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SIS

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**SIS JOURNAL OF PROJECTIVE PSYCHOLOGY AND MENTAL HEALTH** is published twice a year (January & July) by the **SOMATIC INKBLOT SOCIETY** and is devoted to the advancement of research in the areas of projective psychology, personality assessment, psychotherapy and mental health. The journal is broadly concerned with the development of inkblot tests and personality assessment in clinical, counselling, cross cultural, organizational and health psychology settings. It aims to reach clinical psychologists, psychotherapists, psychiatrists, social workers, medical professionals and professional managers interested in the understanding and modification of human behaviour.

The journal includes (a) research articles (b) book reviews (c) brief reports (d) news about conferences etc. and letters to the editor.

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Sd/
Dr. B.L. Dubey, Editor-in-Chief
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## Contents

| | | Page Nos. |
|---|---|---|
| 1. | Editorial : **Wilfred A. Cassell** | 1-2 |
| 2. | The Somatic Inkblot Series Continuing<br>**Rosarch's Conceptuatization W.A. Cassell** | 3-13 |
| 3. | Cross-Validiation of SIS-II in Psychiatric Population<br>**S.K. Verma, D.P.ershad & R. Nehra** | 14-17 |
| 4. | Diagnostic and Therapeutic Utility of Somatic Inkblot Series-II and **Rosharcg B.K. Dubey, Mridula Mishra, C.B. Dwicwdi and Nalini Mishra** | 18-25 |
| 5. | Somatic Inkblot Series-Video in Adolescents<br>**Padma Dewedi, Mridula Misra and Wilfred A. Cassell** | 26-31 |
| 6. | Relicility and Validity of Somatic Inkblot Seties in India<br>**D. Pershad and B.L. Dubey** | 32-37 |
| 7. | Rosharch and the Cretive Artist<br>**S. Rosharch** | 38-47 |
| 8. | A Study of Somatic Inkblot Series-I in Crnary Cases<br>**S.P. Rathee, D.S. Goel, M.L. Chawla, D. Salenha & B.L. Dubey** | 48-61 |
| 9. | Body Imagery in Vertigo Patients Dharamvir,<br>**D. Pershad, B.L. Dubey and S.B.S. Mann** | 62-69 |
| 10. | Somatic Inkblot Series -I in Male Transexuals<br>**M. Shay and P.K. Srivastava.** | 70-74 |

SIS J. Proj. Pst. & Ment Health (1994) (1) 1-2

## Editorial

Welcome to the Journal of the Somatic Inkblot Society. I want you to tell that this is your journal. I hope that these pages will provide a forum in which you will participate. My dream is that this journal will bring together the knowledge and sprit of doctors, artist, educators, students, and therapists to share theories, findings, experiences, interpretations and feelings. I am looking to give and receive support, both emotional and scientific.

The use of inkblots has evolved from a type of parlor game to an incredibly useful projective aid for psychological assessment and healing. It will only be through work in the 21$^{st}$ century that the full ramifications of its healing power will be known. It gives a voice to the speechless and the previously unheard “inner cry”, allowing both the suffering individual and the clinician a way to hear and interpret the individual’s own special language of pain. It gives the sufferer and therapist a tool for hearing helping and healing. With hearing comes the potential for understanding, and with understanding, the potential for empathy. Empathy is something we probably all strive for, yet one of its by-products is pain for the therapist.

Employing any of the Somatic Inkblot Series (SIS) procedures is not like using non-projective test, which are multiple levels of abstraction away from the images of human suffering. The reviewer is necessarily forced to share the pathological projection and the nightmares of the suffering individual. The SIS Society will help professionals process such painful material.

In this forum we will receive technical and scientific support as well as share case histories, successes and failures, scientific findings, new ideas and technological advances through computer disks and electronic databank systems. The possibilities are bound only by our imaginations.

Due to their ambiguous nature, inkblot techniques are more amenable to the use of content analysis, rather than the highly abstract statistical scoring systems frequently used. This may affect how that part of the scientific community, to whom measurements and statistics are important views the efficacy of the various SIS instruments. While mathematical scoring is important, most indices cannot reflect the intensity of the pain experienced by the Suffering individual, who frequently may not even be aware of what is troubling him or her. Non-projective techniques ordinarily only measure what the person already understands about his situation, not what is hidden deep inside? The SIS procedure also evaluates positive traits, such as the love of the individual for himself and others.

Through the SIS inkblot award program, the society will give grants to study such research projects as the application of the SIS in healing populations affected by typhoons, earthquakes or other natural disasters or the ravages of war.

Through shared findings, we can look at the human condition in a phenomenical way. We can form global computer networks to keep us advised of the latest uses for technology and to create new ones. Certainly no one culture has cornered the market on suffering or joy.

On a broader scale, I hope that together, we will bring relief to our troubled word. Our capability to destroy far outweighs our capability to heal the pain that level of destruction reflects. We as healers can be a force for good in a world be set by evil, if we are willing to work together and open our hearts and minds to the loving human spirit in each one of us.

W.A. Cassell, M.D., FAPA,APC.

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SIS J. Proj. Pst. & Ment Health (1994) (1) 3-13

# The Somatic Inkblot Series: Continuing Rorschach's Conceptualization

**Wilfred A. Cassell**

The Somatic Inkblot Series (SIS) continues Rorschach's conceptualization that individuals project their own unique mental imagery into ambiguous and semi-ambiguous visual stimuli. The series is available in five forms (cards, booklet, and videotapes). It provides multi-sensory enhancement not available when Rorschach was developing the inkblot technique that has made and continues to make a major contribution to personality assessment.

The Semitic Inkblot Series (SIS) evolved from an investigation of body image distortion in women with hirsute (Fisher and Cleveland, 1958; Hollender and Cassell, 1965) and a study of Rorschach "penetration scores" (Cassell, 1964, 1965). The first of two somatic inkblot series was developed in 1960 as a 20-card set of one and two color ambiguous and semi-ambiguous visual stimuli evokes spontaneous responses associated with body imagery, need and drive states, personality dynamics, and the respondent's unique percepts. Like the Rorschach, somatic inkblots tap both the conscious and unconscious mind but they intend beyond Rorschach in a multi sensory approach with more inkblot imagery available in traditional card for mat paper booklet, and VHS videotape. The test is formed reliable and valid (Dubey et al,1992).

**Administration:**

The card form (SIS-I) is administered in the same way as the Rorschach, one card at a time, eliciting spontaneous response by free association triggered by inkblot content.

The booklet from (SIS-II) can be administered by the therapist or taken by the patient at home or in the waiting room. Responses are written on the booklet itself.

The videotape version (SIS-VHS) is both visual and audial. Relaxing background music is played as inkblot images appear then fade, separated by color photos of flowers.This introduces a new dimension to projective testing. Soft repetitive background music and the regular sequence of visual stimuli are not only attention getting and focus attention but induce a relaxed, receptive state conducive to projective testing, perhaps a light hypnotic trance state. Like the Booklet form the videotape version can be administered in the waiting room or at home, responses written to each inkblot as screened, or with the therapist present and taking notes as the patient responds to each of the inkblots. There are three videotapes "SIS-I 20 card video, SIS-II 62 image video and SIS Living images (40 images).

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**Scoring:**

The Somatic Inkblot Series can be scored qualitatively, by content alone, a frequent choice of busy clinicians, but also quantitatively, by calculating eleven indices such as: Total Number of Responses,

Human Responses, Animal Responses, Anatomical Responses, Sex Responses, Movement Responses Most Typical Responses, Typical Responses, Atypical Responses, Rejection of Images and Pathological Scales (Pathological Anatomy (PAS), Hostility and Aggression (HAS), Depression (D) and Paranoia (P), desirable in research setting.

**Qualitative Interpretation and Scoring:**

A helpful qualitative scoring device is asking subjects which three images were “most liked: and which three” “least liked.” Beginning with the most positive imagery lessens anxiety and defensiveness and facilitates later detailed inquiry. The most significant responses are the least liked, those negatively perceived.

Some clinicians prefer to use the Holtzman technique (1965) of using only the first response to each inkblot image for interpretation or scoring. Preservation of an organ system or body part and its associated perception suggests hypersensitivity to that area. Unusual percepts suggest deviation from normal cognition or affect, such as eyes and paranoia, penis and sexual per-occupation or post-rape trauma (Cassell, 1980).

The entire series of inkblot images can then be scanned for any emerging pattern of preservation. Test taking behavior can be significant such as hurrying through the test having difficulty finishing it, impoverished perception, exaggeration or minimization in affect or cognition, extraneous repressed material bursting through, or many rejections.

An example of a typical qualitative inquiry is the Chinese pagoda seen on Image A23 where a spinal cord is relatively clearly shown. Asked to elaborate, the patient who suffered server chronic back pain replied: “It’s in Shangri-La away from the world where there are no problems” (or pain). A woman who suffered years in a bad marriage with an abusive husband saw “a mean man” in Image A8, being chased by a man on A9, her own bruised body on B10 and a knife fight on B15.

**Quantitative Scoring:**

Four scoring scales can be used to quantify pathognomic anatomical, depressive, hostile- aggressive, or ‘paranoid responses:

**Pathological Anatomy Score (PAS):**

PAS responses are those, in which the body is perceived as diseased, usually relate to specific body parts, organ system, or function, and are evaluated qualitatively. Anatomical imagery is similar to that described in Rorschach responses of “diseased anatomy” (De Vos, 1952). Body parts seen as “red, inflamed, infected, blocked broken” or “cancerous” and organs seen as “sore, painful” or “hurting” should be further assessed by detailed inquiry and follow up interview.

**Depression (D):**

Depression is elicited overtly or covertly. Overt expression is direct and uninhibited, what Freud referred to as manifestation. These patients require little or no further testing. Covert depressives are good candidate for projective which in many cases is the only way to access their depressed mood. A four-point scale can be used to score depressed inkblot imagery:

| | | |
|---|---|---|
| Score | 0 | if there is no depressive content; |
| Score | 1 | for mild depressive content usually seen in animal or human faces; |
| Score | 2 | for moderate depressive content, typically marked affect such as weeping or grieving” |
| Score | 3 | for severe affect associated directly with anatomy such as heavy or broken heart. |

A high number or rejections may also signal depression.

