreaming state has since been extensively studied. This work ranges from studies which focus on the psychological to those whose orientation is primarily biological. In attempting to provide modern theoretical pathways for integrating the two levels, Rieiser(Reiser, 2001)recently surveyed the literature in attempting to conceptually bridge these two levels of enquiry. In response to Reisner's review Zuk and Zuk (Zuk &Zuk 2002) cited certain problem areas for investigators. One concerns communication difficulties since when neuroscientists and psychoanalyst talk about "the dream", "affect" or "emotion" the terms mean different things. They also observed that "REM, while an interesting phenomenon and the subject of much excitement by neuroscientists, says little or nothing about the meaning of the dream". Also, they pointed out that Reiser's review clearly indicated that "Freud's notion of the dream as wish fulfillment is either incorrect or a gross simplification that fails to take into account alternative motives".

To partially consider the conceptual framework for the present case history study, perhaps it might be helpful to cite the conclusions of a well published dream investigator, William Domhoff(Domhoff 2002). His research has relied heavily on content analysis approaches (Domhoff,G.W., 1996,1999,2000). He recently summarized certain of his observations as follows: "Based upon solid empirical studies concerning (1)the neural network that makes dreaming possible, (2) the development of dreaming in children

and (3)the everyday content of thousands of dream reports, it is unlikely that dreaming is “necessary” or that any clinical theory of dreams has any value beyond that dreams contain some psychological information”.

Recognizing the complexity of the field and the multiple methodological problems, it is hoped that the “Lucifer” dream under consideration provides in Domhoff’s terminology “some information”. For years this adolescent girl was severely abused by her Native Alaskan mother. Her culture is disintegrating rapidly. There is a high prevalence of alcoholism and violence related behaviors. Adolescent males have the highest rate of suicide in America so her fears for her depressed brother were justified.

During childhood development multiple sources of sensory input from this abuse were recorded neurochemically. However, the secondary recall of such traumatic images apparently had failed to appear in her recurrent “nightmares”. When asked on several occasions if she ever relived any of the terrible abusive scenes involving herself and her brother, she consistently said: No! Of course, there is no way to really know if this was the case. Perhaps she was aware of such dreams but because of emotional discomfort she did not want to report them. Alternatively, she may have been aware of them shortly after they occurred and then “forgot” them because of anxiety induced neural inhibition.

In any case, she was terribly tormented by intrusive memories of the abusive scenes during the day. In sharp contrast, her sleep was protected by symbolic images. One of these was the vision of “Lucipher”. No matter how terrifying this was, apparently it was less threatening than activating from memory storage real life images of her mother’s abuse.

Apart from the dream under scrutiny, she recalled only one other terrifying dream of the devil. She was able to recall that this occurred at age eleven: “I was in my closet and the devil appeared. He was small than and his brain was exposed, I was twisting a hanger around in his brain”. This disturbed her sleep when she was first attempting to understand her traumatic family life. Prior to therapy she was confused and mentally preoccupied: “Why does mother hate me so much? What did I do to deserve the beatings? I must have deserved them. I should hurt myself. I don’t deserve to live. I should kill myself etc.”

Her mental preoccupation with these issues caused her to focus on her own brain. She introduced this anatomical awareness into her dream imagery along with an object (the “hanger”) that she just had beaten with by her mother. This dream preceded her first hospitalization and suicidal behavior. At the time she was first beginning to get the almost delusional belief that some evil force from the devil was penetrating her nervous system accounting for her own demonic thoughts and murderous fantasies.

Sometime she would get angry at herself and would punish herself by self mutilating behaviors with knives. Her extreme arousal in viewing SIS-II video Image 15B depicting “Knives” was understandable. This irrational thinking surfaced in the early stages of her fourth hospitalization in the “Lucifer” dream. It may be recalled that she related the

onset of her sense of her body image being penetrated to when she originally played a Ouija Game. In association with the fundamental Christian mind distorting dogma that she had been exposed to in a Seventh Day Adventist church; she erroneously believed that the demonic forces had entered her body.

Apart from the devil symbol, many other threatening symbols flooded her dreams. Examples of such symbolic material spilling over into projective consciousness with the Rorschach in her third hospitalization six months earlier follow:

Card I"A bear trying to escape from a very strong woman, she looks like my mother". Here she identified with the "bear" and the "very strong woman" symbolized her image of her mother as being very powerful and threatening.

Card II "Two big animals playing patty cake. One is a bear and he looks like he is wounded because of the red blood". The bleeding "bear" symbolized her own injuries from the severe beatings.

Card IV "A monster, this way it looks like a dragon here are his eyes, he's got horns and wings" these two responses could symbolize her abusive mother. It also could have depicted that part of her emerging personality that was identifying with the demonic side of her mother.

She also imagined it to be an "explosion with smoke coming everywhere" and gave a similar response to the next card. Both responses symbolized her memory of violent domestic scenes.

In addition and reminiscent of her attempting to hide in the closet from her abusive mother in real life and the symbolism inherent in running from Lucifer in her dream she this Card also evoked imagery as follows: "It could also be a tunnel, something that you could hide in," On card VIII the violent imagery continued to be released in projective consciousness as "A volcano with lava exploding". On Card X this theme continued with the response ""This is a building, there is water below, in front these are fireworks going off, it is colorful , like fireworks going off, looks explosive here."

Like many fundamental Christians, she had learned to personify the "Devil" and referred to him as "Lucifer". To such concrete thinking people, it probably would seem pointless if not heresy in her church - to try to understand what "Lucifer" symbolized.

This sharply contrasts with clinicians who explore dream symbolism as an integral part of the diagnostic/treatment process. In this analytic quest those who employ the power of projective methodology are much more likely to unmask the "Devil". In the present study it may be inferred that "Lucifer" embodies both her mother's abusive nature and that part of the adolescent's personality identified with the mother.

With regard to the latter, the responses revealed this side of her. One example was her response to SIS-I when she detailed how she had the capacity not only to hurt herself but others. Her extreme hatred and homicidal ideation was also symbolized in the "knife in the heart" response.

Apart from the satanic, there are many other forms of symbolic imagery in threatening

dreams. For example, children frequently observe dream of grotesque human or animal like biting apparitions. They commonly label “Monsters”. The specific form of these is strongly influenced by the reality of their particular culture. However, this earlier primitive oral aggressive imagery is replaced. This is especially true of severely disturbed adolescents with poorly controlled aggressive impulses. Perpetrated by the brain washing techniques of fundamentalist religious leaders satanic symbols can emerge in dream imagery.

The concrete thinking implicit in personifying the threatening humanoid figures as the “Devil” can be extreme. For example, satanic cults have evolved historically which in an organized fashion worship “Satan”. Personal identities of such members may be closely linked with socially unacceptable sexual and aggressive behavior. When their actions become day residual for night time dreams, a cycle of evil imagery and behavior becomes operational. Its reinforcement by the saturation of violence in the media amplifies the system.

Studies of anxiety laden dreams employing projective techniques can provide insights into the origins of violence in children and adolescents. Hopefully, such investigations could provide new approaches for developing more effective methods of early detection and prevention. Young people need to have their threatening dreams taken as a possible early symptom of trauma. They need to be listened to with compassion and serious consideration by members of the healing profession, as well as authority figures in education, religion and politics.

This is especially true for those from dysfunctional families where guilt and ignorance may allow their parents to dismiss their suffering by denial and rationalization. For example, the abusive mother in this case history study argued that: ”I did not abuse my children, they were just getting the punishment they deserved” and in regard to her daughter’s terrifying dreams “They mean nothing, all children have nightmares!”

Her rationalization was not challenged. She herself was a victim of childhood family abuse. Such a generational pattern of abusive can only be broken through early intervention therapies – including the use of projective techniques.

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Can Color Preferences Reflect Personality Characteristics?

Christopher Colt, Lyn McIntosh and Philip Greenway

Research on colour preferences has yielded few significant findings, possibly due to the complexity of factors, which influence an individual's reaction to colour. The present study had for its aim to investigate the projective aspects of colour preferences. Subjects indicated their preferences for a series of coloured gradients. The findings indicated that colour preferences, in terms of thier relationship with personality variables, varied according to the attitude, which subjects took towards specific pairs of colours. For example, subjects who reported that they disliked both images were more likely to score more highly on a NEO-like factor, Agreeableness, than those who reported less often that they disliked both images. The discussion indicated that as a preliminary study the results needed to be replicated.

In their review of colour psychology, Whitfield and Wiltshire (1990) commented that although it was a common assumption that preferences for colours reflected accompanying affect, the evidence from research literature did not really support it. They pointed out further that previous research did indicate that colours have been shown to exhibit a variety of findings, including 'meaning responses' and attitudes, such as reflect cultural influences, cognitive style, personality and training. Whitfield and Wiltshire argued strongly that preferences made in laboratory studies hardly reflect the actual, preferential behaviour that people use in the selection of everyday objects. So many variables influence such preferences that it is practically impossible to allow for them in a systematic, laboratory style of experiment. Laboratory studies, such as those using colour chips, seem to have contained the implicit assumption that if one 'removes all reference to normal categories of objects, such as clothing and furnishings that preference for colour would somehow manifest itself in an unadulterated form.' This seems to be a painly untenable idea.

Valdez and Mehrabian (1994), on the contrary, followed the laboratory tradition in their investigation into the effects of colour emotion. They criticized previous researchers on two main grounds. First, they often failed to give adequate specifications or controls of colour stimuli, or used 'non-standard or unspecified lighting conditions'. Second, they frequently failed to use sufficiently reliable, valid, or comprehensive measures of emotional responses to colour stimuli. They themselves studied emotional reactions to colour hue, saturation and brightness in relation to the Pleasure-Arousal-Dominance model, developed from the Osgood, Suci and Tanenbaum, (1957) three basic dimensions of meaning. Mehrabian and Russell (1974) had suggested that these dimensions could provide a general description of emotions. In their 1994 study, they criticized previous investigations on methodogical grounds, arguing that, in earlier studies, colour samples had been imprecisely described, were not standardized, and did not take into account the effects of brightness and saturation. They found that emotional reactions to colour hue tended to be weak. However, these were, that blue,

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blue-green, green, purple-blue, red-purple, and purple, were the most pleasant, yellow, green-yellow and red-yellow were least pleasant, with red being rated at an intermediate value. Their results for arousal indicated that the mean level for green-yellow was greater than for purple-blue, yellow-red and red-purple. The mean arousal level for blue-green was significantly greater than that for purple-blue. With regard to dominance, they reported that green-yellow was rated as more dominant than red-purple. Finally they found that pleasure reactions increased as samples ranged from black, through greys of increasing brightness to white. Gelineau (1981) had subjects rank order a set of colour stimuli into seven categories from least to most prefered. The conditions were standardized as to lighting conditions and for the hue and lightness of Munsell colour papers. She found no relationships between preferences for colours and the five needs measured by the Jackson Personality Research Form, i.e. needs for achievement, harm avoidance, social recognition and exhibition. She concluded that knowledge of subjects' personality profiles did not provide informaiton about their colour preferences. Ireland et al (1992), in a study similar to Valedez and Mehrabian, found that a high anxiety subjects. On interpretation given for their findings was that pastel shades are less socially noticeable and therefore less likely to draw attention to the highly anxious individual.

Other reseachers have attempted to discover meanings associated with colour preferences. For example, Nolan, Dai and Stanley (1995) investigated the relationship between self-reported depression and colour preference. In part, they based their study on Williams and Bulty (1986) who reported that colour naming of negative versus neutral words was more stable in people who had been 'depressed to some extent' for twelve months. Nolan et al asked their subjects a number of questions about colour, such as, 'Which colour best describes your mood ?" and correlated the answers with scores on the Beck Depression Inventory. Depression scores were found to reflect, the connection between colour and mood, preference for a favourite colour, and naming a colour which best represented the subject. High scorers on the Beck inventory tended to choose black or brown. The authors also reported both race and gender differences. Holmes and Cooper (1984) asked subjects to give their favourite colour for a number of items such as an automobile, house or carpet. They found that subjects' overall, favourite colour, taking account of how many times they chose it across all the objects they were asked to decide on, was unrelated to the colours they chose for particular objects. They concluded that colour preferences contain few if any indicators of personality when used in a contrived situation. The main aim of the present study was to construct images to emphasize the relational aspect in colour preferences. Both colours being compared were included in each of two images. Each consisted of concentric areas of colour, but both position and the area covered by each varied. The colour, which occupied the central position in the image on the left, covered only a third of the image, while the peripheral colour covered two thirds. These diferences between the colours in each image. The relational aspect was increased by not using simple colours but rather a gradient between the two. The images were presented on a computer monitor to give them more ecological validity and made to look like the visual tiles and

patterns, which feature in graphics programs, such as Adobe Photoshop, rather than simple patches of plain colour. In order to faciliate the involvement of personality, subjects answered supplementary questions, namely, whether they liked or disliked both images. These were deliberately made a non-compulsory questions, on the assumption that only subjects who felt relatively storngly in a negative or positive way would answer them. Subjects were encoursed in the way to develop both an attitude to the test and to the task of making preferences.

Method

Subejcts

The subjects were 57 adult volunteers from the general community, 21 males and 36 females. All were adult volunteers between the ages of 20 and 60 years. None of them reported any psychiatric history.

Procedure

Each subject completed two tasks, the colour gradients test and an adjective check list. The first was a test in which each subject chose between a series of pairs of coloured images. These were constructed in Adobe Photoshop 6 and arranged in Microsoft FrontPage to form a series of linked pairs, displayed on an ordinary 15 inch computer monitor. As mentioned earlier, the images were constructed in a way, which attempted to elicit the relational character of colours. Two images were presented together and the subjects were asked to express a preference for one or the other. Each image consisted of a radial gradient, the central colour being adjusted to take up one third of the image area and the peripheral colour two thirds. In each pair, the central colour in one became the peripheral colour in the other. Thus, both colours were represented in each image. Although the gradient was radial, the image itself was set in a square 65mm x 65mm. Thus, the central colour was recognisably e.g. green, but gradually changed until it became the outer colour, e.g. red. Each of the images was the inverse of the other. Thus as mentioned earlier, the colour, which was central in one, became the peripheral colour in the second. The images appeared on the monitor as side by side on a black background.

Colours were identified by their Photoshop 6 numbers, with hue (h), saturation (s) and brightness (b) noted. They were gold, B17C09, h=41, s=95, b=69; yellow, FFF500, h=58, s=100, b=100; orange, F75812, h=18, s=93, b=97; magenta, EC1965, h=338, s= 69, b=93; green, 1F6607, h=105, s=93, b=40; turquoise, 16C8C8, h=180, s=89, b=73; blue 1B0849, h=258, s=89, b=29; red, F50909, h=0, s=96, b=96; violet, 58066B, h=288, s=94, b=43; pink, FF9CCE, h=330, s=39, b=100; and, white, FFFFFF, h=0, s=100, b=100.

Each colour was paired once with every other colour. The total number of times a colour could be chosen was ten. For each pair of images the subjects answered three question; first, ‘Which of the two images do you prefer ?’, second, ‘Do you dislike both images ?’, third, ‘Do you like both images ?’. The order in which the pair were presented was randomised, as was the position, right or left of each image.

Three variables were calculated for each colour; first, the number of times each colour was chosen regardless of whether the subject had indicated that he or she disliked both images; second, the number of time each colour was chosen, when the subject had indicated that he or she disliked both images; and third, the number of times each colour was chosen, when the subject had indicated that he or she like both images.

The Adjective Checklist

This consisted of 100 unipolar markers developed to produce groups of adjectives, which represented the five factors like those of the NEO-like PI. Goldberg, (1992). The clusters of adjectives for each of the NEO-like factors were as follows.

Factor 1 Surgency, (Extraversion)
Positive
Extraverted; Talkative, assertive, verbal, energetic, bold, active, daring, vigorous, unrestrained.
Negative
Introverted, shy, quiet, reserved, untalkative, inhibited, withdrawn, timid, bashful, unadventurous.

Factor 2 Agreeableness
Positive
Kind, cooperative, sympathetic, warm, trustful, considerate, pleasant, agreeable, helpful, generous.
Negative
Cold, unkind, unsympathetic, distrustful, harash, demanding, rude, selfish, uncooperative, uncharitable.

Factor 3 Conscientiousness (Dependability)
Positive
Organised, systematic, thorough, practical, neat, efficient, careful, steady, conscientious, prompt.
Negative
Disorganized, careless, unsystematic, inefficient, undependable, impractical, negligent, inconsistent, haphazard, sloppy.

Factor 4 Emotional Stability (as against Neuroticism)
Positive
Unenvious, unemotional, relaxed, imperturbable, unexcitable, undemanding.
Negative
Anxious, moody, temperamental, envious, emotional, irritable, fretful, jealous, touchy, nervous, insecure, fearful, self-pitying, high-strung

Factor 5 Intellectuality (Openness)
Positive
Intellectual, creative, complex, imaginative, bright, philosophical, artistic, deep innovative, introspective.
Negative

Unintelligent, unimaginative, uncreative, simple, unsophisticated, unreflective, imperceptive, uninquisitive, shallow.

The subjects rated each of these adjectives on a nine point scale, 1 being extremely inaccurate, and 9 being extremely accurate as a description of themselves. The instructions were : 'Please use this list of common human traits to describe yourself as accurately as posible. Describe yourself as you see youself at the present time, not as you wish yourself to be in the future. Describe yourself as you are generally or typically, as compared with other persons you know of the same gender and age.

Results

The total number of times a subject chose each colour was calculated. The resulting frequency distributions were examined and two groups formed for each colour, one representing a high frequency the other a low frequency of being chosen. These groups formed the categorical variable in a series of one-way ANOVAs carried out for each colour on each of the five Big Five or NEO-like factors, both positive and negative. Further, four separate series of ANOVAs were carried out for each of four conditions, that is, first not taking account of the subject's attidute to both images, second, isolating instances when the subject reported not liking both images, third, isolating instances when the subject reported not liking both images, third isolating instances when the subject reported liking both images, and fourth isolating instances when the subject reported liking both images, and fourth isolating instances when the subject either that he or she or disliked both images. The findings are covered in four sections corresponding to the conditions just outlined.

1. The subject's attitude to the image is not taken into account: Table 1 gives the description statistics for the ANOVAs which were significant for this condition, and Table 2 gives details for each.

   Prefering gold, when it occupied a peripheral positive, Extraversion. Preferring megenta, when central rather than peripheral, was associatd with higher scores on factor 3 Negative, Negligence. Preferring violet, when peripheral rather than central was associated with higher scores on Factor 2, Positive Agreeableness, and with high scores on Factor 5, Positive, Intellectuality.

2. The subject reported disliking both images: Table 3 gives the descriptive statistics for the ANOVAs, which were significant for this condition, and Table 4 gives details for each. Preferring gold or orange, when peripheral rather than central, was associated with higher scores on Factor 1, Negative, Introversion. Preferring red, when central rather than peripheral, was associated with higher scores on Factor 2, Positive, Agreeableness, and on Factor 5, Negative, Lacking Intellectuality. Preferring magenta, when peripheral, was associated with higher scores than preferring it when central on Factor 2, Positive, Agreeableness, and Factor 4, Negative, Emotional Instability. Preferring violet, when peripheral, was associated with higher scores on Factor 2, Positive, Agreeableness. Likewise, preferring blue, when peripheral, was associated with higher scores on Factor 5, Positive, Intellectuality.

Table 1

The Means and Standard Deviatons for the Comparisions of Colors, when Centrally or Peripherally Located, Which were Associated with the NEO-LIKE Factors Without Taking Account of Whether the Subject Reported Liking or Disliking Both Images

Color	NEO-LIKE Factor	Number of times Chosen when the color is peripheral	Score on NEO-LIKE factor Peripheral Color			Number of times chosen when central	Score on NEO-LIKE factor Central Color		
			N	M	SD		N	M	SD
Gold	F1 POS	0 or 1	19	49.63	9.50	0	36	55.44	8.04
Magenta	F3 NEG	2 or more	22	30.32	10.47	1 or 0	35	37.14	12.25
Violet	F2 POS	1 or more	34	75.59	8.01	0	23	70.43	7.15
Violet	F5 POS	1 or more	34	68.35	8.87	0	23	63.65	6.90

Table 2

ANOVA Results for Colors Associated with the NEO-LIKE Factors Without Taking Account of Whether the Subject Liked or Disliked Both Images

Color	NEO-LIKE Factor	df	Mean Square	F	Sig.
Gold	F1 POS	1/53	420.21	5.72	.020
Magenta	F3 NEG	1/55	629.19	4.67	.035
Violet	F2 POS	1/55	356.09	6.03	.017
Violet	F5 POS	1/55	303.16	4.57	.037

The total number of times a subject reported disliking both images for all colours was calculated, (the variable was labelled T dislike). When this variable was subjected to a median split, subjects reporting that they disliked both images 14 or less times scored significantly higher on Factor 2, Positive, Agreeableness and on Factor 5, Positive, Intellectuality, than those who reported disliking both images 15 or more times. The latter subjects scored significantly higher on Factor 2, Negative, Disagreeableness.

Table 3

Descriptive Statistics for Colors Associated with the NEO-Like Factors when the Subject Reported Disliking Both Images

Color	NEO-LIKE Factor	Number of times Chosen when the color is peripheral	Score on NEO-LIKE factor Peripheral Color			Number of times chosen when central	Score on NEO-LIKE factor Central Color		
			N	M	SD		N	M	SD
Gold	F1 NEG	1 or more	37	47.02	11.69	0	18	37.83	15.51
Red	F2 POS	1 or more	38	74.82	6.03	0	17	69.83	10.73
Red	F5 NEG	1 or more	38	24.34	6.96	0	17	30.18	8.98
Orange	F1 NEG	1 or more	37	47.02	11.69	0	18	37.83	15.51
Magenta	F3 POS	1 or more	37	69.65	8.91	0	18	62.00	13.35
Green	F1 NEG	2 or more	36	41.11	14.22	1 or less	21	48.86	11.94
Green	F2 POS	2 or more	36	75.11	6.65	1 or less	21	70.67	9.47
Green	F2 NEG	2 or more	36	29.25	8.31	1 or less	21	35.38	10.76
Green	F4 NEG	2 or more	36	63.42	20.32	1 or less	21	77.29	19.05
Violet	F2 POS	1 or more	38	75.24	6.89	0	17	68.82	8.83
Blue	F5 POS	1 or more	39	68.64	8.10	1 or more	16	60.56	5.84
Tdislike	F2 POS	14 or less	24	76.50	6.31	15 or more	33	71.27	8.49
Tdislike	F2 NEG	14 or less	24	28.50	7.47	15 or more	33	33.70	10.56
Tdislike	F5 POS	14 or less	24	70.33	8.93	15 or more	33	63.64	6.83

Table 4

ANOVA Results for Colors Associated with the NEO-LIKE Factors when the Subject Reported Disliking Both Images

Colour	NEO-LIKE Factor	df	Mean Square	F	Sig.
Gold	F1 NEG	1/53	1023.509	6.017	.017
Red	F2 POS	1/53	299.667	4.981	.030
Red	F5 NEG	1/53	399.813	6.864	.011
Orange	F1 NEG	1/53	1023.509	6.017	.017
Magenta	F3 POS	1/53	708.404	6.374	.015
Green	F1 NEG	1/55	795.803	4.407	.040
Green	F2 POS	1/55	261.988	4.311	.043
Green	F2 NEG	1/55	498.543	5.795	.019
Green	F4 NEG	1/55	2551.175	6.463	.014
Violet	F2 POS	1/53	483.097	8.520	.005
Blue	F5 POS	1/53	740.434	12.518	.001
Total	F2 POS	1/55	471.86	8.29	.006
Total	F2 NEG	1/55	358.79	4.05	.05
Total	F5 POS	1/55	623.171	10.302	.002

3. The subject like both images : Table 5 gives the descriptive statistics for the ANOVAs, which were significant for this condition, and Table 6 gives details for each.

Table 5

Descriptive Statistics for Colors Associated with the NEO-LIKE Factors when the Subject Reported Liking Both Images

Color	NEO-LIKE Factor	Number of times Chosen when the color is peripheral	Score on NEO-LIKE factor Peripheral Color			Number of times chosen when central	Score on NEO-LIKE factor Central Color		
			N	M	SD		N	M	SD
Magenta	F1 POS	1 or more	34	56.44	8.20	0	21	48.57	8.02
Magenta	F1 NEG	1 or more	34	40.82	13.86	0	21	49.19	11.82
Magenta	F3 POS	1 or more	34	69.88	8.70	0	21	62.71	13.11
Magenta	F5 POS	1 or more	34	68.32	8.58	0	21	63.00	7.34
Green	F2 POS	2 or more	34	71.62	7.49	1 or less	23	76.22	8.15
Pink	F1 POS	2 or more	32	50.34	8.60	1 or less	23	57.73	7.64
Pink	F1 FEG	2 or more	32	48.00	13.02	1 or less	23	38.48	12.74

Table 6

ANOVA Results for Colors Associated with the NEO-LIKE Factors when the Subject Reported Liking Both Images

Color	NEO-LIKE Factor	df	Mean Square	F	Sig.
Magenta	F1 POS	1/55	804.002	12.163	.001
Magenta	F1 NEG	1/55	908.803	5.276	.026
Magenta	F3 POS	1/55	667.021	5.960	.018
Magenta	F5 POS	1/55	367.904	5.559	.022
Green	F2 POS	1/55	290.268	4.817	.032
Pink	F1 POS	1/53	731.874	10.848	.002
Pink	F1 NEG	1/53	1213.243	7.286	.009

Preferring magenta, when peripheral, was associated with higher scores on Factor 1, Positive, Extraversion, Factor 3, Positive, Conscientiousness, and Factor 5, Positive, Intellectuality, and when central with higher scores on Factor 1, Negative, Introversion. Preferring green, when peripheral, was associated with higher scores than when it was central, was associated with higher scores than preferring it when peripheral on Factor 1, Extraversion, while preferring it when peripheral was associated with higher scores on Factor 1, Negative, Introversion.