**Hostility and Aggression Scale (HAS):**

Responses involving physical assault or injury suggest hostility and/or aggression (Cassell, 1997). A four-point scale can be used to score these responses:

| | | |
|---|---|---|
| Score | 0 | if there is no hostile or aggressive content, |
| Score | 1 | for mild content such as a weapon that could be used aggressively, a predatory animal at rest, passively hostile attitude or bowel function, |
| Score | 2 | for moderate content such as animals or humans in hostile or aggressive contact or abstracted expressions or direct hostility or aggression, |
| Score | 3 | for severe expressions such as mutilation, murder, killing, or dismemberment. |

**Paranoia (P):**

Eye and animal or human mutilation responses are frequently projections of paranoid ideation. Further questioning often elicits overt paranoia. Negative responses to SIS images B15 (knife) and B21 (gun) warrant further investigation. Responses can be quantified using the HAS scale (above).

**Interpretation:**

Interpretation of projective test responses is a "Judgment call" involving knowledge of the field (theoretical, clinical, and experimental), skill in the method based in supervised and independent practice, and diagnostic experience with a diverse clinical population. Projective testing taps the same type of imagery and symbolic thought as dreams, fantasy, and delusions and hallucinations. Freud and later Fromm and Jung described the full extent of such imagery. Ericksonian hypnosis emphasizes metaphor applied therapeutically. Literature on art therapy is especially useful in this regard (Kwiatkowska, 1978, Ulman, 1965).

Other scoring indices such as total number of Responses, Human Responses, Animal Responses, Anatomical Responses, Sex Responses, Movement Responses Most Typical Responses, Typical Responses, Atypical Responses, Rejection of Images are scored and interpreted like Rorschach or Holtzman test.

However, emphasis is placed more on content analysis. Contents are more important than indices. It helps in understanding the unconscious process and inner cry of the individual. Two cases are described for the better understanding of the test.

**Case 1:**

This 35-year old man was admitted for treatment of depression and panic attacks. He also has a history of some alcohol abuse.

In viewing the Somatic Inkblot Series video, he reported one of the images that bothered him most was B17. This is most unusual because many people see this as a warm, loving, pulsating heart. He simply saw it as a heart. When asked to give associations to this he spoke about his panic attacks that he has for many years. In these, he would first develop a feeling of anxiety and then some type of disturbance and sensation in his hart that was not true pain. After a few moments, the heart would begin to ache. When it lasted all day, it would become a dull pain and spread into his back and left arm. His left arm would then become a dull pain and spread into his back and left arm. His left arm would then become numb. Both hands would either get warm and be perspiring, or they would get cold. In resolving his symptoms, the numbness would first

leave, then the anxiety, and eventually the pain. At this stage in his Panic Disorder, he was sensitive to oil fumes and smells such as these would precipitate the pain which would last for several hours.

Following through in terms of the theme of pathological perception of the heart, he saw A5 as a man with a heart for a head. Clearly this result reflects increased cardiac consciousness. B19 he saw as a broken heart and the sun. His associations to the broken heart when asked if he had ever experienced a broken heart went back to age 20. He then spoke with some feelings of anguish and sadness about having lived with a girl from age 15 to 20. At that time he had been unfaithful to her and when she discovered this she asked him to leave. He felt deeply hurt, rejected and since then, has not allowed himself to feel love. He denies love for his wife, saying that he likes this wife. He denies feeling any love for his children saying that he just likes them, but he is extremely irritable and sensitive to their making noise and other problems. Apparently, he is trying to send his children away to live at their grandparents in order to get relief from the stress.

Further information about the heart perception emerges in regard to images A16, 17 and 18. On A16 he saw the lungs and the heart, showing again the heightened cardiac awareness and noted previously on A15. A17, was consistent with this, he saw an x-ray and a heart. Remarkable enough, in spite of this heightened cardiac awareness; on A18 he saw the llama's head sticking through something. Ordinarily this red area on the outside is seen as a heart especially since moments earlier he had shown heightened cardiac awareness. Significantly at this time, the heart image brought out any unconscious anxiety and resulted in the phenomenon of somatic repression, which was first described in the book "Body Symbolism" [Cassell, 1980].

Other responses of significance relating to his intense anger episodes. He does carry a DSM-III, AXIS-II diagnosis of Passive-Aggressive Personality Disorder. On A1 he saw two chickens and then a man screaming. When asked about the screaming he said in fact that he screams at his children a lot. He feels "like ringing their necks and sending them away."

The respondes to A9 is of interest he saw eyes between a man and woman. When asked if he had had feelings, he tended to minimize and deny these mainly manifest from regressive tendencies because young children frequently see eyes between a man and woman and it is a psychological level of immaturity.

In regard to other old trauma, B1 was seen as a fire. His associations to this took him back in time to an early trauma when at, age 12, he woke up and the room was full of

smoke and a fire had been started. He remembers that his mother was very upset and screamed and was threatened by this. He claims that he simply went out and got water and put it on it and, even through, it was life threatening to him, he could have suffocated, he denied any emotional response. Thus, in this sense, he never processed this early trauma and years later it shows up as an image of “fire”.

His response to B2 was a nuclear explosion. To this his associations led him to this multiple problems with anger and what in consistent with the aggressive side of his Passive-Aggressive Personality Disorder. He cited an example which had occurred in the hospital when anger just comes out and he can hardly control it. A male peer had accused him of being rude when he played the organ in proximity of those watching TV. When confronted in front of the nurses by this, he became enraged and almost assaultive, threatening to leave the hospital.

Consistent with his irritability for both B15 and 21, he clearly picked out the hostile imbedded material. For B15 he saw knives and B 21 a pistol being fired. For him, aggression is very close to the surface.

B 22 he saw as a life being sucked being out of someone. He gave associations to this as death and he reported how he feels like dying when panic attacks. He had a long history of going to the emergency rooms to be reassured by this and at this stage in life, tended to see that his symptoms were perhaps not life threatening, although he still felt that he was dying at times.

The image B 24 was seen as a dead fetus. He then associated that this reminded him of a miscarriage that has occurred four years ago when his wife almost died. She refused to go to a local hospital when living in Boston and lost much blood. He was very fearful that he would lose her. This image also brought forth past situations of when his wife had an abortion and he denied he had any feelings about this.

The last image to be considered, in terms of body awareness or disturbances, was Bb 29 he saw as a pain; a boy with a leg cut off. He had in his knees. He immediately spoke about how this reminded him of discomfort that he had in his knees. He had just had, in the hospital, his knees x-rayed and the x-rays did not show anything, but he had a history of ‘a weird feeling … more like a weakness.” He gets this weak feeling in his knees quite frequently and for the preceding six months, had a restless feeling consistent with the restless leg syndrome at bedtime.

The last image to be noted was B 31, which initially he gave, as the association, magnetic flux and then was able to see the family. When asked about his childhood, he really had not experienced much love in his family. He cited episodes in which his

stepfather had been mean and abusive and when asked his relationship with his mother he said that while he liked her, he never could recall having loved her. It might be noted that his father was in the Marine Corp and drank to excess and died when he was nine. The patient denied that he had any grief reaction to this and was never close to his father. His two elder brothers had a history of similar-type panic disorders and both of them have attempted suicide. The patient himself had experienced suicidal thoughts, but had never attempted suicide.

**Case 2:**

This is a 55-year-old, married schoolteacher who is admitted for treatment of Major Depression. He also suffered from significant medical problems as follows: diabetes mellitus, adult onset; bronchial asthma; and chronic low back pain, related to moderate spinal and degenerative changes of the lumbar spine. There was also a history of alcohol abuse.

In the impatient setting, in addition to having antidepressant medications, he was given empiric Voltaren, 50 mg po bid, for his back pain.

In viewing the somatic inkblot video, he selected as his favorite images, A 27, which he saw as female breasts, flowers, and leaves. He stated that he liked out because it was supportive and sensual. This relates to a positive and somewhat dependant relationship that he had with his wife. He repeatedly, in speaking about having to shop teaching and modify his role because of his back pain, was concerned that it would force him to be economically dependant upon his wife. He spoke about this with sufficient frequency that or seemed to be an exaggerated concern.

The next favorite image was A9, which he saw as two dancers, swing type. This is a wholesome response.

The third favorite image was B11. He like it because; it seemed to fit" Significantly enough, B11 was seen as a war helmet, signifying an intense rage. It might be noted that this represses the somatic content, namely of lungs. He is anxious about his lungs because of the history of bronchial asthma and difficulty of breathing when under stress. The image, which he uses to superimpose upon the lungs, is that of a war helmet, signifying intense rage. This relates his own intense rage prior to hospitalization. He felt rage at his situation with his back pain and teaching and was, at time, raging at himself in a suicidal way. He associated to this inkblot image feelings of suicide that when driving, prior to hospitalization, he had an impulse to crash his car into oncoming traffic.

The three images that he liked least, first of all were A6, 7 and 8. He said they had no meaning; however in responding to A6, he saw the right lower object as a teddy bear and then instead of seeing the full gestalt figure of a person, he saw it as a “orange in a press; reflecting the pressure that he felt with his difficulty in employment and the pressure within his body with the back pain.

A7 he saw as an apple above a dancing image, arms outstretched. It is unclear why he disliked this, but again it had a gestalt quality and he did not like the gestalt aspect. The third image, which bothered him, the most was A8 he saw with a person with a penis exposed. Again, in association to this, he saw this as a rather pressured figure, reflecting his own pressure.

Moving in to those images, which had some clinical; relevens, A3 he saw as a flower pulled up by the roots. The feeling of the flower being pulled up by the roots was his recognition that he was unable to continue in his role of teaching and that he felt disturbed because of this, as through pulled out by the roots. Then, the next image that I wanted to comment on was A 4. He saw this as a canyon or precipice; the feeling of falling and losing control. It reflected his fears in terms of change. The next image to be commented on is A10, he saw as a face in much distress, anger, and suspicion. This clearly reflected his anger and some paranoid feeling that he felt he could not trust himself. For example, when driving, he could not trust himself when he had impulses to drive the car into some other vehicle. A11 he saw as a rock formation in the wilderness, a cave structure and dead trees. The dead trees reflected his feelings of deadness and depression. A13 he saw as hands in grasping, clinging movements, afraid to let go. This reflected too, his concern about changing his role and being concerned about leaving a job, which met his financial needs. A21 was seen as a metal fragment as if broken loose by an explosion. Again this reflects the inner fragmentation and pressure he felt. A 22 was seen as a sharp, metallic instrument and wood. This avoidance of the anatomical content he is consistent with his repressing to the area in which he has pain. A23 he initially repressed the somatic content of the spinal cord saying cooking utensils, stacked. He then, eventually, indicated it could be a spine with abnormal vertebrae. He gave further associations that this was a terribly deformed spine, reflecting his own alteration in his spine image. A 28 was seen as muscles, layered, triceps, under great strain, extend. Here again, the theme of muscles being strained reflects his own concerns about his back and so on. A29 was seen as some form of human tissue, largely fatty tissue, serious, violated, and bloody. His associations to this again reflect more of a felling like anger and his own disintegration in body image with his somatic concerns. B1 was seen as a cyclone, destruction, with enormous force. Again, symbol-

izing the tremendous forces of frustration and anger, which he felt to hospitalization. B2 was seen as a possible cut with blood flowing from an opening in the skin. He reflected the blood as being vulnerable and bleeding events taking over his life and he had lost control. He saw his life as being driven by threatening events. The threat of having to change his role, and leave teaching.

B 3 was seen as an abstract art type of thing, which reflected, an explosion and tearing of something apart. Again, the theme of destruction. B10 was seen as women with a disfigured stomach. In speaking about this, this he referred to as a horrible picture and the tearing or his stomach bothered him considerably, reflecting again his own destruction and self-image. B14 was seen as the base of a skeleton, enlarged tailbone. Here, the enlarged tailbone is clearly a direct projection of his own spinal image. B15 he did correctly recognize the knives. He saw a child's drawing filled with sharp and threatening objects. The threatening objects signify the threat that he has in his life with a role change and so on. B16 was seen as a religious object used to slay sacrificial victims. His associations to this involved "such as cutting out a heart." He later spoke about how when he is really angry, he had a feelings that his heart was burring and had heart pain. In the review, he also then noticed that "I saw it as a spine with a large tailbone;" again being a direct projection of his own body image pathology. It was significant that on B18, he saw as a religious object, very primitive, hard material, repression of the phallic material. B19 he saw as three hearts, one in the center; significant sorrow and shattering; tentacles grasping. He indicated when he felt angry, his heart beat very fast and there was a feeling it would burst with pain. B24 was seen as looking at a ground through binoculars, from a great height, confused. His direct association with this was how he felt the first day he came to treatment. He felt very detached, confused, and depressed. B25 was looking down through the eye of a hurricane; very unstable. Again the theme of forces and pressure and tension. Then B 29 he saw as a man, either running or has 1-1/2 legs with a sad expression; the latter clearly reflecting his depressive state. These represent the overall interpretations to his SIS response and his association with his symptoms.

It might be recognized that he found that it was very uncomfortable taking the test and wrote in this plus he did not understand it but when the results were interpreted to him, he appreciated the significance of the test and was somewhat amazed to see how it related to his own life and heeled him clarify his moves for the future. He felt quite relived after him clarify his moves for the future. He felt quite relieved after this as well.

It SIS response were interpreted on the basis of indices, probably very little could have been achieved. Both cases are demonstrated to see the power of somatic Inkblot series for complete understanding of a person.

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SIS J. Proj. Pst. & Ment Health (1994) (1) 14-17

# Cross-Validation of SIS-II in Psychiatric Population

**S.K. Verma, D.Pershad and R.Nehra**

SIS-II was administered to 25 adult psychiatric patients in order to see whether it can differentiate between normal and patients on the basis of selected variables. The results confirmed the hypothesis that psychiatric patients gave less number of responses, rejected more images, and gave more atypical and fewer typical responses. Surprisingly they gave fewer number of sex responses although anatomical responses were comparable in the groups. The results are encouraging and favor continuation of this study on a larger, more varied sample.

Disturbances of body image are the disturbances of the perception of the body ie diseased mind. Descarte's body mind dualism are very important to understand the human being. As the saying goes "sound mind in a sound body", similarly 'Unsound mind in an unsound body" or disturbance of body perception in a diseased person show that body and mind are so intertwined that disturbance in one causes disturbance in the other. Cassell (1990) has recently developed a tool (viz. Somatic Inkblot Series) to study these body image disturbances in psychiatric patients. A relationship has been proposed between physical disturbances and projected anatomical responses (Cassell, 1969, 1971, 1972, 1977, 1980, Dubey and Cassell, 1991), although in a current study from India on heart patients, the interim results suggested that somatic preoccupation was denied by heart patients (Goel et, al. 1990). It might be of immense practical help to know whether SIS is a practical tool to identify body-image disturbances in psychiatric patients in India and to its relationships with socio-demographic and clinical variables.

The authors started a research study with financial help from P.G.I. Research grant. The present findings are based on the preliminary report of the same. The work on the project is ongoing and this report only deals with aim one of that project, viz. the extent and type of body image disturbances in psychiatric patients. At the time of writing this article, the data was being collected on more patients for detailed analysis and validation.

**Material and Method:**

**Sample:**

It consists of 25 adults, literate, psychiatric cases attending the clinical psychology division of Psychiatry OPD of Nehru Hospital, attached to Postgraduate Institute of Medical Education and Research, Chandigarh. Sample characteristics are as follows.

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Part of a larger study funded by a research grant from PI, Chandigarh.-INDIA

**Table 1**
**Sample Characteristics**

| | | |
|---|---|---|
| Age | Mean= | 35.24 years |
| | S.D.= | 11.28 years |
| Sex | Male= | 15 |
| | Female= | 10 |
| Education | | |
| | Upto IX = | 5 |
| | X-XII | 5 |
| | Above XII = | 15 |

**Method:**

SIS - II is a self-administered test (Cassell, 1980, 1990) and consists of inkblots to stimulate somatic percepts. The subjects is required to report what he sees in these unstructured inkblot . It takes nearly 30 minutes for administration.

**Procedure:**

Patients with psychiatric illness attending psychiatric OPD were requested to take the test. Those who volunteered were administered this test. The diagnosis of the case was made by the consultant-in-charge of the case and socio-demographic characteristics were recorded after assuring the patients about confidentiality of their responses. They were told that their cooperation/non-cooperation for this test will not in any way effect their treatment and they would be free to withdraw at any time from the study if they desire so. In actual practice, none refused to cooperate or left the study in between.

**Analysis:**

The Present analysis was limited only to the following categories for comparison with norms provided on 100 healthy adults:

- Total number of responses
- Rejection of images
- Most Typical responses
- Atypical responses
- Movement responses
- Anatomical responses
- Sex responses

**Results:**

Results are shown in Table 2

**Table 2:**
**Comparison of Psychiatric Cases and Normal on SIS- II**

| Categories | 100 Normal | | 25 Psychiatric Cases | | In Psychiatric Patients |
|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | |
| Total Response | 74.08 | 12.40 | 58.20 | 5.31 | Less |
| Rejection (Mean %) | .82 | 2.00 | 6.10 | 5.34 | More |
| Human Responses | 14.66 | 5.46 | 17.72 | 4.69 | |
| Animal Responses | 8.65 | 4.69 | 7.84 | 3.49 | |
| Anatomical Responses | 9.18 | 4.24 | 9.92 | 8.11 | |
| Sex Responses | 4.12 | 2.58 | .08 | .27 | Less |
| Movement Responses | 9.60 | 5.30 | 20.68 | 8.50 | More |
| Most typical | 13.68 | 1.98 | 8.24 | 3.01 | Less |
| Atypical Responses | - | - | 31.52 | 7.30 | |
| 0-2 | 93% | | 0% | | Higher |
| 3+ | 7% | | 100% | | |
| Typical Responses | - | - | 17.80 | 6.33 | |

**Conclusions:**

On the whole, then, psychiatric patients (a) give less number of responses, (b) reject more images, (c) give less sex content, (d) give less number of most typical responses, (e) give more atypical responses and (f) give greater number of movement responses.

It justifies further work, which is continuing and will be reported later on.

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SIS J. Proj. Pst. & Ment Health (1994) (1) 18-25

# Diagnostic and Therapeutic Utility of Somatic Inkblot Series-II and Rorschach

**B.L. Dubey, Mridula Mishra, C.B. Dwivedi and Nalini Mishra**

Somatic Inkblot Series is the lates test in Inkblot techniques. It was used on 100 healthy adult, 100 adolescents, 39 Neurotic and 41 Schizophrenics to find out the pattern of responses and indices descents, 39 Neurotics and 41 Schizophrenics to find out the pattern of responses and indices discriminating normal from psychiatric group. Responses vary after therapeutic intervention, which is shown through a case study. Rorschach indices are quite reliable but SIS test was found beyond this and the power of the test is shown through the case study. SIS is found to have high reliability and consistency in earlier studies and has construct validity. The test was also found to be easy to administer and evaluate even by less trained mental health professional.

Projective test came into existence against the rigid nature of so-called objective questionnaire test. It is objective only for its administration, scoring and interpretation but not for its out come. People can manipulate their responses because of the transparent nature of the test. However, those who are not really trained and exposed with projective test prefer questionnaire technique.