The subject did not report either liking or disliking both images : Table 7 gives the

descriptive statistics for the ANOVAs, which were significant for this condition, and Table 8 gives details for each. Preferring yellow, when peripheral, was associated with higher scores on Factor 1, Positive, Extraversion, and preferring it, when central, was associated with higher scores on Factor 2 Negative, Disagreeableness, and on Factor 3, Negative, Negligence. Preferring violet or blue, when peripheral, was associated with higher scores than preferring them when central on Factor 1, Positive, Extraversion.

Table 7

Descriptive Statistics for Colors Associated with the NEO-LIKE Factors when the Subject Did Not Either Liking or Disliking Both Images

Color	NEO-LIKE Factor	Number of times Chosen when the color is peripheral	Score on NEO-LIKE factor Peripheral Color			Number of times chosen when central	Score on NEO-LIKE factor Central Color		
			N	M	SD		N	M	SD
Yellow	F1 POS	5 or more	24	56.83	8.43	4 or less	31	50.81	8.53
Yellow	F1 NEG	5 or more	24	39.12	13.68	4 or less	31	47.77	12.56
Green	F2 NEG	1 or more	30	34.63	8.42	0	27	28.04	9.92
Green	F3 NEG	1 or more	30	38.03	11.92	0	27	30.59	10.97
Blue	F1 POS	1 or more	26	56.46	7.65	0	29	50.72	9.23
Violet	F1 POS	1 or more	30	55.70	8.74	0	25	50.72	8.55

Table 8

ANOVA Results for Colors Associated with the NEO-LIKE Factors when the Subject Reported Liking Both Images

Color	NEO-LIKE Factor	df	Mean Square	F	Sig.
Yellow	F1 POS	1/53	491.36	6.82	.012
Yellow	F1 NEG	1/53	1002.23	5.88	.019
Green	F2 NEG	1/55	618.316	7.347	.009
Green	F3 NEG	1/55	786.760	5.971	.018
Blue	F1 POS	1/53	451.273	6.202	.016
Violet	F1 POS	1/53	338.187	4.516	.038

Discussion

Table 9 presents a summary of the associations between colour preferences and NEO-like dimensions. The four conditions, under which preferences were measured, had signifciantly different effects in terms of their associations with the NEO-like dimensions.

Table 9

Summary of the Associations Between the NEO-like Factors and the Positions of the Colours in the Test Images for the Four Conditions Reflecting the Subjects' Attitude to Both Images; (1. a simple choice not taking subjects' attitude into account; 2. subjects' disliking both images; 3. subjects liking both images; and 4. subjects not indicating that they had an attitude to both images.)

NEO-like Factors Positive Pole										
Both Images	Extraversion		Agreeablness		Conscientiousness		Emotional Stability		Intellectuality	
	Colour Chosen		Colour Chosen		Colour Chosen		Colour Chosen		Colour Chosen	
	central	eriphera	central	eriphera	central	eriphera	central	eriphera	central	eriphera
Simple choice	gold			violet						violet
Dislike			red	green violet		magenta				blue
Like	pink	magenta		green		magenta				magenta
Do not indicate		yellow blue violet								
Do not indicate	yellow			green		green				
Like both	magenta	pink								
Dislike both	green	gold orange	green				green		red	
Simple Choice					magenta					
	central	eriphera	central	eriphera	central	eriphera	central	eriphera	central	eriphera
	Colour Chosen		Colour Chosen		Colour Chosen		Colour Chosen		Colour Chosen	
	Introversion		Disagreeable-ness		Negligence		Emotional Instability		Lacking Intellectuality	
NEO-like Factors Negative Pole										

When subjects reported that they liked or disliked both images, one may assume that they felt positive or negative to both images. However, when subjects did not report their attitude to both images it is possible either that they approached the task making a minimal effort or that they simply liked the image they chose and had no feeling about both images. Simply taking whatever colour subjects preferred without consideration of their attitudes ignores information relevant to the process of making a preference. Colour is likely to carry an emotional valence for people, which is linked to their attitudes. Taking account of it may tap into one of the crucial process influencing, which affect is

evoked in an individual's personal reactions to specific colours, especially when context is taken into account.

Anecdotally, the position of a colour, central or peripheral, affected the qualitative 'feel' of the image. The central positioned colour was more figure-like than ground like. A darker or less bright colour, such as blue or violet, in the centre seemed to give a different, more concentrated focal feel to the image, pulling the attention in to it. When a brighter colour was central, the 'feel' was more expansive, giving the effect of radiation of brightness from a source.

Subjects' attiude to both images appeared to affect preferences. For example, when positive, both pink and magenta were associated with Extraversion and Introversion, but the relative position of each was important. Preferring magenta, when peripheral, was associated with Extraversion and, when central, with Introversion. Pink had exactly the opposite association with these two factors. Conversely, when subjects' attitude was negative violet, blue and yellow in the peripheral position were associated with Extraversion, and gold and orange in a peripheral position were associated with Introversion. Other examples of how the associations of specific colours with personality variables vary with attitude are shown in Table 9. Quite clearly, particular colours are not associated with personality variables in a straightforward way.

There may be two more general findings from an examination of Table 9. First the peripheral colour, taking account of the different subjects' attitude, may correlate more with the positive poles of the five personality factors than the central colour. Second, the purple end of the spectrum, represented in this study by violet, blue and magenta, when peripheral, seem to be associated with positive personality variables. Green was largely associated with negative personality variables.

The attitudinal factor needs further exploration, but there is some evidence that it is both non-specific and specific. The non specific aspect was best picked up when the trials for all the colours, in which subjects expressed dislike for both images, were summed, and those with low scores for this variable were compared with those with high scores. The variable was T dislike, (see Table 3). The low scores group had higher scores on the NEO-like factor, Agreeableness, than the high scores group.

Conversely the high scores group had significantly higher scores on the factor, Disagreeable, In other words, subjects who tended to like both images were more cooperative and those who reported disliking both images were more uncooperative. Individuals, who score highly on Agreeableness, may be described as altruistic, sympathetic and helpful. Those, low on this factor, are egocentric, sceptical of others and competitive. Subjects low on T dislike also scored higher on Intellectuality than those low on T dislike and could be described as intellectually cariosity and involvement. Anecdotal comments of subjects seemed to indicate that they had an active attitude to the task, often criticizing some of the images.

If these findings can be repeated, what attitude subjects have towards the images they have to compare, is likely to affect their preference and its association with some

personality characteristic. It is clearly premature to discuss further the meanings of colours in terms of personality characteristics, until these findings have been replicated.

Several qualifications need to be made about this study. First, it was exploratory in attempting to investigate the relationships between colours and personality characteristics in a way, which was more than a simple preference between plain colours. Secondly, the sample size was too small. To get high and low groups of sufficient size for reliable comparisions many more subjecs would be required. One finding, for Tdislike, was based on a large number of intra-subject observations. Thirdly, the study was carried out on computer moniotrs, which obviously varied in colour calibration, since subjects often completed the test in their own homes. Also, the files were saved as JPEGS, a procedure, which leads to deterioration both in colour accuracy and pixalation. Nevertheless, the study was a test of personality, rather than a laboratory investigation. Any test based on colour will be more practical, if it is robust enough to tolerate such variations.

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SIS-I Profile and its Correlation with Rorschach in Manic Patients

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SIS-I and Rorschach were administered on a group of 30 male manic patients drawn from Institute of Mental Health & Hospital, Agra. Raw scores on common indices of the tests were converted into percentages. Percent scores of the indices on SIS-I for normal subjects were taken from a previous study (Kumar et.al.2001). The critical ratios were computed on SIS-I scores of Manic and Normal subjects. The results revealed that Anatomy, Typical and Atypical responses were able to differentiate the groups. Pearson's product moment correlation was calculated on the percent scores of Rorschach and SIS-I on common indices in manic patients. The obtained co-efficient of correlations were significant on all the indices except for Most Typical responses.

Somatic Inkblot Series-II is becoming popular as a diagnostic and therapeutic instrument. The normative studies have been conducted on a large number of psychiatric and medical conditions. The discriminating power of the SIS-II has been demonstrated in many studies (Cassell, 1994, Cassell and Dubey, 2002, 2003, Kumar, 2000). The card Form of the series SIS-I is not so popular in India. It has been translated in Russian and Italian. So far it has been used on patients with Coronary Artery Disease (Rathee et.al. 1994), Drug Addicts (Mukhopadhyay et. al 1996) Normal Subjects (Rathee & Singh, 1996) Obseits (Cinzia & Ferro, 1998), Anxiety Disorder (Sarkar et.al. 1999), Achondroplasia (Khromov, 2001). However, it seems that the Card Form has not been administered on Bipolar Affective Disorder. The present study is a modest attempt to find out the indices discriminating manic patients from normal subjects on SIS-I and to correlate common indices of SIS-I and Rorschach in manic patients.

Material and Method

Thirty male manic patients were drawn from Institute of Mental Health and Hospital, Agra. Thirty normal subjects matching with the patients group were taken from a previous study (Kumar et. al. 2001) for comparison. The sample characteristics are displayed in Table-1. Rorschach and SIS-I were administered to the subjects by the second author. The scoring of Rorschach protocols was done through Beck's Method. The percentage was computed for each common index on Rorschach and SIS-I. Critical ratio and product moment correlation were also calculated on the percent scores of Rorschach and SIS-I in manic patients.

Results and Discussion

Mean, Standard Deviation and Critical Ratios of the study samples are given in Table-2. The values of CR are significant on Anatomy, Typical and Atypical indices.

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Maniocs were found to have significantly lower Anatomy and Typical scores as compared to the normal group. Atypical score is higher among maniocs. The SIS is not a completely unstructured test like Rorschach and images are embedded with anatomical structures. Because of obvious anatomical structure the images evoke more anatomical content in normal subjects. In an earlier study, Srivastava (2002) found more Anatomical content in normal subjects. The departure of Anatomical content from the normal range would obviously be an indication of one or the other pathology.

Table 1
Sample Characteristics

Characteristics	Normals (N=30)	Manics (N=30)	P
Age (in years)	35.10± 10.13	34.40± 9.30	CR=0.28 n.s.
Education			
0-5	3	10	X^2=3.31
6-9	7	5	n.s.
10+	20	15	
Occupation			
Nil	4	5	
Service	8	10	X^2=1.59
Business	2	5	
Labour/Agriculture	16	10	n.s.
Domicile			
Rural	10	14	X^2=1.11
Urban	20	16	n.s.
Marital			
Married	22	25	X^2=0.39
Unmarried	8	5	n.s.
Family Type			
Joint	18	16	X^2=0.27
Nucleare	12	14	n.s.

Typical responses are indicative of reality testing. A decrease in Typical score with resultant increase in Atypical scores observed in manic patients is in the expected direction. The correlation between SIS-II and Rorschach has been found significant for Most Typical, Human, Animal and Human Movement in psychiatric patients (Kaur & Verma, 1998). In another study, on SIS-II and Rorschach in affective psychosis, the correlation was found to be significant for Anatomy, Human Movement, Most Typical and Atypical responses (Rathee et. al. 1998).

In the present study, SIS-I is correlated with Rorschach on common indices in manic patients. All correlations except for Most Typical responses were found to be significant. (Table-3). The significant correlations support the notion that Rorschach and SIS follow

Table 2

Mean, S.D. and C.R. Value of Normals and Manics on SIS-I (Scores are in Percentages)

Indices	Normal (n=30)	Manics (n=30)	CR value
Human	M=13.19	M=17.73	1.75
	SD=8.77	SD=11.23	n.s.
Animal	M=28.97	M=2.68	1.09
	SD=8.25	SD=11.37	n.s.
Anatomy	M=27.37	M=17.73	2.43
	SD=14.81	SD=15.95	.05
Sex	M=1.05	M=2.65	1.36
	SD=10.89	SD=9.72	n.s.
Rejection	M=11.57	M=7.87	0.44
	SD=4.13	SD=4.27	n.s.
Movement	M=3.96	M=2.59	1.26
	SD=4.13	SD=4.27	n.s.
Most Typical	M=8.56	M=10.27	1.30
	SD=5.33	SD=4.82	n.s.
Typical	M=68.28	M=14.27	5.89
	SD=9.89	SD=40.12	.01
Atypical	M=23.16	M=40.12	4.92
	SD=11.48	SD=15.01	0.1

Table 3

Pearson Product Moment Correlation Between SIS-I & Rorschach in Manic Patients

Indices	Correlation	p
Human	.48	.01
Animal	.48	.01
Anatomy	.63	.01
Sex	.83	.01
Rejection	.53	.01
Movement	.39	.05
Most Typical	.06	n.s.
Typical	.49	.01

the same conceptualization in understanding an individual (Cassell, 1994). A comparison of the correlational findings of SIS-II and SIS-I suggest that greater number of SIS-I indices have significant correlations with common indices on Rorschach. The correlation of SIS-II with Rorschach have been reported for a mixed population of

psychiatric patients, affective psychosis and other major psychiatric conditions (Kaur & Verma, 1998). Varying pattern of correlation has been obtained across diagnostic groups. The observed difference in the extent of correlation between SIS-II and that of SIS-I could be due to the differences in the clinical groups.