The Rorschach test was made available for use in 1921 when it was published along with its manual (Rorschach, 1921). It has been used in different fields of research and most common, in personality and clinical field. It is one of the earliest personality tests and continues to be at the top as far as its research output and diagnostic utility are concerned. The Voluminous literature itself speaks about its validity and usability (Dubey, 1982)

Many Psychologists, however found cretin limitations of the Rorschach test. Huntsman et.al (1965) have reviewed the limitations of this test and commented that “A fundamental confusion in much of the controversy over the Rorschach arises from failure to distinguish between the Rorschach as project technique in the hands of a skilled clinician and the Rorschach as a Psychometric device that yields scores having relevance for personality assessment. The analysis of responses to inkblots has ranged all the way from one extreme of the projective-psychometric continuum to the other, when viewed as a structured depth interview. The Rorschach can be analyzed in purely qualitative manner, stressing the dynamic, symbolic nature of the content and interpreting the examiner-subject relationship from a strictly phenomenological point of view. Associations to inkblots, are seen as only one step removed from completely free association in a psychoanalytic session”.

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Every Rorschach worker adopts some kind of a scoring system. As soon as (s)he decides to classify a subject's responses to the Rorschach test, he shifts from a purely projective point of view to a psychometric frame of reference. The interpretation of the Rorschach protocol in most of systems is based on the total number of responses given by the subjects. The responses vary largely from subject to subject and diagnosis to diagnosis. The relationships between Rorschach scores and the total number of responses are complex and curvilinear (Fiske and Baughman, 1953; Dubey 1982, Dubey and Pershad, 1978). Dubey (1982) tried to control for the total number of responses and found that total number of responses have significant effect on various indices. Holtzman Inkblot Technique is a definite improvement over Rorschach test. However, because of its limitation over subject's response it looses its projective richness.

Probably because of these limitations of interpretations of ratios, many workers prefer content analysis/psychoanalytic interpretation of Rorschach (Cassell, 1979, 1980, 1989, 1989; Dubey 1982, 1985, 1988, 1989. Lerner, 1991; Piotrowski, 1985, Schafer 1954).

Somatic Inkblot Series (SIS) is the latest development in the inkblot techniques (Cassell 1965, 1980, 1980a, 1984,1990). It follows simple administration and content/ psychoanalytic interpretation.

The SIS is a structured projective diagnostic instrument and an adjunct to psychotherapy. It can help therapist more sensitively hear a suffering individual's cry for help, the 'inner cry' that is hidden not only from others but often from one's own conscious awareness as well. Since inkblot images are not based on verbal communication, they more effectively penetrate the "outer shell' of defenses and surface behavior. Since these are somatic inkblots involving body and organ imagery, a variety of personal problems and mental disorder have been identified by them. Eveready conversations are replete with examples of the, mind-body connection such as "broken heart" for depression or grief, "pain in the neck" for anger or frustration and many others. By developing a practiced eye and ear for this imagery, therapists can more directly share the perceptual world of the patients. There are five forms of SIS test as follows:

(i) SIS-I 20 Card set.

(ii) SIS-II 62-image booklet.

(iii) SIS-Video (Video tape/CD of SIS-II 62 Images)

(iv) SIS-I Video (Video tape/CD of SIS-I 20 cards)

(v) SIS-Living images (40-image video exclusively meant for women).

Scoring procedure is very simple and it follows a qualitative procedure of scoring and interpretation. Contents are more impotent than percentage of responses in different categories. For each image certain typical and atypical responses have been determined. Atypical responses need to be probed and interpreted using the principles of body symbolism. The findings of the test need to be collaborated with the case history and the symptoms of the patients. Psychoanalytic interpretation of images helps in understanding the underlying unconscious phenomenon and inner cry of the patients.

The present paper is a modest attempt to examine and narrate the diagnostic and therapeutic utility of Somatic Inkblot Series-II and Rorschach.

**Material and Method:**

One hundred normal, 100 adolescents, 39 Neurotics and 41 Schizophrenics were administered SIS-II test. The normal and clinical adults subjects were in the age range of 18 to 45 years whereas normal adolescents in the age range of 15 to 17 years. Nearly 75 percent of them were male. All were educated. 30 schizophrenics out of 41 were also administered Rorschach test. Individual administration of both the tests was followed. Rorschach's scoring was done as per Klopfer's method (1954) and SIS as per Cassell's method (1980). Important Rorschach indices were computed and compared with SIS indices. A case study is also shown for understanding the power of the SIS test and its therapeutic value.

**Results:**

To achieve the objectives, the protocols were scored for eight scoring categories i.e. Length of the protocol, Human responses, Animal responses, Anatomical responses, Sex responses, Movement responses, Most-typical/Popular responses and Rejection of images. The comparison of normal adults, adolescents and clinical groups is shown for diagnostic value in table 1.

The above table indicates that the mean number of responses in different categories differed significantly. Normal adults gave maximum responses on SIS than normal adolescents and clinical groups. Movement responses and moist typical responses were significantly higher in normal adults. The plausible reason could be their thinking in-group conformity-giving rise to most typical responses. Movement responses were significantly low in normal adults and may need explanation. Adolescents generally, look up to their family members and peers for fulfillment of their needs, which might give, rise to more human responses. More body awareness during this stage has given rise to more anatomical responses and somatic preoccupation. Various changes

in body may also make them concerned with body/anatomical responses. Rejection of responses was low in normal adults. On the basis of rejection of images one can screen out normal from abnormal cases (Dubey and Cassell, 1993; Dwivedi et.al, 1992)

**Table 1**

**Comparison of SIS and Rorschach Mean Responses**

| **Variables** | **Somatic Inkblot of Series** | | | | **Rorschach** |
|---|---|---|---|---|---|
| | Normal (Dubey, 1992) (n=100) | Normal (n=100) | Neurotics (n=39) | Schizophrenics (n=41) | Schizophrenics (n=30) |
| Total responses per Protocol | 74.08 | 59.75 | 63.92 | 64.71 | 13.50 |
| Movement Responses | 9.60 | 1.35 | 5.15 | 7.66 | 3.42 |
| Human Responses | 14.66 | 21.43 | 17.26 | 18.17 | 1.25 |
| Animal Responses | 8.65 | 3.65 | 8.82 | 10.56 | 6.65 |
| Anatomical Responses | 9.18 | 13.89 | 9.15 | 11.12 | 0.90 |
| Sex Responses | 4.12 | 0.98 | 3.15 | 3.59 | 2.70 |
| Most typical/Popular responses | 13.68 | 11.90 | 11.41 | 11.54 | 2.31 |
| Rejection of Images | 0.82 | 2.30 | 3.49 | 2.12 | 1.82 |

Clinical subjects gave more Animal responses on SIS and Rorschach. More animal responses might be indicative of frustration, hostility, immaturity and primitive behavior. It is also indicative of low socialization. Generally Schizophrenics give more animal and sex responses, which is found in this study also. Most Typical / popular responses are lowest in schizophrenics. Because of poor organizational capacity and disorganized thinking, schizophrenics give lowest popular response on Rorschach and lowest 'Most Typical' response on SIS in comparison with normal and Neurotics. Rejection of images were more in neurotics than normal and schizophrenics, is the established facts (Dubey, 982).

A case study indicating a few SIS and Rorschach responses before psychotherapy and 6 month after the psychotherapy is shown for therapeutic value of the test.

**Case Study:**

Mr. X, 36 yrs Male, Married, Engineer, working in Government organization, referred to one of the author (BLD) for neurotic problems gave the following responses on SIS in the beginning and then 6 months after the hypnotic relaxation therapy. Responses given after therapeutic intervention suggest the power of therapy and test both. Psychoanalytical interpretation will help in better understanding of responses than just scoring of various indices.

**Table 2**

**SIS and Rorschach Responses Before and After Therapeutic Intervention**

| | **In the Begining Before therapy.** | **6 Month after (20 Sessions) Therapy** | |
|---|---|---|---|
| SIS Image | Responses | Responses 2nd time after therapy | Expected Normal Responses. |
| A9 | Ants | Two ladies | Man & Women/Two Persons. |
| A13 | Devil's hand | Palm | an upraised hand. |
| A 25 | Sheep | Female Sex organ | Female sex organ. |
| A 27 | Hills-Waterfall | Breast | Breast |
| B15 | Modern Art showing At devil women | Knives | broken glass/knives. |
| B 22 | Dying man | Man resting | Body resting |
| B 28 | Man's shape | Women | Mother and child. |
| Rorschach | | | |
| IV | Demon walking | Demon walking | Animal |
| VI | Female sex I(down side). | Female Sex (down side) | skin |
| VII | Two birds sitting | Two animals sitting | Two animal |
| IX | 2 lions sitting | Two animals sitting | Two animals |

Table 2 suggests that SIS-II responses at initial stage (before therapy) were more abnormal and indicative of hostility towards father and mother with sex anxiety. Instead of seeing Man and Woman on image A9, he saw Ants which suggests his aggression towards her step mother. Case history also suggests mother-son conflict and the patient avoids visiting her parents. Devil's hand on image A13 also indicates his aggression towards his own people may be father who could not probably protect the interest of his son. Seeing sheep on image A25 and Water fall on image A27 is again a clear indication of aggression towards mother figure. Instead of seeing breast he saw waterfall-Hills. He was deprived of maternal affection due to loss of his mother during early childhood. Not seeing female sex organ on a25 is also his conflict with opposite sex. Dying man on image B22 might be his wishful thinking of death for his stepmother or even father. Disturbed mother and child relationship was further brought by his response on image B28 where he could not see mother and son the typical response but saw it as a man.

Likewise seeing Demon on Card IV of Rorschach might be indicative of his aggression to father and seeing him probably as tough as Demon. It clearly suggests his disturbed relationship with father. Seeing female sex on Card VI of Rorschach indicate conflict with his sex identity. This might be even his feeling of helplessness. His responses on other cards on Rorschach were quite normal. It further suggests that Rorschach responses could not bring out the inner cry of the patient whereas Somatic Inkblot images processed out lots of material buried into unconscious. If we wish to interpret responses by adopting methods suggested by different Rorschachians under indices will never bring out inner cry of the suffering individuals. Such scoring systems not only restrict the interpretation but also kill the spirit of projective test. Hermann Rorschach never wanted such restrictions. It is later Rorschachians who developed and tried to advocate such procedures. It is the content analysis and psychoanalytical interpretation, which can help, in better understanding of the person. Table 2 further suggests that after therapeutic intervention responses on SIS image changed positively. It proves both the power of SIS-II as therapeutic test and the effect of hypnotic relaxation therapy.

**Conclusion:**

It can be concluded that SIS-II is a powerful projective test for diagnostic and therapeutic intervention. Various indices such as Human responses, Animal Responses, Anatomical responses, Sex responses, Most typical responses and Rejection of images have high discriminating capacity. Responses to various images, which were abnormal at first intervention, became normal after therapy, proves that SIS is an adjunct to psychotherapy. It helps beyond the other existing inkblot tests.

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SIS J. Proj. Pst. & Ment Health (1994) (1) 26-31

# Somatic Inkblot Series-Video in Adolescents

**Padma Dwivedi, Mridula Mishra and Wilfred A. Cassell**

Forty eight adolescents in the age range of 15 to 17 years, studying in 10th Class were administered SIS-Video to find out: Whether adolescents differ from adults in their perception of inkblot images of SIS –Video and whether the length of the test could be reduced. It was found that the percentage of responses in human, anatomy and rejection of images was significantly higher in adolescent in comparison to adults. The Animal responses, sex responses, movement responses and most typically responses were more in adults than adolescents on SIS-Video images. The two forms of the test can be used independently without significant change in the pattern of responses.

The history of inkblot technique is difficult to trace in objective sense. However, references are available where it is mentioned that inkblot was used initially to study the imaginative capacity if school children. Konard Gehring a former classmate of Hermann Rorschach had discovered while using inkblots display on very large sheets of paper at the front of class room that certain children gave very similar responses to a variety of inkblots, even thought the figures were quite different in their form of class room that certain children gave very similar responses to a verity of inkblots, even thought the figures were quite different in their form and /or color. The perception on the inkblot generally depends on the experience of the individual during the process of physical and emotional maturity. The perception of children, adolescents and adults, therefore are likely to differ. On Rorschach inkblot test, the total number of responses and other indices are found to differ significantly in children and adults (Beck et al, 1967, 1971; Klopfer etal, 1954, 1956). The Somatic Inkblot Series is the latest test in the group of inkblot test for the understanding of psychology of the individual. SIS though latest, has a history of about thirty years. Initially it was developed in 1960 as Somatic Inkblot Series-I a 20 cards set. Encourage with the clinical utility of this test, self-administered technique – Somatic inkblot Series-II was developed in 1980. This consists of 62 images printed on 8-page booklet. The subject can read the instruction written on the last page and can write the responses in the space provided for each inkblot images. Cassell took advantage of new video technology developing fast through out the world and developed the third series of the test Somatic Inkblot Series-Video (1984).

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This SIS-Video is a color and sound videotape version of SIS-II images for supervised administration. The videotape begins with picture of flowers and soft background music followed by stimulus images one by one. Each image stays on screen for nearly 30 seconds. The images are colored and impression of movements also visualized. Many of the images have become sharper on screen compared to images in SIS-II. Background music continues up to the presentation of sample image and thereafter it stops. Floral presentation, however precedes each image, floral presentation with soft background music induce relaxation to the subject. Image with human content have been added to assess developmental maturity such as the mother child relationship (Image B28), Clinical issues such as patient-therapist communication (image B5), and suicidal-homicidal ideation (image B15) and B 21). Wayne Holtzman a recognized authority in projective methodology had observed that “Dr. Cassell had taken advantage of new Video technology’ in ‘a most welcome new projective technique for the assessment of personality and psychology. Unlike many other methods it is particularly appealing when used by the clinician and subject in an interactive, interpretive mode as part of the total diagnostic treatment process. This dynamic nature of the stimulus, when presented by videotape in full color reaches well beyond the limitations of traditional projective techniques”.

The somatic inkblot series is a structure projective diagnostic instrument and an adjunct psychotherapy. It is structured by its sequential presentation of research and field-tested selection of inkblots each with typical or atypical responses potential. It is projective because it is based on spontaneous, individualized responses to semi-ambiguous inkblot figures, which elicit intera-psychic associations specific to the personality of the person presented with them. It is a diagnostic instrument by the interaction of structure and stimuli which evokes symbolism and meaning unique to the individual that can be differentiated from typical and atypical peer norms and currant diagnostic criteria (latest DSM manual). It is an adjunct to therapy because responses can be further explored to create a more effective treatment plan and discussing each inkblot during or after formal presentation provides an opportunity to further probe deeper, more defended material. During the procedure the patient may abreact emotional conflict elicited by the image, therapeutic in it self (Cassell, 1980, 1990, 1991).

Usually the purpose of psychological test is to assess the personality and to arrive at a psychiatric diagnosis. The purpose of SIS is much more. It helps to understand the psychopathology of the patient and to understand the severity of the problems as experienced and verbalized symbolically by the patient. In the interpretation of the

problems, the somatic inkblot series uses languages of dreams, visual imagery and symbolic thought, which are most basic forms of thinking and expression. It helps the therapist more sensitively 'here' a suffering individual's cry for help, the 'inner cry' that is hidden not only from others but often from one's own conscious awareness as well. This is the magic, the unique distinguishing feature of projective testing so elegantly demonstrated by the genius of Hermann Rorschach. His inkblot test had been used worldwide by an entire generation of clinicians and researchers. Since projective tests are not based on verbal communication they more effectively penetrate the outer shell of defenses and surface behavior. Because they do not require reading questions or manual performance such as on personality and intelligence testing they more directly access mental processes.

**Material and Method:**

Forty eight normal healthy adolescents studding in $10^{th}$ class, in the age range of 15 to 17 years were included in the study. Nearly 25 percent of them were female and remaining 75 percent were male. They were administered Somatic Inkblot Series – video. SIS-Video has 62 images in two series A and B, Projected through video and the subject is asked to see the image and write the response on a response sheet provided to him. The total duration of the test is constant about 60 minutes including instructions and writing the responses.

**Results:**

To achieve the objectives, the protocol were scored for eight scoring categories i.e. length of the protocol (total number of Responses), Human responses, Animal responses, Anatomical responses, Sex responses Movement responses, Most typical responses and Rejection of images. The comparison of adolescents of this study was done with adults of earlier study (Dubey and Cassell, 1991, 1992). The table 1 given ahead indicated that the total number of response was less in adolescents as compared to adults. Percentage of Human responses, Anatomical responses and Rejection of images were higher in adolescents as compared to adults. Percentage of Animal responses, Sex responses, Movement responses and Most typical responses were found to be low in adolescents.

**Table 1**

**Comparison of Score between Adults and Adolescent**

| | Adults (n=100) | | | Adolescents (n=48) | | |
|---|---|---|---|---|---|---|
| | **Mean** | **SD** | **percentage** | **Mean** | **SD** | **Percentage** |
| No of Responses | 74.08 | 12.4 | | 59.31 | 3.02 | |
| Human Responses | 14.66 | 5.46 | 19.79 | 20.44 | 6.26 | 34.46 |
| Animal Responses | 8.65 | 4.69 | 11.68 | 3.79 | 4.01 | 6.39 |
| Anatomical Responses | 9.18 | 4.24 | 12.39 | 13.10 | 8.00 | 22.08 |
| Sex Responses | 4.12 | 2.58 | 5.56 | 1.46 | 2.35 | 2.46 |
| Movement | 9.60 | 5.30 | 12.96 | 0.69 | .96 | 1.16 |
| Most Typical Responses | 13.68 | 1.98 | 18.47 | 7.10 | 2.70 | 11.97 |
| Rejection of image | 0.82 | 2.00 | 1.11 | 2.81 | 3.19 | 4.73 |

Table 2 provided comparison of scores on series A and B in adolescents with a purpose to demonstrate that the length of the test can be reduced to fifty percent if there is paucity of time.

**Table 2**

**Competition of Scores of SIS-Video Series A & B in Adolescents**

| **Scoring Categories** | **Mean numbers of Scores in** | | | |
|---|---|---|---|---|
| | **Series A** | | **Series B** | |
| | Mean | Percentage | Mean | Percentage |
| Number of responses | 29.79 | | 29.52 | |
| Human responses | 9.56 | 32.09 | 10.88 | 36.86 |
| Animal responses | 2.29 | 7.69 | 1.50 | 5.08 |
| Anatomical responses | 7.06 | 23.70 | 6.04 | 20.46 |
| Sex responses | 0.83 | 2.79 | 0.63 | 2.13 |
| Movement Responses | 0.19 | 0.64 | 0.50 | 1.69 |
| Most Typical responses | 3.77 | 12.66 | 3.33 | 11.28 |
| Rejection of images | 1.25 | 4.20 | 1.56 | 5.28 |

(None of the responses between series A & B differed significantly)

Eight scoring categories did not differ significantly between series A & B. The percentage of responses were almost similar, therefore, it can be assumed that the two series may be used as alternate form of the test.

**Discussion:**

In general all test scores tends to differ between adults and adolescents. The difference on personality dimensions is relatively less, but on projective test there is a, marked difference. The reason being the subject has to give a meaning to vague stimuli and this meaning or perception depends upon the experience and developmental maturity of the subject. Their needs are different and the ways of fulfilling the needs are also different. Adolescents generally look up to their family members and peers for fulfillment of their needs whereas adults may find them as their competitors. Because of these reasons, adolescents gave more human responses. They also gave more anatomical responses than adults. What is the reason of this is difficult to establish. It can, however be postulated that the images do depict more anatomical structure and the adolescents perceive more than what the image appears. Children have less sex exposure therefore, sex responses were found very low in adolescents. Movement and Most typical responses are signs of developmental maturity and that is why adults have obtained significantly more scores on these two scoring categories than adolescents. It further suggests that the same norms will not be applicable on adults and adolescents. It has to be age specific.