Conclusion

Both the tests, Rorschach and SIS-I are in card forms with chromatic and achromatic colors. Both the tests bear more similarities than the booklet form of SIS-II which is in single color and designed for self-administration. This may imply that SIS-I has potential for use as a parallel form of Rorschach test. The index based present study explored the correlations in one diagnostic entity only. Similar studies are required to be concluded on normal and other clinical population to delineate a pattern of correlation between the tests.

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Diagnostic Significance of Sex Responses on SIS- II on Sex and Non-Sex Images

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The present paper reports the diagnostic utility of sex responses with an extended quantitative scoring criteria. Three groups of psychiatric patients viz, anxiety neurosis, paranoid schizophrenics and undifferentiated schizophrenics (N=25 in each group) and a group of age matched normal control (N=25) were individually tested on SIS-II. The obtained protocol were scored for 1) Sex responses on sex-images, 2) Sex responses on non-sex images and 3) Non-sex responses on sex images. Analysis revealed that partitioning of sex responses on sex and non-sex images provided diagnostically more rich information compared to the conventional scoring of total sex responses on all the 62 SIS-II images. 'Sex responses on non-sex images was found to be diagnostically redundant component and responsible for lowering the diagnostic efficacy of total sex responses.

The content analytic qualitative perspectives of Somatic Inkblot Series (SIS) test (Cassell, 1980,1990)have been attempted for deciphering useful diagnostic information's (Cassell & Dubey, 2003, Dubey, et.al 1994). Such an attempt is not aimed at comprising the inherent characteristics features of SIS; it only tries to highlight some additional diagnostic information's, which would otherwise not be observed. A number of quantitatively scored SIS indices have been employed over varies clinical populations and quite a few hard-core indicators have been proposed. The organizational setup of SIS is semi structured which precludes as rigorous quantification as is done in the Rorschach. Nevertheless, several indices have been found to be diagnostically quite differentiating. On the other hand, there are some indices, which have extended inconsistent findings. For example, some researchers observed that the SIS sex-index differentiated psychiatric patients from normal (Verma et al, 1994) while others failed to obtain the said differences (Dubey et al., 1994).

This inconsistency lies presumably in the manner of scoring this index. Most of the studies have utilized sex index solely on the basis of total number of sex responses elicited and in so doing the image on which these responses had been given were entirely ignored. This renders sex responses less discriminating because of the leveling across all the groups for total images. Besides this, computation of sex index in terms of all images does not allow it the status of hard-core indicator. Any attempt toward analyzing sex responses in terms of type of images (sex/non-sex) have not been done so far. It remains to be seen whether and how sex responses are elicited for the images that bear resemblance to a sex-related and/or unrelated situation. Similarly, so far no attempts have been made to analyze the repression of sex responses by taking into

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account the number of non-sex responses on sex-images. One of the innovations of the present study is to analyze sex-response on sex and non-sex images with the purport of identifying the diagnostically redundant component, which renders the leveling effect in sex responses.

Method

Sample

The sample consisted of 25 anxiety neurotics (mean age 31.6 yrs), 25 paranoid schizophrenics (mean age 28.6 yrs) and 25 normal age matched controls (mean age 26.33 yrs).

Tool

The Somatic Inkblot Series-II (Cassell, 1990) was used for the present study. The SIS-II consists of 62 images printed in blue and white in two series, A and B with 31 images in each.

Procedure

Subjects were tested individually on the SIS-II following the standard instructions (Cassell and Dubey,2003). The SIS-II protocols for each subject were scored for only sex responses under the following three categories: [1] Sex responses on sex-images, [2] Sex responses on non-sex images, and [3] non-sex responses on sex-images. Followings the classification of Cassell and Dubey,1997, ten SIS-II images are identified as sex-images and responses pertaining to them were analyzed in terms of sex responses and non-sex responses. Besides this, sex responses on remaining 52 images were considered for inclusion under the category of “sex response on non-sex images.”

Results

Mean and S.D. for sex responses on sex and non-sex images for various groups appear in Table-1.

Mean sex responses on sex images by normal controls were higher (mean= 2.68, S.D.=1.59) as compared to the three clinical groups. On the other hand, non-sex responses on sex images by the normal subjects were the lowest. The differentiated schizophrenics have evinced very high mean score (mean=9.12, S.D..=1.15) followed by the anxiety neurotics and paranoid schizophrenics. The mean sex responses on non-sex images reveal that anxiety neurotics have a tendency to respond more in a sex related manner. However, none of the inter-group comparisons show significant differences. The lesser mean sex responses by them on sex images extends the theory that sex images are perceived as more threatening while the non-sex images are used as footboards to express their sex related feelings.

Table 1

Mean and S.D. of Sex Responses on Sex-and Non-Sex Images of SIS-II

	Normal (N)	Anxiety Neurotics (A)	Paranoid Schizophrenics (P)	Undifferentiated Schizophrenics (U)
	Mean S.D.	Mean S.D.	Mean S.D.	Mean S.D.
Sex responses on Sex image	2.68 1.59	1.16 1.22	1.16 1.28	0.88 1.14
Sex response on Non-sex-image	1.20 1.47	1.28 1.78	0.88 1.51	0.80 1.10
Non -sex Response on Sex-image	7.32 1.59	8.84 1.22	8.84 1.29	9.12 1.15

Table 2

"t"- Ratios for Intergroup Comparison on Sex Responses of SIS-II

	N vsA	N vsP	N vsU	A vsP	A vsU	P vsU
Sex response on Sex image	3.88*	3.80*	4.62*	———	0.85	0.82
Sex response on Non-sex image	0.17	0.76	1.08	0.11	1.14	0.22
Non-sex response on Sex-image	3.8*	3.8*	4.62*	———	0.85	0.82

* $p<0.01$

Table-2 shows that sex responses on sex images by normal subjects were significantly higher than that of anxiety neurotics ($t=3.88$, $p<0.01$), paranoid schizophrenics ($t=3.80$,$p<0.01$) and undifferentiated schizophrenics ($t=4.62$, $p<0.01$). Its contrary was evident for non-sex response on sex images on which the clinical groups significantly outnumbered the normal controls. None of the comparisons between clinical groups showed a significant difference.

Discussion

The results of the present study suggest that the non-observance of responses on sex index as a diagnostic marker could be based on pooling of redundant responses across all the images. The partitioning of sex responses on sex and non-sex images

with the purport of identifying the diagnostically redundant component has shown that "sex responses on non-sex-images" gloss over sex-response category. It could be a reason that earlier researchers failed to identify its diagnostic utility mainly because they could not isolate the redundant component. The results highlights that normal subjects volitionally omit non-sex images as a means of perceptual defense. The tobacco related with sex images hardly permits normal respondents to ventilate their real feelings and they cope with the social demands. On the other hand, the clinical groups employ the strategy of repression and in such an event; they willfully compensate sex responses with some other response. Moreover, the ego defense added with the repression of sex response enhances their non-sex responses. The present results extend the theory that the sex response category should be used as a diagnostic indicator and in doing so the responses for sex and non-sex images need to be separated. This also supports the content analytic nature of Somatic Inkblot Series tests.

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Psychotherapeutic Usefulness of SIS-II in a Male Client with Somatoform Disorder: Case Illustration

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SIS -II was administered to 41Yrs. male client who had the diagnosis of somatoform disorder. SIS -II protocol showed repression of sexual responses and rejection of several images. Giving feed back about his responses helped in breaking the resistance and bring out repressed unconscious material. In the following session he revealed his incestuous sexual experiences and the repressed guilt about it. Resolving the conflicts helped the patient to be free from the symptoms over a short-term integrative psychotherapy.

Somatization is a tendency to experience and communicate psychological distress in the form of physical symptoms in the absence of any pathological findings, but is attributed to physical illness, and the person seeks medical help. Stekel introduced the term somatization in the early century and it was used to refer to a hypothetical process whereby a “deep-seated” neurosis could cause a bodily disorder (Lipowsky, 1988). From a psychodynamic perspective, it was related to, if not identical with the concept of conversion that Freud described. However realising the importance of the symptom cluster, somatoform disorder was included in ICD-10 (WHO, 1992). For a diagnosis of somatoform disorder, presence of multiple and variable physical symptoms with no adequate physical explanation; persistent refusal to accept advice and some degree of impairment of functioning for at least 2 years are required. There must be a total of 6 or more from a grouping of 14 symptoms in two of the different areas i.e. gastrointestinal, cardiovascular, genitourinary, and skin and pain (ICD-10).

Regarding the prevalence, research reports suggest that a large proportion (30% to 80%) of patients attending general practitioner and medical outpatients clinic have symptoms which cannot be clearly diagnosed (Barsky and Klerman, 1983). In a hospital setting, Van Hemert, et. al., (1993) found that among new referrals to a general medical out patient clinic, 52% of patients had symptoms that ultimately remained unexplained. Comparing the gender, women tend to somatize more than men do (Wool and Barsky, 1994). Symptoms of subjective weakness, headache, pain in extremities and pseudo -seizures were more common in women whereas palpitations were more common in men (Chadda, et. al., 1991).

There are different observations regarding the etiological factors. From psychodynamic perspective, somatic symptoms represents a substitution of repressed instinctual impulses. In one of the early observation regarding somatization, Stekel (cited in Kellner, 1990)) expressed the view that the body was translating into the physiological language the mental troubles of the individual. Some of the psychoanalytically oriented therapists

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consider it as an immature defence. Robins, et. al., (1984) viewed it as a reflection of transference problems in psychotherapy.

Apart from the frustration to the clinicians, somatization enacts high personal, social and even corporate costs because of the high indices of disability and frequent sick leaves. The person with the somatoform disorder creates high medical costs because of large consumption of medical services, often ends in therapeutic failures and creates a need for further physical and laboratory explorations (Escobar, et. al., 1987). It is estimated that between 10-20 percentage of the medical budget is spent on patients who somatize or have hypochondriac concern (Ford, 1983). Since the prevalence of somatoform disorder is more in our country and the treatment cost could drain out the existing health management resources which are at present inadequate, there is a need to explore other sources of diagnosis and management in order to cut the medical costs and help the suffering persons. Somatic Inkblot Series (SIS), which are closely linked to the somatic schema and based on dynamic principles, may have the potential to take up this challenge.

Wilfred A. Cassell developed Somatic Inkblot Series in 1959 (Cassell, 1980) and it has evolved much over a period of time. Since its introduction into the clinical setting, tremendous research input had gone in improvising the test including the adaptation of modern technology (Dubey, 2000). Different studies have established its reliability and validity (Dubey et al, 1992; Verma, 1995) and its usefulness in different clinical conditions (Dubey and Cassell,2003).

Present paper is an investigation dealing the case history of a client with somatoform disorder, the findings on SIS-II and its effect on psychotherapeutic management of the case.

Case History

Mr. S. 41 year old male, who passed plus two level of schooling and technically qualified as painter was referred by an ENT Specialist for evaluation and management to the first author (LSSM) at the Centre for Applied Psychological Studies,Thiruvananthapuram, Kerala. He was working in the Middle East for 14 years in different jobs. He came with complaints of pain in both cheeks, irritation on his cheeks and eyes, pain similar to ant bite on the nose, occasional one-sided pain of his left face, of one year duration. He also complained of headache, burning sensation in the stomach, bad odour coming out of his mouth, getting a bad smell, pain in the armpit, back pain, suffocation and breathlessness, allergic irritation, and pain in both the arms of 6-7 years duration.

He had consulted several specialists- Cardiologist, Neurologist, Gastro-entrologist, Ophthalmologist, Ortholaryngologist and Dentist, apart from general physician in Middle East and in India. Repeated and several investigations including CT scan, EEG, ECG Endoscopy at different intervals were done apart from the routine investigations. All the investigations were normal and none of them could detect any organic etiological factor. He also tried alternate medicines of Ayurvedic and Homeopathic treatment and did not find any relief to his symptoms. Temporary relief to his symptoms was experienced following nasal wash, which was done two years prior to his consultation.

He was born out on non-consanguineous union and is the only male child and is the eldest of 5 sibs. There is no significant family history. His father was in Middle East since his childhood days, but was a very strict disciplinarian. On psychological evaluation patient was found to be of above average in intellectual abilities.

He was working for a company and later he joined a automobile workshop in Middle East. He used to take leave for several months for his problems and used to come to India when he is not able to continue with his work. He denied having any psychological problems in the intake session and during evaluation.

Therapeutic Management

The client was screened using Somatoform Disorders Schedule (Janca, et.al.,1995) in order to establish the diagnosis of Somatoform Disorder and the evaluation was aimed at ruling out any other psychiatric disorder including Depression. After this, the Integrative Psychotherapy based on the Indian concept of person (Manickam, 1992) was started. In the first session he was initiated into Relaxation Asana (Manickam, 2002) and it was completed over three sessions. In the first three sessions, half the session was devoted to encourage him to talk about the significant events in life to bring out the traumatic experiences or other psychological problems. In the fourth session, he was introduced to a divergent perspective method in order to facilitate cognitive restructuring. In the fifth session, a cognitive approach, based on Rational Emotive Behaviour Therapy was tried out. At the sixth session the client did report a minimal relief of the symptoms. In the sixth session, a gestalt stance was taken. The therapy focused on the present symptoms rather than the symptoms that he had in the past in Gulf. To that his main concern was that he had suffered so much in the past and could not do his work efficiently and as a result he could not earn as he thought he could do. So he was worried that continuation of his symptoms would make his life situation worse.