The difficulty level of images in 2 series A & B was found to be almost equal in earlier study (Dubey and Caseell, 1992). In present study the percentage of responses in different scoring categories did not differ in series A and B. It can thus be summarized that series A and B in children can be considered as a parallel form. Correlation between series A and B on different categories were found to be significantly high in adults also (Dubey and Cassell, 1992). In that article, it was also suggested that series A and B can be used as alternate form and the administration time can be reduced drastically by administering one of the two forms if the clinician has paucity of time. The same conclusion holds true for children as well.

**Conclusion:**

On the basis of the results it can be concluded that the percentage of responses in Human, Anatomy and Rejection of image was significantly higher in adolescents in comparison to adults. The Animal responses, sex responses, Movement responses and Most typical responses were more in adults than adolescents on SIS-Video images. The two series of the test A and B can be used independently without significant change in the pattern of responses.

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SIS J. Proj. Pst. & Ment Health (1994) (1) 32-37

# Reliability and Validity of Somatic Inkblot Series in India

**D. Pershad and B.L. Dubey**

A sample of 268 subjects in four different categories were administered SIS-Video test. The test was found to have satisfactory response consistency over a period of 4 weeks and split half reliability ranged from .61 to .92 for eight scoring categories. The test was found to have construct validity. It could differentiate between normal and psychiatric cases successfully.

Somatic Inkblot Series (SIS) is structured projective diagnostic tool based on inkblot imagery. It consists of 5 independent sets of Inkblots. Any one or more sets can be chosen by the clinician depending upon the time available to him and the explicit purpose of testing.

The test is based on the theory of somatic imagery; body symbolism, body perception and the cry for help (Cassell et al (1994). The administration, scoring and interpretation of the test are easy and more informative compare to other test using inkblot imagery. The purpose of administration is multi- dimensional. It helps in the understanding of psychopathology, inner cry, diagnosis and therapy. The five forms if the tests are descried in brief.

Somatic Inkblot Series-I: It was initially developed in 1960 and consists of 20 inkblot images, printed on white card. The cards are printed in black, red and grey (screened black). Three cards are exclusively red and nine are achromatic. Images provided enough obvious anatomical structure to evoke spontaneous verbalizations but not enough to limit the responses solely to the naming of body parts or colors.

Somatic Inkblot Series-II (SIS-II): After initial success with SIS-I, SIS-II was developed in 1980. It is an extension of SIS-I. It is a paper self-test booklet. It consists of series A and B, each with 31 images (total 62 images). In addition, there is a sample image in the beginning. The stimulus image is printed in a rectangle measuring about 5x6 cm., each with space provided below for writing the response. The entire images are printed on 8-page booklet. The first seven pages are consisting of image with instructions for supervised self-administration. Place for brief health history and personal data is also provided on last page. Unlike to SIS-I, it consists of image printed in blue on white background.

Somatic Inkblot Series-video tape (1984): It is color and sound VHS videotape for supervised administration. It consists of all 62 images of SIS-II with a difference that it

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uses color, movement and sound. The videotape begins with pictures of flowerers and soft background music followed by stimulus images one by one. The subject is required to write responses on a responses record sheet after seeing the images. It takes about 60 minutes to complete the test. Scoring and interpretation are similar to that of SIS-I or SIS-II.

SIS Living Images (1985): It is VHS videotape with colored images and sound in the background. Like SIS video-II, this tape is also meant for supervised administration. The test consists of 40 image and these are altogether different from those in the earlier test series. This test has primarily been tried on female subjects and has been successful to bring out their inner cry especially those who have suffered from sexual traumatic experiences. The test has all the characteristics of earlier test except that it is meant for female subjects.

SIS-I Video: It was developed in 1992. All the 20 cards of SIS-I are transferred on videotape. The videotape begins with pictures of flowers and softy background music followed by stimuli images one by one. It is designed for supervised self/group administration. It takes about 30 minutes in its administration. The subject is required to write responses on a record sheet. The subject is also asked to select 3 most threatening images and 3 most liked images at the end of the test.

Somatic Inkblot Tests can be administered in a verity of ways. SIS-II and SIS-Video forms are designed for self-administration after supervised instructions. After acquiring considerable experience, some clinician used the booklet with the patient or to unobtrusively observe the self administration to observe reaction time and significant verbal and non-verbal responses for each inkblot (delays, over reaction content shock) Other prefer to allow the patient to take the test booklet/video home and write in responses whenever they have the time to relax and review the images (intermittent administration) or if they prefer, at one time (continuous administration). Some clinicians have found it useful to have the patient complete the test before going to bed to stimulate the unconscious to process repressed materials in dreams during sleep and conduct the interview the next day morning to ascertain with SIS images, if any become enmeshed in the individual's dream contents either directly or in latent symbolic from. This, however, is done only for clinical purpose. Self-administration saves the time, reduces test anxiety, and minimizes potentially contaminating and/or inhibiting effects of the examiners presence.

Clinical tests are generally not administered in-group situation but SIS-II and SIS-Video have the advantage of group administration. The time required for SIS-I is about 20-30 minutes and for SIS-II and SIS-Video nearly one hour. SIS-II however, takes little

less time than SIS-Video because images on SIS-Video stay on TV screen for a fixed time. On SIS-II subject can move faster.

The reliability and validity of different forms of the test had been reported (Cassell, 1980 1980a: Dubey et al, 1992) to be quite satisfactory in terms of clinical evaluation, interpretation and therapeutic efficacy. The psychometric qualities had never been strived in a planned manner. The present study is an attempt to report its reliability and validity.

**Material and Method:**

Two hindered and sixty-eight persons (100 health adults, 48 school adolescents, 41 schizophrenics and 39 neurotics from India and 40 adult neurotics from USA) formed the sample of the study. It was a consecutive purposive sampling. All the subjects were administered SIS-Video version in a supervised individual administration. This consists of 62 images in video. Each response sheet was scored for eight objective categories given below:

1. Total number of Responses
2. Human Responses
3. Animal Responses
4. Anatomical Responses
5. Sex Responses
6. Movement Responses
7. Most-Typical Responses
8. Rejection of Images

**Result:**

**Reliability:**

Its reliability was tested in terms of responses consistency per images over a period of 4 week on 30 normal subjects

**Table 1**

**Consistency of Responses of Repeat Administration of SIS-Video (n=30)**

| Consistency of Responses in Percentage | Total Image | Image Number |
|---|---|---|
| 80-100 | 17 | Series A-7, 12, 13,20,30,31. |
| | | Series B- 4, 5, 8,9,15,16, 21, 22,25, 29,31. |
| 60-79 | 21 | Series A- 4,6,9,10,16,17,21,23,25,27,28 |
| | | Series B- 6, 7,12,18,23,24,26,27,28,30. |
| 40-59 | 14 | Series A-1, 5, 8, 11,14,15,18,19,24 |
| | | Series B- 2, 11, 13,14,20 |
| Less than 40 | 10 | Series A- 2,3, 22,26,29 |
| | | Series B- 1,3,10,17,19 |

Thirty- eight (38) images were found to have satisfactory responses consistency. The remaining 24 images had somewhat lower responses consistency. Looking at the manual of the test, it was noted that 10 images were unstructured and had more projective value, therefore, the responses are likely to differ on these images on repeat administration irrespective of time interval. The correlations computed for content categories for Human, Animal, Anatomic and Most Typical responses ranged between. 71 to 92

The split-half reliability was also determined for 8 categories of scoring as mentioned earlier. Splitting of the test was done on its natural division of series A & B. The results are given in Table 2.

**Table 2**

| SIS Variables | Correlation (r) |
|---|---|
| Total Responses | .39 |
| Human Responses | .61 |
| Animal Responses | .71 |
| Sex Responses | .67 |
| Anatomical Responses | .60 |
| Movement Responses | .66 |
| Most Typical Responses | .51 |
| Rejection of Images | .76 |

**Validity:**

The construct validity of SIS-Video was determined. Various hypotheses tested for the purpose are given below:

1 Number of Atypical responses should be greater in schizophrenic patients as compared to neurotics and normal subjects.

2. The profile of responses in 4 categories of subjects (Healthy adults, School adolescents, Schizophrenics and Neurotics) should differ significantly. Normal should be best performer amongst the group.

3. Adult and adolescents should differ in their responses.

Al the three hypothesis were retained. The number of atypical responses was significantly higher in schizophrenics followed by neurotics. 93 percent of the normal subjects had 2 or less atypical responses, wheals, only 7 percent of schizophrenics fallen in this category.

All the 4 groups differed significantly on total number of Responses Movement, Human, Animal, Anatomical responses and Rejection of images. Normal was found more productive. The neurotics and schizophrenics, however, differed marginally. American neurotics had distinct profile.

Adolescents were found to give significantly more Human and Anatomical responses and rejected more images. On other variables like Animal, Sex Movement and Most-Typical responses, the adolescents gave significantly low as compared to healthy adults. The mean number of responses by adults was 74 whereas in adolescents it was above 59.

**Conclusion:**

Looking at the results of Reliability and validity, it is concluded that SIS-Video is a reliable and valid instrument. It had internal consistency over a period of time. The test is valid to differentiate normal from the cases of psychiatric illness. The use of video technology has encouraged the subjects to sustain his interest in the video testing.

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SIS J. Proj. Pst. & Ment Health (1994) (1) 38-47

# Rorschach and the Creative Artists

**S. Ramachandra**

A group of 30 known creative artists was compared with group of normal individuals who were not known for creativity, along with a neurotic group of an equal number. Their test performance on Rorschach was analyzed according to klopfer's method. They were found to show an average number of responses, quick reaction time, and healthy emotional relationship with other with good ago strength. They had the ability to view their problems objectively. The quality of responses suggested a keen perception and disposition to do things differently.

Creativity is a concept that is making in-roads in many areas like folk arts, science, management, education, administration, etc. However, the concept itself is so elusive that no single definition seems adequate. Morgan (1953) published 25 definitions of creativity, and subsequently many more have been added. MacKinnon (1962) thought of creativity as a novel or at the very least statistically infrequent idea to accomplish a goal. For Rollo May (1959) and baron (1965) it was simply the ability to bring something new into extended. Mednick (1962) noted that associational responses of a unique nature to be the core of creativity. Torrance (1969) indicated that ability to be sensitive to problems, missing elements and gaps of knowledge along with a search for new solutions. Koestler (1964) proposed that creativity emerged as a result of the functional clash in his dissociative theory. In the Indian context it has been viewed as (Nava Navonmesha Shalini Pratibha") that which blossoms in an individual with newer and newer forms (Sushil Kumar, 1960).

**Rorschach Test and Creativity:**

Klopfer (1954) described creativity in terms of 'personality processes rather than output', a capacity to integrate archaic impulses, or drive within the organization of self and conscious values and to Integrate inner experience with external reality and it demands'. Since a full developed creativity.. .represents an ideal to realized, evaluation concerns itself with quests of more of less closely approximating the ideal rather than with presence or absence of creativity. Consideration of location, determents, and content would help to understand such a process. Specifically, the following were given more importance to evaluate the creative process: integrated W responses, good quality and number of original responses, Fc and CF responses indicating an orientation towards the emotional environment, shading responses and a good number of original responses. These categories of responses both independently and in

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combination reflected the creative process an individual. Discussion of results has been limited to important parameters that were proposed by Klopfer.

**Methodology:**

**Sample:**

The Sample consisted of 30 creative artists in the fields of music, literature, dance, paining and sculpture. These artists were identified on the basis of the criterion of creativity in its manifest form – such as the awards of a high order having been conferred on them for their original contribution in their choosen field. They were all literates. Twenty-seven of them were men and three women. Their age ranged from 26-64 years. They were compared for their performance on an equal number of individually who were not known for their creativity and also with and equal number of neurotics.

Tools Wallach and Kogan test of creativity (Paramesh, 1972) and Rorschach Inkblot test (Klopfer, 1954) were administered individually.

**Results:**

**Wallach and Kogam Tests:**

The creative 'artist's performance was for superior on Wallace and Cogan test of creativity. The creative artist differed significantly (<. 012) from both normal and neurotics.

The results of the performance by the three groups of subjects on Rorschach Test was compared and examined under the following aspects: (I) total number of responses; number of responses to cards VII, IX, and X; (2) total time, average reaction time, reaction time to achromatic and chromatic cards; (3) location; (4) determinates; (5) peculiarity or originality of responses, and (6) content categories.

Total Number of Responses and Number of Responses to Cards VII. IX. and X:

The number of responses given by the three different group varied. More number of responses were given by the creative group, followed by the neurotic group and the normal group. Table 1 indicated that there were significant differences among the group. However, no difference was found on their responses to cards VIII, IX and X. Responses on cards VIII, IX, and X were almost equal in all the 3 groups.

**Total Time and Reaction Time:**

The results in Table 1 indicated that the three groups differed with regards to the total time significantly. The neurotic took longer time. The time taken by the normal group was less. The creative group had taken relatively less time than the neurotic group, and more time than the normal group.

Average responses time taken by the creative group was short and it was longest for the neurotic group. The normal had a moderate average reaction time in relation to the creative and neurotic groups.

Average reaction time to achromatic and chromatic cards was not significant for the three groups.

**Table 1**
**Total No. of Responses-No.of Responses to Cards VIII, IX and X, Total Time and Reaction time**

| | Groups | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | I | | II | | III | | | | |
| | Creative | | Neurotic | | Normal | | | D.F 2/87 | |
| | M | S.E. | M | S.E. | M | S.E. | | Value | Sig |
| Total R | 25.80 | 2.35 | 19.36 | .70 | 15.76 | .62 | X2 | 11.82 | p<.01 |
| R.T. | 24.56 | 1.83 | 40.16 | 1.75 | 35.30 | 2.30 | F | 16.23 | P<.01 |
| RT. Ach | 11.97 | .57 | 10.57 | .61 | 12.16 | .63 | F | 2.04 | N.S |
| RT. Chro | 11.91 | .68 | 10.90 | .53 | 13.05 | .70 | F | 2.77 | N.S |
| R on VIII, IX & X in % | 34.72 | .75 | 33.80 | .57 | 35.07 | .70 | F | .92 | N.S |

N.B. Reaction time in seconds. SE = Standard Error M= Mean

**Location:**

Considering the area of the blots chosen mean scores for the creative group was higher on W than the neurotic and normal groups, though the difference was not statistically significant. However, a trend was shown by the creative to view the whole blot more than the control groups as shown in Table 2.

Major details (D) were given more often by the normal group than the creative or neurotic group. The difference between the normal group and the creative and neurotic groups was significant.

Results were significant with regard to small detail (d). Neurotic subjects had the highest scores, and it was least for normal. The creative were in between. Scores for Dd' category also were the highest for the neurotic group being significant at 0.05 percent when compared with normal group. Significant difference was not noticed

between the creative and neurotic group, as well as the creative and normal groups.

Space (S) responses were found to differentiate the group significantly at 0.01 percent. These responses were present only in the creative group to large extent. Between the neurotic and normal group there was not much difference.

**Table 2**

**Location of Responses**

| | Groups | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | I | | II | | III | | | | |
| | Creative | | Neurotic | | Normal | | | D.F 2/87 | |
| | M | S.E. | M | S.E. | M | S.E. | | Value | Sig |
| W | 47.47 | 2.57 | 41.31 | 1.82 | 42.13 | 1.42 | X2 | 5.06 | N.S |
| D | 36.25 | 2.25 | 40.05 | 1.85 | 43.29 | 1.46 | F | 3.48 | P<.05 |
| D | 11.26 | 1.68 | 17.01 | 1.67 | 9.47 | 1.69 | F | 5.57 | P<.01 |
| Dd | 1.27 | 0.17 | 4.25 | 1.44 | 0.44 | 0.44 | Z | 2.27 | P<.05 |
| S | 7.98 | 1.48 | 2.86 | 1.10 | 2.52 | 1.05 | F | 6.16 | P<.01 |

NB : Figures in Percentage M = Mean, SE – Standard Error of Mean

**Determinants:**

Form of F responses, as indicated in Table 3 were found to differentiate the groups significantly. The difference between the creative and neurotic groups was more and the neurotics' score on this category was the highest. Scoring for the normal group was relatively less when compared with that of the neurotics.

Responses relating to shading/ texture / diffusion were also compared. FK responses (Shading as three dimensional expanse) were found to differentiate the group significantly. The creative group had the highest mean, followed by the normal group, and the neurotics' mean was the least.

The results did not show significant differences among the group regarding the texture responses (cF, Fc)

**Table 3**
**Distribution of Form, Shading and Texture Responses**

| | Groups | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | I | | II | | III | | | | |
| | Creative | | Neurotic | | Normal | | | D.F 2/87 | |
| | M | S.E. | M | S.E. | M | S.E. | | Value | Sig |
| k | 0.00 | .00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| K | 3.63 | 1.20 | 4.27 | 1.36 | 1.92 | 0.91 | F | 1.43 | N.S |
| FK | 9.98 | 1.69 | 2.84 | 1.08 | 5.05 | 1.33 | F | 6.88 | P<.01 |
| F | 41.66 | 1.77 | 50.20 | 1.65 | 46.39 | 1.58 | F | 6.51 | P<.01 |
| Fc | 11.34 | 1.30 | 7.68 | 1.54 | 7.27 | 1.36 | F | 2.52 | N.S |
| cF | 0.00 | 0.00 | 1.49 | .83 | 0.00 | .00 | Z | 1.77 | N.S |

NB: Figures in percentage. M= Mean, S.E. = Standard Error

**Movement Responses:**

Table 4 showed that significant differences existed with regard to Human Movement responses in the groups. The creative group had the highest mean score. Mean scores for the neurotic and normal groups were almost identical. Appreciable differences were not indicated regarding FM and m (Animal and Inanimate movement) responses among the three groups. The mean scores for imanimate movement was the least for the neurotic group.

**Table 4**
**Distribution of Movement Responses**

| | Groups | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | I | | II | | III | | | | |
| | Creative | | Neurotic | | Normal | | | D.F 2/87 | |
| | M | S.E. | M | S.E. | M | S.E. | | Value | Sig |
| M | 22.88 | 1.88 | 17.07 | 1.24 | 18.98 | 1.49 | F | 3.59 | P<.05 |
| FM | 22.44 | 1.57 | 20.72 | 1.17 | 24.03 | 1.51 | F | 1.32 | N.S |
| m | 10.12 | 1.43 | 6.50 | 1.54 | 9.58 | 1.61 | F | 1.61 | N.S |

NB Figures in percentage M= Men, S.E. = Standard Error

**Chromatic and Achromatic Responses:**

Results as presented in Table 5 indicated that there were no significant difference among the groups regarding chromatic responses. However, FC and CF scores were slightly higher indicating the use of color to organize the percept. It may further suggest their maturity.

On achromatic surface color i.e., C' the neurotic and normal group differed significantly from the creative group. Mean scores for the creative group on this category was much less.

**Table 5**
**Distribution of Chromatic, Achromatic Responses**

| | Groups | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | I | | II | | III | | | | |
| | Creative | | Neurotic | | Normal | | | D.F 2/87 | |
| | M | S.E. | M | S.E. | M | S.E. | | Value | Sig |
| C' | 0.40 | .40 | 5.74 | .33 | 4.07 | .26 | X2 | 11.55 | P< .01 |
| FC | 5.76 | 1.22 | 4.83 | 1.44 | 5.52 | 1.50 | F | 0.11 | N.S. |
| CF | 3.11 | 1.08 | 1.71 | .81 | 2.42 | 1.00 | F | 0.51 | N.S |
| c | 3.17 | 1.09 | 3.36 | 1.04 | 1.02 | .72 | F | 1.80 | N.S |

NB : Figures in percentage. M= Mean S.E. = Standard Error

**Popular and Original Responses:**

Table-6 indicated that there was no difference regarding popular responses among the groups. However, the creative gave more of original responses than other two groups. There was no difference between the neurotic and normal groups.