In the initial five sessions the client was mainly focusing on the symptoms. He showed resistance to discuss about the life events or the psychodynamic factors. Whenever the probe is made, he would “replay” the content of the intake interview. In order to identify the triggering factors he was assigned a home task- to keep a record of the date and time of the occurrence of the symptoms, his feelings, the situations which led to the difficulty and the cognition at the time of the triggering event. The record showed that he was preoccupied with the symptoms and his cognitive process was related to the precedents of the symptom/s rather than the antecedents. It was also interesting to note that though he was asked to record his feelings at the time of the difficulty, he could not identify the feelings in all the situations. But he recorded the experience of the symptoms as “pain” “discomfort” “irritation” or as “pain related to the particular body part”. As the therapy progressed, pressure was put on the therapist and he expressed hurry to get back to his job as he was loosing money due to his prolonged absence from work.

However, over the sessions, some of his psychological problems could be brought out. He discussed about his father who was a strict disciplinarian and who used to take decisions for the client even after he grew as an adult. His father returned to India and lives at the family house, where he also lives and he finds it difficult to cope with him.

Another conflict was related to his arranged marriage. Though he reported that he has a successful and satisfactory married life initially, as the therapy progressed he discussed about his feeling of being cheated through marriage. As a result, his relationship with his in-laws was strained and he stopped visiting her parents. He does not like his wife and children visiting her parents and staying with them. Mr. S. also expressed that he finds it difficult to be away from his wife and children and at the same time he cannot leave the job and come back to Kerala. At the work situation he goes into preoccupation about his child and wife and ends of missing them. Gradually he started talking about his anxiety and worry about their health, whether some harm would happen to them and who will take care of them in case Mr. S. dies prematurely.

In between the sessions, client reported aggravation of his symptoms and on his own he consulted a neurologist again who opined about the psychological causation of his physical symptoms. This could be yet another manifestation of a defence mechanism, which the patient was using as a last resort to resist from divulging the unconscious process. However, there was a considerable change in the content of his talk, after applying a behavioural strategy of negative reinforcement during the sessions whenever he attempted to present the 'list of symptoms'.

The SIS-II was administered to find out deep buried unconscious material helpful in the process of therapeutic intervention.

Findings on SIS-II

The responses were analysed based on total number of Responses, Human, Animal, Anatomical, Sex, Movement, Most Typical, Typical, Atypical, Rejection of Images and Pathological Scales. It was observed that the client suppressed the normal responses on SIS. The number of Human responses was low and it suggested that client has poor interpersonal relationship. Mr. S. rejected 18 images. The rejection of images was very high. There were only 4 animal responses, which indicated that he is psychologically mature, which is supported by the findings on intelligence test. There were 12 Anatomical responses and it indicated that he is preoccupied with bodily symptoms.. Clinically he showed concern about the functioning of his body parts.

There were 11 Movement responses- little above normal suggesting his active participation and interaction. He gave 11 Typical responses – and it suggested that his logical thinking was intact, and he has the ability to keep up with demands of society and has good ego strength. There were only 5 sex responses. Patient's rejection of imbedded sexual structure gave a clue to his conscious repression of sexual experiences. None of the pathological sub-scale scores were elevated.

Effective application of SIS- II during the psychotherapy

The client did report that his 'discomfort' had reduced but he continued to talk about the "list of presenting symptoms". The behavioural technique- the relaxation technique may have reduced the level of anxiety, but he was not free from the symptoms.

During the 8th session, he was emphatically told that all the investigations are negative and Mr. S. was asked to describe his own inference about the investigation results and report of his previous consultations.

Client: There is no problem with my body, that's what every doctor say, but I have all these problems.

Therapist: What does it mean?

Client: I don't know

Therapist: Hmm

Client: Can you tell me?

Therapist: I feel that you are intelligent to understand the reason.

Client: (Smiles)

Therapist: It means that there is no cause for your problems. But it is originating from causes related to your mind. We have discussed about this earlier.

Client: You told me… that's true … and I discussed about the problem in my work and sometimes I feel very much when I am away from my family.

Therapist: Yes, I am glad that you could identify them and narrate them. There are also some other problems, which you told in the third session. Your strained relationship with your wife due to financial arrangements at the time of marriage, your difficulty to adjust with your father – in law and your pain about your father's behaviour towards you which you discussed in another session.

Client: That's right that's why I said that I have told every thing to you.

Therapist: There may be some more events in your life which may have hurt you.

Client: I don't think there is something more.

Therapist: It may be related to your personal relations in sex area.

Client: No I don't have any experiences before marriage and I am happy with the relationship with my wife.

Therapist: Yes, you told me that you have satisfactory sexual relationship with your wife.

Your responses in the test indicated that you have disturbance in the sexual area.

Client: There were some pictures that resembled sexual organs, but I did not want to say.

Therapist: I can understand your difficulty in saying those

Client: I don't think this is going to help me, the relaxation is helping me to some extent and I am trying to change the thoughts as we discussed in the last session.

Therapist: That's nice to know that the therapy is helping you in some way. But there is no harm in trying again. (Session ends)

In the following session without much resistance, through gentle probing, Mr. S. opened up about his incestuous relationship. While he was staying at home after his studies his cousin sister also stayed with his family. She was elder to him and was a divorcee. On her initiative, he had sexual intercourse with her several times. He had guilt feelings about the act and used to express it to her. He never had given her any assurance that he would marry her. But he felt that it is sin to have sex with her. The guilt feeling persisted for two years and he suffered psychologically. He could not engage himself in any regular work. Even in short term tasks he had taken up, he could not concentrate. And finally he decided to leave the country.

After this session the frequency of the patients reporting of the physical symptoms came down drastically. In the subsequent sessions his guilt was focused, based on a gestalt approach.

Though he belonged to Islamic faith, he never observed any religious rites. But he showed inclination to get over the guilt from a spiritual perspective. Therefore he was referred to a Mullah (Islamic religious teacher) in order to discuss about the religious understanding and practise for atoning guilt. In the subsequent session, he Mr. S. reported relief from the symptoms. He also reported attending the mosque and observing the religious practices as recommended by the Mullah.

At this stage he was asked to phase out the therapy sessions, and he came for consultation after a month, before he decided to fly back to Gulf. He reported complete remission of his symptoms at the time of termination of the therapy.

Discussion

The present case did fulfil the criteria for the diagnosis of Somatoform Disorder (ICD-10). Unlike the other clients who opt to undergo psychotherapy, he was very compliant, and had undergone 12 sessions of psychotherapy. Initially he was not convinced about the psychological aetiology of the symptoms, which is similar to other patients with somatoform disorder. Probably what prompted him to continue the sessions was the pressure from the members of his family to get back to his work, the financial loss he incurred by absenting himself from work for long period of time and the medical treatment cost. He had taken leave for his treatment for more than three months in the beginning of the current year and he had to meet the expenditure of his treatment and his travel cost to India.

Several authors have put forward the view that denial and repression of distressing emotions are associated with somatization (Kellner, R., 1990). The present case we described also showed that the individual had undergone a traumatic sexual experience. His guilt associated with the trauma was repressed using defence mechanisms. The unresolved unconscious material had manifested as somatic complaints.

From the experience of one of the authors (LSSM), this is not an isolated one. Working with adult clients with somatoform disorders, it appeared that the clients had psychic trauma during their adulthood rather than childhood. Therefore the traumatic experiences are consciously repressed and hence strong resistance is experienced in therapy. In majority of the cases the person is psychologically threatened within to reveal the repressed material for fear of the consequences it might cause to the immediate relatives, than the person. This is complicated by the fact that the relatives especially the family members are very curious to know the causative factors. Even though confidentiality is ensured, since there are no secrets within the family, and in medical practice the relatives are told about the health status of the patient instead of telling them to the patients, the clients are apprehensive of the therapist's confidentiality. Therefore the clients tend to check or test out confidentiality and trust of the therapist in the initial sessions of the therapeutic relationship. The clients tend to worry about the response of the concerned person/s if they come to know about the client's opening up of traumatic experiences, which led to the genesis of the present physical symptoms. It

may disturb the present healthy relationships within the family. Another factor is the non-acceptance of the fact that psychological trauma could cause somatic symptoms. This sometimes leads to hostility towards the index patient by the significant relatives. On many occasions the parents do tend to punish, turn hostile and/or neglect when they realise that their child has a psychosomatic problem. Irrespective of educating them about the nature of the problem, they tend to perceive the problem as a purposeful behaviour or fictional disorder and tend to drop out of the treatment.

Athanassiou Cleopatre (1987) in a study explored the psychic linkages between the Freudian concepts of ego and preconscious activity. In somatoform disorders, the topographical location of the preconscious between the unconscious and consciousness exists with its double function of allowing some unconscious material to filter into consciousness, while barring or transforming other unconscious material. The transformations of unconscious material occurring at the preconscious level, which are linked with object introjections, lead to the concept of identification. The preconscious is seen as a container whose psychic content consists of latent ideas transformed into something different from those existing in the unconscious. Probably in somatoform disorders there is a linkage between ego and psychic content of latent ideas and the introduction of a projective technique like SIS helps in breaking the barrier and bring out the unconscious material.

One may argue that the traumatic experiences could have been brought out had the therapy be continued even without the administration of SIS. This is something that cannot be proved. However, the fact that the unconscious material could be brought out in the session following the administration of SIS probably helps one to conclude that the SIS was instrumental in breaking the resistance and bringing out the unconscious material. Since SIS - II could bring out the unconscious material over a short span of time and helped the client to get over the problems he had been suffering for a long period of time, it appears to have the potential to be used widely by the practising psychologists in the clinical setting for diagnosis and therapy.

In Indian setting majority of the clients prefer a short term and brief psychotherapy. In majority of the cases they tend to drop out after four or five sessions. Even a well-experienced clinician will struggle to get the unconscious material, which is one of the key factor in successful integrative psychotherapy (Sajani & Manickam, 2000). Therefore SIS is likely to be very useful to unearth the unconscious material.

Probably patients with somatoform disorders may express a conscious rejection of sex responses, which may have to be studied on a large sample. Moreover, as Mishra and Dwivedi (1997) had attempted, norms for the Kerala population may have to be developed, which may help interpret the SIS data in quantitative terms too. The norms available are based on literate sample. Since the patients with somatoform disorder are mainly from the rural background and less literate people, there is a need to establish the norms for the illiterate population too.

Conclusion

The new scoring system of SIS -I (Cassell and Dubey 2002) and SIS -II (Cassell and Dubey 2003) will help researchers, Clinicians, Psychologists and Psychotherapist in quantitative and qualitative interpretation of the SIS images during Psycho-diagnostic evaluation and Therapeutic intervention. The potential usefulness of this projective tool in therapy has to be exploited by the clinical training centers, especially those, which are attached to the medical settings where majority of the clients with somatoform disorder and other health related patients seek therapeutic help.

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Appendix

Responses given by patients on SIS-II images

A1	Human chest	B1	Rejected
A2	Human heart	B2	Rejected
A3	Bomb explosion	B3	Rejected
A4	Sad human being	B4	2 people looking sad
A5	Smiling human being	B5	Husband and wife discussing
A6	Rejected	B6	Below the pelvic region of woman
A7	Rejected	B7	A globe
A8	Rejected	B8	Kidney
A9	Two women	B9	Rejected
A10	A woman working	B10	Rejected
A11	Sexual Intercourse	B11	Liver
A12	Ear	B12	Sad looking man
A13	Palm	B13	Rejected
A14	Rejected	B14	Rejected
A15	Child growing in the womb	B15	Forest (A place with hills and forest)
A16	Lungs	B16	Missile
A17	Rejected	B17	Rejected
A18	Rejected	B18	Head of a snack
A19	Large intestine	B19	Octopus
A20	Kidney	B20	Brain
A21	A bird	B21	Pistol
A22	Don't know	B22	A man walking away
A23	Back bone	B23	Crab
A24	Foetus (child in the womb)	B24	Rejected
A25	Vagina	B25	Cat's face
A26	Child sleeping with head on hands	B26	Rejected
A27	Rejected	B27	Foetus
A28	Rejected	B28	Baby sleeping
A29	Lake	B29	Boy running
A30	Skull	B30	Liver
A31	Lovers.	B31	Happy family

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The Diagnostic Value of the SIS in Treating a Child with Panic Attacks During the Post-Divorce Period: A Clinical Case Study

George Savage

Divorce is one of the most traumatic experiences for both parents and children. In many cases the children are not aware of the intention of the parents to dissolve the marriage. Once the decision to divorce is made most couples find it difficult to approach life in a positive and constructive way. They experience a range of emotional and psychological consequences and many are very vague about their future. Communication between the couples can range from talking about the impending events to complete non-communication. The self-esteem of both or one parent is negatively affected and they may loose their sense of priority and tend to be problem and circumstance driven (Hoffman & Pincus, 1989).

The child's reaction to parental divorce is one of confusion and depends to a large extent to whether or not they are informed about the reasons for the divorce. It is unavoidable that the child will be in the middle of a custody dispute that exposes them to additional trauma. The anger and hostility between the divorced parents make it difficult for children to face life with any degree of confidence. It is not surprising therefor that these children often display aggressive behaviour. They have difficulty to display affection to others and fear to become emotionally attached to others. Anxiety and depression are common manifestations in the lives of these children.

They age of the child will determine to a large extent how they will react to parental divorce. The toddler will realize that one parent no longer lives at home. Preschoolers and early elementary school children are more likely to blame themselves for the divorce. They will display feelings of sadness and will mourn the loss of one parent. Preteens and adolescents feel abandoned by the parent who has moved out. They will display a range of emotional responses. They may become aggressive and rebellious, will feel angry and some will have to prematurely assume adult roles.

While therapists can have a dynamic formulation about the reasons for a patient's they can never be absolutely certain that they are correct. The value of the SIS lies it it's ability for therapists to allow the patient to reveal emotions that would under normal circumstances will remain hidden (Cassel and Dubey, 2003).

Case Study

The patient is a 14-year-old young man who was referred to the author by a doctor who had been treating him for sports injuries. Six months prior to his referral the patient developed respiratory problems. He reported that he could not sleep because of his difficulty with breathing. His mother reported that she and her husband divorced almost five years prior to his referral. Mother further reported that whenever she wanted to go out that the patient would complain about difficulty in breathing.

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The patient reported that the parental divorce made him feel very sad because his father had left the house. He knew that his parents were going to separate but his father left without formally greeting him. He felt that his parents did not really love each other. He reported that he would frequently get up during the night to make sure that his mother was in the house and that nothing had happened to her. He described his symptoms as a tight feeling in his stomach followed by his gasping for air. He would have a feeling of impending harm to his mother. He dated the onset of the symptoms to just after his parent's divorce. He was ten years old at the time.

Dynamic Formulation

The author hypothesized that the patient's symptoms were related to the parental divorce. The patient was afraid of loosing his mother as well and he had negative angry feeling towards his father. He somehow felt responsible for his mother and had guilt feeling about his anger towards his father. The panic attacks were neuro-psysiological responses to his fear feelings of guilt and his fear of loosing his mother.

Intervention Plan

In order to confirm the dynamic formulation the author decided to administer the SIS cards. The following are his responses to each of the cards.

SIS Responses

Card 1

I see a cow, this is the head and horns ... standing on a stool, like blood. That blood is from its head because part of his body is gone.

Card 2

Somebody smiling head big smile, arms and feet. He is just happy, he won something. It is nothing that he did he is just happy.

Card 3

I see a lady and a man, they are holding hands together. They are running. Running to get objects, apples.

Card 4

Somebody playing soccer, the head, there is the ball.

Card 5

Looks like a sumo-wrestler sitting on a stool. He is anxious about something. Two children sitting on the side, two babies. Looks like he is falling down and this one looks like he is jumping. I don't know why he is falling, he tripped to save him from falling.

Card 6

Looks like two birds singing, a child at the bottom looking at the two birds. I don't know why they are singing. He is watching. He is outside in his garden or something.

Card 7

Look like a butterfly lying on his back. I think he is hurt or something. Hurt by a stone or something, got thrown, someone threw a stone at him.

Card 8

Looks like two animals eating another animal, here is the ribcage, the heart. Here is another animal. They caught the animal, like two lions killing a zebra. I think the animal suffered, not an instant death.

Card 9

Looks like two children drinking coke or something out of the same tin, cool drink. They felt like sharing with one another.

Card 10

I can't see anything. Actually it looks like a lamp on a piano or something.

Card 11

I see a snake like in a tank. It's just lying there.

Card 12

Looks like an eagle, wings, flying away.

Card 13

Looks like a heart cut in half. Heart upside down cut in half.

Card 14

Looks like a very deep hole going down. Somebody getting buried flowers o top of the coffin.

Card 15

Looks like a very tall person wearing a hat, a big one. Just standing alone. No reason, just wants to get away from everyone else.

Card 16

Looks like somebody's face, eyes, nose, something coming out of the eyes, tears coming up not down. I don't know why crying.

Card 17

Looks like somebody with a very long nose. That's all I can see.

Card 18

Looks like a bat with pointing ears. Very black one.

Card 19

Looks like somebody putting on sunglasses. Looks like they are shouting. They look angry. They might be shouting at somebody. They did something wrong, looks very angry and at the same time very sad.

Card 20

Looks like somebody with a very big mouth, screaming, crying, and looks unhappy and angry. Somebody did something they did not like, they are shouting.

The patient reported that he liked cards, 2, 4, 9. He liked card 2 because, “This person is very happy, he won something”. He liked card 4 because, “This person looks like he is happy and is having lots of fun playing with his friends, having a good time. Finally he liked card 9 because, “They are sharing, not selfish, sharing with one another.

The respondent reported that he did not like cards 5, 8, 16. He did not like card 4 because, “I do not like the children falling while the father is sitting back, the other child is crying for help, dad anxious, not doing anything”. He did not like card 8 because, “I do not like that they had to kill something to satisfy their needs. The fact that they had to make the thing suffer before it was actually killed. He did not like card 16 because, “I don’t like somebody crying, it brings more pain into the person who is crying, everybody starts crying. I don’t like to see anybody sad”.

Interpretation

From the theme that appeared to emerge from the cards that respondent likes and did not like I concluded that there was a deep need to be happy doing some activity with someone. His sadness appeared to be the result of some group activity where one member of the group is causing the others to be unhappy or to hurt. The interpretation was made that, based on the clinical history the respondent was affected at an unconscious level by his parent’s divorce. He had a deep desire to be happy but the feeling of hurt caused by the parental separation had a more profound affect than he was able to understand. His panic attacks were his way of trying to resolve his fear of loosing his mother as well. This interpretation was shared with the patient and his mother. I explained that I proposed to help him to resolve these conflicts through the use of hypnosis. His mother was familiar with hypnosis and only a brief description was again given to her. I also explained to the patient what I proposed to do.

Hypno-therapy

The therapeutic intervention was divided into five phases. Phase one consisted of a routine induction and to anchor the feeling of relaxation in his fingers, that is to give him an anchor. This would be followed by phase two which would use the technique of age regression to a time when he experienced some anxiety. Phase three would use the technique of visualization to work on his anxiety when ever his mother decided to or actually left the house. The treatment would conclude with phases four and five which would consist of some ego strengthening and a post hypnotic suggestion of experiencing a sense of achievement and of the anchor producing a sense of deep relaxation whenever it was used any time in the future.

Phase one: Routine Induction and Provision of the Anchor

A routine induction through the use of systematic relaxation was done. The state of relaxation was then “anchored” to the patient’s left thumb and first finger (held in the position when pinching something). The anchor was tested by letting the patient visualize a scene that he found anxiety provoking and using his anchor to reduce the level of tension. When I was satisfied that the anchor was effective I proceeded to the

next stage of the intervention to deal with the conflict and pain of the parental separation. The techniques of choice were age regression and visualization.

Phase two: Age regression

The unconscious mind was allowed to regress to an earlier age to any incident that was experienced as painful or traumatic. The unconscious regresses to the age of 7 years. From the history this was the age when the parent's were experiencing marital problems. Mother reported that at that age the patient was competing with her for father's attention. In hypnosis the patient described feelings of rejection and aloneness. His predominate emotional experience was one of sadness. The suggestion was given that the "patient of to-day" i.e. the 14 year old had to talk to the 7 year old and explain that it was normal for a 7 year old in that position to experience feelings of rejection and alones and to feel sad. The 14 year old was instructed to continue "talking" to the 7 year old in the quietness of his mind until he was sure that the 7 year old no longer felt rejected, alone and sad. When that state was reached the 14 year old was instructed to "tell" the 7 year old that he would always be there for him and take care of him. The 14 year old had to then imagine the 7 year old walking away from him but now the 7year old was happy and content. When he could no longer "see" the 7 year old he had to indicate to my in a way that was comfortable to him that the 7 year old was no longer "in sight". At that stage the third phase of the intervention was done.

Phase three: Visualization

The technique of choice for phase three of the treatment was the use of visualization. The patient had to visualize being at home when mother decided to go out. He was instructed to use his anchor to reduce the level of anxiety to a level that he was comfortable with. The visualization was repeated (about three times) until he no longer felt any anxiety.

Phases four and five: Ego strengthening and post-hypnotic suggestion

During this phase the patient was instructed to visualize himself as strong and coping with no anxiety when his mother left the house. The post-hypnotic suggestion was given that he would have a sense of achievement referring to not experiencing any anxiety when his mother left the house and that whenever he used his anchor he would experience a feeling of deep relaxation.

Follow-up

A three week follow-up appointment was arranged, however after three weeks his mother phoned to report that the patient did not experience any panic or anxiety since his treatment. I decided not to see the patient again. His mother was taken into therapy for an unrelated problem and after 8 weeks she reported that the patient was still symptom free.

Discussion

An experienced therapist can usually be reasonably confident after taking a detailed history that their hypothesis about the origins of the psychopathology the patient presents is fairly accurate. However no one, not even the patient themselves can be sure of what the unconscious mind is guarding. To get a more accurate idea the therapist can make use of some projective technique to help them to get a clearer understanding of the

dynamics produced by the unconscious mind. An accurate identification of the underlying unconscious dynamics goes a long way to speed up the treatment intervention because the therapist can focus directly on the underlying conflict without going through the process of testing the hypothesis and reformulating when it is rejected.

This case history illustrated that the SIS is a very effective as a psychodiagnostic tool and therapeutic aid. The therapist was able to help the patient to resolve his underlying conflict of his perceived rejection by father through the use of hypnosis without the patient having a cognitive understanding of his illness. There is no doubt that children are affected by parental separations, however each child is unique. The therapist has to determine how the child they are working with experienced the trauma. While the therapist has a choice of projective techniques to use should they so desire, the SIS has proved to be a simple and very effective tool in this case.

The author recognizes that not every case where parental separation can be treated through hypnosis the use of this therapeutic approach proved to be effective in this case.

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SIS in a Case of Hypochondriasis

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The SIS-II was administered to 44 years male contractor, who was having uncomfortable and peculiar sensations in stomach, chest, head and heart. He was found normal on different investigations. Responses on SIS revealed his disturbed relationship with his father, maternal deprivations and preoccupation with physical symptoms. Significant responses on SIS are discussed in the case study.

The patient is 44 yrs. male contractor, having uncomfortable sensations in stomach, chest, head and heart. He lost his mother at about 7 yrs. of age. His father got married again. The step mother was very strict, cruel and partial towards him. This attitude made him extremely submissive, lonely, insecure and timid. His father was not appreciative or encouraging for any thing that he did and made him to feel useless almost all the time. The family environment was non supportive. He got married at about 25 yrs, and is having three kids.

Findings on a few significant images of SIS are discussed herewith. He has given 62 responses out of which 31 are Anatomical related with diseased body parts and showing concern about health. He has also shown pathological Anatomy response such as bloody, infected, cancerous, choked, rotten and painful. He has shown excessive concern about his physical health. Very high Anatomical response with high pathological Anatomy score suggest his hypochondric condition.

Some important and significant responses on Somatic Inkblot Test with content analysis are given below.

A1 Was seen as the blood is coming out of the lungs. This is somewhat unusual response and shows his anxiety about his state of health. He is very much conscious about his body functioning.

A2 Was seen as a mysterious ulcer, suggesting his preoccupation with internal body.

A3 Was seen as doctor's plus sign. It may indicate his insecurity and need to be near to physician for help if any.

A4 He perceived it a boy jumping from the hills. It may indicate suicidal thought to finish his life. Such responses may be taken more seriously and patient should be advised for treatment to control suicidal thinking.

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A8 Was seen as a boy in the mother's womb. It is regression and desire to go back to the prenatal state when he was secure and protected. He wants to revive the nurturing relationship with his own mother.

A13 Was perceived as a child's hand crying for help. This may suggest his sufferings and need to get help from others. It may also indicate the help he wanted from his father during his childhood which he feels he never got.

A16 Was seen as two birds fighting for food. It shows his aggressive attitude for survival.

A26 Was seen a baby crying in mother's womb. Regression is again brought on surface with desire to get help and attention from his mother/mother figure.

A27 Was seen a cancerous breast. This shows his tensed relationship with his step mother and wishful thinking to see her in distress such as a patient of cancer.

B15 Was seen as every thing has been broken. It showns his state of helplessness, insecurity and depressive mood.

B19 Was seen a broken egg. Once again regression is brought on the surface and desire to die even before his birth was indicated through this response.

The SIS responses revealed his depressive state of mind, insecurity, disturbed relationship with his step mother and painful memory of childhood. Suicidal thoughts are more alarming for which he needs immediate help. His aggressive attitude to see his mother "sick" was also projected. As a whole it looks a case with hypochondical symptoms. Therapeutic intervention in form of Jacobson's Relaxation is planned for the management of the case.

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The Relationship Between Drawing Variables and Stress and Anxiety

Lisa C. Milne and Philip Greenway

This study examined the style details and content of drawings in relation to the Rorschach variables measuring stress management. Based on previous research, we expected there to be a cluster of drawing variables, which would be indicative of stress and anxiety, such as the use of shading, depiction of damage in drawings, or producing minimalist drawings. Subjects were 59 males and 66 females from the normal population. The main findings were that drawing details, humans faces, representations of childhood, pleasant things, general objects, people together, humans alone, dots, and symbols were associated with adaptive characteristics specifically in relation to stress management. While drawing food, depicting damage, shading, adding letters or numbers and drawing minimally in the first six drawings was associated with the more negative aspects of stress managements, such as helplessness, unpleasant affect, unmet needs, and being overwhelmed by demand.

The relationships between what people draw and how people draw and the psychological defenses which they are most likely to employ and the personality characteristics were examined in two of our earlier studies (Greenway & Milne, 2002, Milne & Greenway, 2001). The Rorschach Inkblot test was administered to all the subjects with a view to examining whether responding to inkblots drew on the same internal processes for handling associations, as those elicited when subjects were asked to react to a visual prompt by drawing something. Both methods of assessing personality characteristics rely heavily on linking visual perception to underlying associative processes. In the present study, we looked at how much the style details and content of drawings related to the Rorschach variables measuring stress management. Specifically, we tried to find drawing details, such as whether subjects used shading or drew patterns, which might reflect how they handled stressful feelings.

Drawings have been used as projective measures of stress for over fifty years, particularly in children, mostly using human figure drawings. Fox et al., (1958) compared the human figure drawings of high and low anxiety children. They found that the drawings of high-anxiety subjects had more instances of: mutilations (defined as missing body parts, and when one or more limbs were comparatively smaller than others drawn by that subject); and rigidity (where figures appeared unable to move, or unstable if they were intended by the drawer to move). Low-anxiety subjects drew more: figures smiling; more instances of humour or playfulness; and more instances of figures with their arms down. Shading showed gender differences, with high-anxiety boys giving more shading than low-anxiety boys, but contrarily, low-anxiety girls giving more shading than high-anxiety girls. Machover (1949) suggested that the presence of

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shading, hair shading, erasures, line reinforcements, line pressure, size increases and decreases, omissions, line absences, vertical imbalance, distortion, head and body simplification, detail loss and transparency on human figure drawings were indicative of anxiety. Subsequent research suggested that type of shading was an important determinant of anxiety (Johnson, 1971). Although the exact nature of the relationship between shading and anxiety was not clarified, Machover (1949) had used a 5-point rating scale for shading from 'rational-controlled type shading' to 'diffuse and messy shading'. In a meta-analysis of anxiety indicators in human figure drawings, Handler and Reyher (1965) found that across 51 studies of human figure drawings the significant indicators of anxiety were: omissions; distortion; detail loss; line pressure increase; heavy line; size increase and decrease; and simplification. Koppitz (1966) developed a technique for scoring emotional indicators in human figure drawings, such as integration, broken lines, tiny head, vacant eyes, and omissions, which has been useful in identifying children under stress (e.g., Sturner & Rothbaum, 1980; Johnson, 1989).

In a study evaluating the Family Drawing Depression Scale, using adult patients at a spinal pain clinic, Peek and Sawyer (1988) found that depressed subjects showed significant before and after treatment differences on the following variables: size of self versus that of other people; isolation of self; amount of energy portrayed in family activity; interest in the environment exhibited by self and family; and the amount of empty space. The relative size of a drawn object apparently related to its perceived importance, for example, individuals concerned about or preoccupied with an event significant for them tended to make their drawings larger (Cooper & Caston; 1969; Craddick, 1963). Conversely, very small human figure drawings may represent insecurity, or anxiety (Klepsch & Logie, 1982) or anticipated stress (Craddick and Stern, 1963). These apparently conflicting findings may mean that a change in relative size is potentially meaningful, regardless of the direction of the change.

A study of the human figure drawings of adolescent runaways (Wood Howe, Burgess & McCormack, 1987) showed several notable findings. Non-abused runaways were more likely to draw gender-ambiguous figures, and sexually abused females to draw male figures. Significantly more sexually abused subjects used faint sketchy lines, no firm or bold lines, and colour than non-abused subjects. Other indicators from the abused subjects include absence of a body, emphasis on hair or facial features, ambiguity of sexual identification, and reinforced lines.

As may be obvious in this brief review, the research focus has been largely on children's drawings. In the present study, part of a larger study of normal adults, the prompts from The Franck Drawing Completion Test (Frank, 1976) were used and subjects simply asked to add to them. The scoring system, developed in previous studies (Milne & Greenway, 2001; Greenway & Milne, 2002), measured the style details and content of the drawings. From our previous work, we expected several of these to relate to the Rorschach stress management variables, for example, that drawing patterns rather

than content including objects, places and people, and shading drawings. We also thought that drawing humans in common activities or humans together would suggest resiliency to stress. We further hypothesized that not adding anything to the figural prompt or only minimally would indicate test resistance and would be associated with poor stress management. Similarly, we thought that drawing damage would be related positively to stress and anxiety, while drawing pleasant objects would be negatively related. Finally, we wanted to investigate whether specific contents such as drawing pleasant objects, food, clothing and details of style, such as straight or curved lines, had any psychological meaning in terms of stress and anxiety.

Materials and Methods

Subjects

Subjects were 125 (59 males and 66 females) normal adults from Victoria, Australia, who volunteered to complete a battery of psychological tests. The mean and standard deviation for the age of the sample was 35.54 years and 9.81 years, respectively, with no significant gender differences in age.

Procedure

Subjects attended two sessions during which a battery of tests was administered, including the Rorschach Ink Blot Test and the Franck Drawing Completion Test (Franck, 1976), the Defence Style Questionnaire (DSQ-40; Andrews, Pollock & Stewart, 1989), the Perceived Control of Internal States Scale (PCOISS; Pallant, 1998). There were no inducements to participate.

Instruments

The Rorschach records were scored according to the Comprehensive System (Exner, 1993) and the variables relating to control and tolerance of stress, and to situational stress were extracted. Two state registered psychologists scored the records independently. The agreement between the two scorers for all variables related to the stress management cluster was .92. All Rorschach variables were converted to categories. Subjects were grouped: for D score into those with a minus, zero and those with a plus score; for AdjD likewise; for EA, es and Adjes into those with scores of 0-5, 6-10, and greater than or equal to 11; for SumC' into those with scores with scores equal to 0, 1-2 and equal to or greater than 3; for SumT into those with scores equal to 0-2 and equal to or greater than 3; for SumV, and also for SumY, into those with scores equal to 0 and those with scores equal to or greater than 1; for m into those with scores less than or equal to 2 and those with scores equal to or greater than 3; for FM into those with scores less than or equal to 2, 3-5, and those with scores greater than 6; subjects with $M^a<M^p$ and those with $M^a>M^p$;and the Constriction Ratio into those with WSUMC'>WSUMC and those with WSUMC'<WSUMC; and FM+m into subjects with scores of 0-3; 4-6; and 7 or more.

The Franck Drawing Completion Test (1976) is a projective test in the form of a booklet of 36 small, figural prompts to which the subjects were asked to add. The instructions were, “In the following pages you will find a number of incomplete drawings; please complete them. Do it in any way you like; use as many lines as you wish; do it the way it seems most fun. There is no right or wrong way of doing this.” Originally, Franck intended this test to measure gender style, but in the present study the test booklet was used simply to provide subjects with drawing prompts. The number of scoring measures used in our previous report was increased. The variables were: Whole Humans - a whole person, depicted as part or all of the drawing; Human Faces - a human face only with no other content, although it could be elaborated, for example with a hat or glasses; Humans Alone - single human figure either as part or the whole of the drawing; Humans Together - a drawing that contained at least two human figures; Animals - any kind of animal was included in the drawing; Objects – a drawing of any inanimate object; Patterns - a drawing which was not of a human, animal or object and had a recurring component to it; All-over Patterns - was similar to the Patterns category, but the drawing filled the entire area allotted to the prompt; Dotted Patterns - the pattern included recurring small dashes or dots; Letter-Numbers - letters, words or numbers were added to the drawing; Damage - some kind of injury or destruction was depicted as occurring or having occurred; Childhood - any representation of any aspect of childhood; Shading - part or all of the drawing had been filled in with solid shading; Human Activity - humans were depicted as engaging in some form of activity; Food/Drink - any representation of food or drink; Container - objects which hold things, e.g., cup, box, vase etc; Food-Giving Animals - any animal commonly considered to provide food, for example a cow; Symbols - symbolic representations, such as signs and flags; Weapons drawings that contained arms of some kind, e.g. guns, knives. These had to be offensive, thus a knife alongside a fork would not be scored in this category; Weather - any representation of adverse weather conditions e.g., snow, rain, lightening, clouds; Minimal Detail - Drawings in which the subject added three or less pencil strokes; Omissions - drawings with no additions to the prompt; Rotation –one had to turn the paper to see the drawing in its normal orientation; Closure - the subject had only closed any gaps in the prompt; Sexual - any drawing details representing sexual activity, nudity or genitalia; Clothing - clothes; Minimal 6 - the total number of the first 6 drawings that have had 3 or less pencil strokes added contributed to this category; Stick Figures a whole human represented by simple lines for a body, arms and legs, and a circle for a head; Straight Lines - the subject added only straight lines to the prompt; Depth - any attempt to represent depth or three dimensionality; Pleasant Objects - a rainbow, smiling face, flowers, love-heart or the sun; Curves - only curved lines were added to the prompt; Recognisable Objects – objects which were clearly recognisable as something. This category recorded recognisable objects for prompts 4, 13, 18, 21, 25, and 31; Separates-prompts 1, 8, 11, 13, 17, 26, 27 contain 2 separate lines. This category recorded instances where the two prompts were left unconnected. Commons - observation of

the data revealed that four of the prompts commonly elicited specific objects, e.g. for prompt 14, 40% or more of the subjects drew a see saw. These prompts were included together in a category.

Table 1

Groupings for the Categories Representing the Drawing Details

Categories for the Drawing Details	Group 1	Group 2
Humans		
Humans Alone	0-1	≥2
Humans Together	0	≥1
Human Whole	0-1	≥2
Faces	0-1	≥2
Stick Figures	0-1	≥2
Human Activity	0-3	≥4
Sex	0	≥1
Patterns		
Patterns	0	≥1
Allover Patterns	0	≥1
Dotted Patterns	0	≥1
Shading	0	≥1
Curves	0-1	≥2
Lines	0-1	≥2
Style Details		
Closure	0	≥1
Rotation	0-1	≥2
Recognisable Objects	0	≥1
Minimal Detail	0	≥1
Minimal 6	0	≥1
Omissions	0	≥1
Letter-Numbers	0-1	≥2
Separates	0-1	≥2
Depth	0-1	≥2
Miscellaneous		
Objects	0-6	≥7
Animals	0	≥1
Food Giving Animals	0-1	≥2
Food/Drink	0	≥1
Pleasant Objects	0-1	≥2
Symbols	0-1	≥2
Clothing	0-1	≥2
Damage	0	≥1
Weapons	0	≥1
Childhood	0	≥1
Containers	0-1	≥2
Weather	0-1	≥2
Commons (given by GT 40% subjects)	0-1	≥2

As none of the data for the drawing categories were normally distributed, their frequencies were combined to construct two groups. (Note: In previous studies we have used three groups for some of the drawing categories. For this study only two

groups were used in order to assess the effect of R on the results, using a binomial logistic regression). We formed these categories intuitively using two rough guidelines. The first was statistical, determined by the frequency distribution. For example, if 85% or more subjects did not give an instance of a category, the division was into two groups, Group 1, subjects giving no instances as against Group 2, those who gave one or more instances of the category under construction. The second criterion was psychological. For example, giving one weapon is probably not significant but giving four would seem to have some meaning. In these cases, we were guided by how this problem had been solved in other projective tests. The categories and their groupings are shown in Table 1.

Results

The first step in the data analysis examined the relationship between R, the number of Rorschach responses, and both other Rorschach variables and the drawing variables,

Table 2

Relationship between Number of Rorschach Responses (R) and Rorschach Stress Tolerance Variables

Rorschach Stress Tolerance Variables	Kruskal-Wallis H Tests for Independence of Samples with R
CDI	.720
D Total	.005*
AdjD	.121
SumV	.302
SumY	.028*
SumT	.658
SumC'	.000*
m	.086
FM	.025*
es	.000*
Adjes	.000*
EA	.001*
$M^a < M^p$	.013*
CR	.410
FM+m	.002*

* Significant at level p<.05

to detect any confounding effect of R (Exner, 1992). The only drawing variables related to R, using Kruskal-Wallis tests for independence were: Stick Figures (p=.005), Patterns (p=.045), and Separates (p=.025). Table 2 shows that of the Rorschach variables in the stress management cluster, D, SumY, SumC', FM, es, Adjes, EA, $M^a<M^p$ and FM+m

varied significantly with the level of R, while the remaining variables, CDI, AdjD, SumV, SumT, m, and CR did not. None of the three drawing variables that related to R (Stick Figures, Patterns, and Separates), also related significantly to the Rorschach stress management variables related to R (refer Table 3).

Table 3

Summary of Significant Kruskal-Wallis H Tests for Independence of Samples with Drawing Variables

Rorschach Stress Tolerance Variables	Significant Kruskal-Wallis H Tests for Independence of Samples with Drawing Variables
CDI	no findings
D	no findings
AdjD	no findings
SumV (Gp2)*	Food/Drink=.007 (high)
SumY (Gp2) (high)	Food/Drink=.029 (high); Damage =.015 (high); Shading=.049
SumT (Gp1)	Human Faces=.036 (high)
SumC' (Gp3)	Damage=.031(high)
m (Gp2)	Letter Numbers =.044 (high)
FM (Gp1)	Humans Together =.019 (high); Stick Figures=.048 (high);
FM (Gp2)	Weapons =.046 (high)
FM (Gp3)	Childhood=.007 (low); Pleasant Objects=.048 (low)
FM+m (Gp2)	Childhood=.006 (high); Objects=.009 (high)
es (Gp3)	Damage = .012 (high)
Adjes (Gp2)	Humans Together=.022 (high); Dotted Patterns=.035 (high);
Adjes (Gp3)	Objects=.021 (low)
EA (Gp3)	Humans Alone=.022 (high); Commons =.002 (high)
EA (Gp1)	Human Faces=.011 (low)
$M^a < M^p$	Minimum6=.013 (high for $M^a < M^p$) ; Symbols =.017 (high for $M^a > M^p$)
CR (Gp1)	Minimum 6=.034 (high)
CR (Gp2)	Damage=.033 (high); Rotation=.012 (high)

The figures in brackets indicate Rorschach variable grouping that had the highest frequency of the particular drawing unless otherwise indicated.

Table 3 shows the relationships between the Rorschach stress management variables and the drawing details. In general, drawing more of specific drawing details was

associated with higher levels of stress or anxiety, although there were instances of the reverse.

To account for any indirect influences of R, we ran a series of binomial, logistic regression analyses, on each of the drawing variables, with R and each in turn of the Rorschach stress management variables as independent variables. Table 4 shows

Table 4
Logistic Regression Equations

Variables	Equation	-2 Log Likelihood	p
SumV, Food/Drink	Z= .248 -.051(R*SumV)	8.305	.004
SumY, Food/Drink	Z =-.2092 + .957 (SumY)	4.982	.026
SumY, Damage	Z =-18.584 + 8.381 (SumY)	8.979	.003
SymY, Shading	Z =-1.220 - .838(SumY)	3.783	.05
SumT, Human Faces	Z =.383 + .069(R*SumT)	5.574	.018
SumC', Damage	Z= -6.582 + 1.679 (SumC')	8.140	.004
m, Letter/Number	Z=-1.037-.048(R*m)	4.320	.038
FM, Stick Figures	Z= 1.076 -.08(R)	5.721	.017
FM, Humans Together	Z=-.560 +1.476 (FM 1) + 1.196 (FM 2)	7.085	.020
FM, Weapons	Z=-2.303+.051 (FM1) + 1.304 (FM2)	9.313	.009
FM, Pleasant Objects	Z=-.560 + .945 (FM 1) + 1.282 (FM 2)	6.086	.048
FM+m, Childhood	Z= .336 +.105 (FM+m)1 + 1.475 (FM+m)2	10.719	.005
FM+m, Objects	Z= .336 +.292 (FM+m)1 + 1.475 (FM+m)2	9.815	.007
es, Damage	Z=-1.526 –7.677(es 1) – 2.281 (es 2)	10.557	.005
Adjes,Humans Together	Z=-.147 + .657 (Adjes 1) + 1.219 (Adjes 2)	7.710	.021
Adjes, Dotted Patterns	Z=-1.763 + .876 (Adjes 1) + 1.325 (Adjes 2)	7.114	.029
Adjes, Objects	Z= .3345 + .754 (Adjes 1) + 1.337 (Adjes 2)	7.734	.021
EA, Commons	Z=2.485 -3.440 (EA1) – 2.313 (EA2)	14.365	.001
EA, Humans Alone	Z=1.992 –1.912 (EA1) – 1.169 (EA2)	8.126	.017
EA, Human Faces	Z= 2.442 –1.867 (EA1) – .437 (EA2)	8.097	.017
$M^a<M^p$, Minimal 6	Z=-1.079 +.036 (R* $M^a<M^p$)	6.420	.011
$M^a>M^p$, Symbols	Z=.802 –1.467 ($M^a<M^p$)	6.540	.011
CR, Damage	Z=-3.354 +.039 (R*CR)	3.756	.053
CR, Rotation	Z=-2.508 +1.313 (CR)	5.811	.016
CR, Minimal 6	Z= 1.300 –1.239 (CR)	4.797	.029

resultant the logistic regression equations, the –2 Log Likelihood Ratio and corresponding significance, while Table 5 summarises the findings and indicates which relationships between the Rorschach and drawing variables were; first, not affected at all by R; second, included an interaction between R and a stress management variable, and third, only involved R. Specifically, R did not contribute significantly to the relationship between the drawing and the stress management variables for the following specific relationships: SumY and Food/Drink, SumY and Damage, SumY and Shading, SumC' and Damage, FM and Humans Together, FM and Weapons, FM and Childhood, FM and Pleasant Objects, es and Damage, Adjes and Humans Together, Adjes and Dotted Patterns, Adjes and Objects, EA and Commons, EA and Humans Alone, EA and Human Faces, $M^a < M^p$ and Symbols, CR and Minimun6, CR and Rotation, FM+m and Childhood, FM+m and Objects. For six of the findings, an interaction between R and the stress management variable (SumV, SumT, m, M^p, $M^a<M^p$, and CR), related significantly with the drawing variable. That is the number of Rorschach responses partly influenced the relationship between the Rorschach variable and the drawing variable. For only one finding, that between FM and Stick Figures, there was a main effect for R.

Table 5
Summary of Logistic Regression Findings

Stress Variable as a Main Effect Significant Only (R not significant)	Interaction Effect with R Significant	R as a Main Effect is Significant
SumY and Food/Drink	SumV and Food/Drink	FM and Stick Figures
SumY and Damage	SumT and Human Faces	
SumY and Shading	m and Letter/Numbers	
SumC' and Damage	$M^a < M^p$ and Minimum6	
FM and Humans Together	CR and Damage	
FM and Weapons		
FM and Childhood		
FM and Pleasant Objects		
es and Damage		
Adjes and Humans Together		
Adjes and Dotted Patterns		
Adjes and Objects		
EA and Commons		
EA and Humans Alone		
EA and Human Faces		
$M^a > M^p$ and Symbols		
CR and Minimun6		
CR and Rotation		
FM+m and Childhood		
FM+m and Objects		

Discussion

After accounting for the influence of R, significant relationships between drawing details and the Rorschach stress management variables were evident.

Drawing details and Rorschach Shading Variables: These variables measure self-critical attitudes (SumV); feelings of hopelessness (SumY); the need for closeness with others (SumT); and dysphoric feelings (SumC') (Weiner, 1998). Drawing food related items was associated with a greater tendency toward both self-critical attitudes and stress-related hopelessness, perhaps indicating that subjects who drew these objects associated food with being comforted, albeit metaphorically. Depicting objects, which were damaged or situations in which damage had occurred, was related to dysphoric feelings and hopelessness, indicative of depressive tendencies. Thus, the drawing of a damaged object seems to be a representation of a depressive internal state. Further, using shading in drawings was associated with higher SumY scores. It would seem that identifying diffuse shading in the inkblots, shares some internal process which contributes to actually drawing shading, a process perhaps carrying feelings of hopelessness. This finding is consistent with earlier research on children's drawings, in which shading was found to be related to anxiety (Johnson, 1971; Machover 1949). Subjects who had SumT scores of 0-2 drew significantly more human faces than those with very high SumT scores. The presence of T 'provides a good indication of adaptive capacity to anticipate and establish close, intimate, and mutually supportive relationships' (Wiener, 1998, p.165). Giving more than one T response indicates 'that individuals are experiencing more needs for closeness than are being met in their present circumstances'. Thus, the finding that 0-2 T subjects draw faces suggests that drawing human faces face may reflect some confidence that one's attachment needs are being or can be met.

Drawing details and variables FM + m: The non-human movement variables, FM and m together represent the extent of the intrusive ideation which is beyond conscious control (Weiner, 1998) and separately indicate helplessness to external forces (m) and unmet need (FM). Adding letters or numbers to the drawing prompt was associated with m. Inserting letters or numbers may suggest an attempt by the subject to structure the prompt into something concrete, known or describable. A subject who feels helpless in the face of external reality may feel unable to manage the prompt adequately, (doing this task is itself an external pressure), and the addition of letters or numbers may be a way of avoiding the demand (to draw) without having to overtly refuse the prompt. Adding letters or numbers would then represent a somewhat ineffective attempt to manage this particular external demand.

Subjects who tended to have greater unmet needs (higher FM scores) drew fewer pleasant objects and representations of childhood. As was the case with Damage, drawing Pleasant Objects may reflect an internal state of satisfaction that one's needs are being met, and the absence of Pleasant Objects may reflect a state of irritation that goes with having unmet needs. In a previous study on drawings and personality

characteristics, (Greenway & Milne, 2002) we suggested that drawing pleasant objects is associated with an outgoing personality and represents and active co-operation, which is consistent with this finding that subjects who felt that their needs were not being met, tended not to draw pleasant objects. These subjects also drew fewer representations of childhood. Depicting regressive-type drawings, perhaps surprisingly, may be an adaptive feature and the ability to do so may mean less irritation relating to unmet needs. Subjects with moderate levels of FM, that is a good balance between demand and fulfilment of need, drew more weapons, an unusual finding which warrants further exploration. We had thought that drawing weapons may tap hostile or aggressive tendencies but did not find support for this idea (Greenway & Milne, 2002). Drawing people together was associated with low FM scores. This may mean either that drawing people together reflects the feeling that one's interpersonal needs had been adequately met or alternatively that they have minimal recognition of their needs. Drawing people together thus may represent a level of contentment, an interpretation consistent with a previous finding that drawing people together was more typical of people who are be open-minded, spontaneous, informal, and creative (Greenway & Milne, 2002).

Drawing Details and Rorschach Variables AdjD, es and Adjes: People feeling high levels of both internal and external demands (es) drew more pictures with Damage in them, which may suggest a direct relationship between depicting damage and feeling stressed. More enduring stress, that is, indicants of situational stress having been removed from es to form Adjes, was related to drawing fewer objects. This may suggest that drawing a relatively small number of objects reflects a degree of cognitive constriction caused by feeling stressed. People with normal levels of internal and external demands, (Adjes=6-10) drew more humans together and dots. Drawing humans together also related to feeling free from the tension caused by unmet needs. This drawing detail seems to indicate a form of psychological satisfaction, as suggested above, in that ones needs do not appear as pressing and demands are not experienced as overwhelming. Similarly, drawing dots indicated an average experienced demand. We previously found that drawing dots was more typical of outgoing people (Greenway & Milne, 2002). It seems that subjects who drew dots were able to manage internal and external demands adequately.

People with sufficient psychological resources to cope with life's demands tended to draw people alone more frequently and had high frequencies of common objects, (i.e. objects which more than 40% of the sample drew for particular prompts). This finding suggests independence rather than aloneness. The ability to recognise and draw common responses probably indicates a freedom from internal preoccupations, which otherwise subjects might project into their response to the prompt. People with fewer psychological resources drew fewer human faces. As mentioned earlier, drawing faces was associated with not feeling the need for closeness or attachment, this further finding for human faces reinforces the interpretation that subjects who drew them were not experiencing tensions around interpersonal closeness, perhaps because their resourcefulness and satisfaction in that area of their lives.

Drawing Details and Rorschach Variables (Ma>Mp, (Ma<Mp) and (CR): People who think more constructively and show initiative (Ma>Mp) drew more symbols, which is indicative of their ability to formulate and expresses ideas. Conversely people who rely on escapist thinking to deal with situations, (Ma<Mp) tended to draw minimally on the first 6 prompts presented. We had hypothesised that Minimal 6 might measure resistance to the test. This finding might support this idea or alternatively this drawing detail might reflect an inability to direct ones thoughts constructively to the task at hand and perhaps to take an inadequate or passive approach to the task. Emotional constriction, (CR) as the inability to express unpleasant feelings, was associated with drawing damage, further evidence that the presence of damage in drawings may be a maladaptive feature, reflecting difficulty in expressing feeling, which is unable to be resolved through the use of projection by the act of drawing.

This microanalysis of the characteristics of drawings associated with stress management variables, in general, makes some sense. Drawings with humans faces, representations of childhood, pleasant things, general objects, people together, humans alone, dots, and symbols were associated with adaptive characteristics specifically in relation to stress management. While drawings with food, damage depicted, shading, adding letters or numbers and drawing minimally in the first six drawings were associated with the more negative aspects of stress managements, such as helplessness, unpleasant affect, unmet needs, and being overwhelmed by demand.

This study has demonstrated that stress may be inferred from the content and style of people's drawings. It is a preliminary study that requires replication. As more data becomes available we expect to be able to form sub-groups based on statistical meaning, rather than relying primarily on intuition to form the categories and to analyse the data according to gender, which would seem to have some important differences. It is likely that there are gender differences but the sample was too small to permit division into subgroups with adequate frequencies. Lastly, the drawing detail categories need to be further refined to form coherent clusters.

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