**Table 6**
**Distributions of Popular and Original Responses in Percentage**

| | Groups | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | I | | II | | III | | | | |
| | Creative | | Neurotic | | Normal | | | D.F 2/87 | |
| | M | S.E. | M | S.E. | M | S.E. | | Value | Sig |
| O | 13.32 | 1.87 | 7.60 | 1.60 | 7.96 | 1.62 | F | 3.52 | P<.05 |
| P | 37.52 | 1.60 | 31.20 | 1.42 | 30.55 | 1.33 | F | 1.32 | N.S |

NB: Figures in percentage

**Content:**

Out of the various content categories, significant difference was noticed only in three categories. The categories perceived significantly more of anatomical (X2 = 7.2, P< 0,5) plant (X2 = 7.0, p<.05), and abstract (Z= 2.33, P<.05) responses when compared with the control groups.

**Discussion:**

**(I) Reaction Time:**

As represented in Table 1 the creative group has given relatively more responses than the control groups which is within the average range of productivity. The group has taken an average reaction time. There was no significant difference in reaction time between the chromatic achromatic cards. Percentage of responses to cards VIII, IX, and X for all the groups was more than 30% which suggested a moderate degree of emotional responsiveness.

**(ii) Location:**

A consideration of the location of responses as presented in Table 2 showed that the creative group preferred a lesser number of D responses, and showed a tendency for more W responses. This suggests a capacity to view things with attention to details and also to view them in the larger context. Greater number of W responses also suggests organizational ability. The neurotic group preferred Dd responses, which indicated greater concern with minute details to the extent of being meticulous, and obsessional decides having a capacity to view things globally. Space responses were mostly observed in creative, which meant the presence of oppositional tendencies at the intellectual level. Such space responses indicated tendency to do things differently, to assert oneself competitively, and an ability to use the location ‘ constructively. It was also considered as a sign of ego strength.

**(iii) Determinants:**

**Movement Responses:**

Human Movement responses were considered by Klopfer as an essential but not a sufficient condition in the creative process. However, M denoted signs of high intellectual capacity enabling a higher level of differentiation and integration both in the perceptual and cognitive functions. Table - 4 presented the creative individuals as showing a greater number of M responses acknowledging a rich imaginative capacity as against the control groups. According to Klopfer, M represented and equivalent to role playuing in the first imaginative stage’ He found that Animal movement and inanimate

movement too were important indices of creativity but not as superior as human movement responses. These responses i.e. FM and m responses were found in the control group also in similar proportion. Schachtel (1942) noted that M responses did not indicate capacity for creative production, but represented capacity for creative experience.

**Vista, Diffusion, and Texture Responses:**

FK responses refer to three-dimensional perception on a two dimensional plane. These responses represented efforts made by a person to handle affectional needs through introspection. It denoted an ability to view the problems objectively. It also amounted to having insight into one's problems with stability. The creative group gave more of FK responses, suggested that they were more aware of their problems and viewed the same dispassionately. The neurotic group indicated a few FK responses and at the same time had more K responses suggested that the neurotic had more affect ional anxiety over which they did not have control. The normal group indicated lower anxiety with better control than the neurotics. More Fc responses were found in the creative group bur not at a significant level when compared with the control group. Such responses meant 'an awareness of and acceptance of affectional needs' with a desire to be approved, and usually found in persons with a sense of basic security. A lower score on this category in the control group indicated a trend towards insecurity feelings. Creative showed less of achromatic color responses further suggest that they are able to face difficult situations.

**Color Responses:**

FC responses indicate a control over emotional impact without loss of responsiveness,' in the form of being pleasant, and getting along smoothly with others. Greater number of FC responses suggests more dependence on other people in a socialized manner. FC has also been considered a good sign of adjustment. Low number of CF responses in creative subjects further suggested his adjustment in different situation.

Table 5 presented both creative and control groups showing almost equal proportions of FC responses, thereby both the groups reacting to emotional situations in a like manner. The higher number of CF responses in the creative group as against the control group would make the creative emotionally more sensitive. Added to it, the mean scores for C (C symbolism) are higher for the creative group, which in turn is indicative of an intellectual and theoretical favor to control' intense emotional impact. In case of neurotics it was more of color description rather than color symbolism suggesting a difficulty in the control of emotions, though a false but calm exterior was put on by them.

**(IV) Popular and Original Responses:**

Popular responses were accounted to indicate that the person tended to view the world as other did. Table 6 represented that the creative group did not differ from the control group in viewing the world in a conventional way. Original responses were noted in superior persons, which reflected a keen perception. As represented in Table 6 the creative group has given more of such responses. Klopfer opined that artists tended to give more original responses.

**(V) Content:**

The results indicated that more often seen categories belonged to A and Ad, H and Hd and objects. The creative group did not show significant differences in the variety of contents except on three categories viz., 'anatomy', 'plant' and 'abstraction. This might indicate that creative too depended on the similar source material to give shape to their perceptions. An increase in the number of anatomical responses in the present study could be explained on the basis of cognitive repression of somatic imagery imagery, a viewpoint that has been put forth by Cassell(1980). He also developed a method called "Body Interior Index"of "cognitive repression of somatic imagery', a viewpoint that has been put forty by Cassell (1980). He also developed a method called 'body interior index" focusing on the anatomical responses to Rorschach. Further light could have been thrown by using Somatic Inkblot Series.

The higher number of original responses by the creative group to the usual content material that was given to other groups as well was mainly attributable to their artistic ingenuity.

Cohen (1961) found greater number of primary process responses in art students based on ratings by their professors as highly creative. There were more primary processes responses in Rorschach protocols of successful sculptors, painters, and writers. Hersch (1962) found artists to be having greeter access to both mature and primitive cognitiveprocesses when compared with normal. Raychaudhuri (1971) analysed Rorschach protocols of 140 subjects, and M productivity was associated with creativity.

Paramesh (1972) projected slides of Rorschach plates to small groups of students. Scoring was done on the lines developed by Fisher and Cleveland (1958) in terms of barrier and penetration of boundary characteristics. Barrier scores were found to be significantly related to creativity scores.

An examination of the studies reveals that almost all the studies limit to one or two categories viz., either in terms of M responses only, or in terms of primary process responses. Such a limitation probable yields very little information about the creative process. In terms of Klopfer, scoring categories derive valuable meaning in relation to

and in the absence or presence of other determinants. Therefore, an evaluation based on a combination of categories would be more meaningful. However, findings of Chachtel, Cohen, Hirsch, and Raychaudhuri conform with the present findings, though the range of studies reported appear narrow.

**Conclusion:**

In summary, the performance of creative subjects on Rorschach test was evidenced by an average number of responses. Reaction time responses was quick. They were capble of having lively emotional relationship with others. The responses also suggested an active and healthy interplay of conscious and unconscious forces with good ego strength. They had the ability to view their problems objectively and incisively. The quality of responses suggested a keen perception and disposition to do things differently.

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# A Study of Somatic Inkblot Series-I in Coronary Cases

**S.P. Rathee, D.S. Goel, M.L. Chawla, D. Saldanha and B.L. Dubey**

75 coronary cases and 75normal subject, all male mostly matriculate, in the age range of 30-55 years, were administered SIS – I Test. Results suggested that the coronary cases tend to give low number of responses, unhealthy somatic imagery,low typical responses with rejection of more images than normal subjects. SIS-I can help the clinician as a powerful diagnostic and therapeutic tool.

Coronary Heart Disease (CHD) is a major cause of morbidity and mortality in the present time. While a number of risk factors have been identified, preventive strategies have not been very effective as several of these factors are difficult to modify. Smoking is the most important known modifiable risk factor for heart diseases and 30% of all coronary deaths are related to smoking. It also constitutes a significant interface between physiological and psychological risk factors (Eysenck,1973). The relationship between personality / psychological stress and CHD is well recognized (Hayness et al, 1980; Zyzanski et al, 1976; Anggard et al, 1986), though there are a few discordant notes (Shekelle, 1978).

The coronary cases have been described as to be compulsive, having a tendency to work klong hours without taking any vacation. They crave for authority; dislike of sharing responsibilities-articulate few neurotic traits a tendency to depression which is rarely admitted to a tendency to minimize symptoms-self neglect (Flounder and Dumber, 1943). Later, Friedman and Rosenman developed the concept of coronary prone behavior pattern, which they termed type “A” and behavior defined as a characteristic action emotional complex found in people who are constantly struggling reach poorly defined goal in the shorts time. In this opinion the most critical aspects of Type A behavior pattern are excesses of competitiveness pace and aggression. Coronary prone type ‘A’ behavior pattern is perhaps the most highly researched area in psycho somatic medicines (Corse et al, 1982; Scherwitz et al, 1978; Friedman, 1977;Verghese et al, 1985; Ghulam et al, 1990 and Singh and Thapa, 1989). Several studies have attempted, aggression (Seth, 1979) and stressful life events (Singh and Misra, 1987). A few workers have discussed the feasibility of altering type ‘A’ behavior pattern through behavioral counseling and use of relaxation procedure along with change in life style (Singh and Thapa, 1989.)

The findings of an elaborate and well-designed prospective study involving longitudinal follow-up of 1457 subjects suggest a noble role for phobic anxiety in relation to

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CHD (Haines, et al 1982). Summarization is, however, seen much more frequently than free-floating anxiety or depression parse in our culture. This empirical clinical observation is supported by a mass of published material (Teja and Aggarwal, 1971) Srinivasan et al,1986; and Chadda and Bhatia, 1990). Similar trends have been reported from other developing countries (German, 1972 sand Krimayer, 1984).

So far much has been known about the personality, behavior pattern, risk factors, modifiable and un modifiable factors associated to Coronary cases. Anxiety, depression, compulsive and other characteristic of behavior have been reported on objective and descriptive mode of assessment. But hardly a few studies have been reported about their reaction pattern on projective/ Inkblot techniques. The existing inkblot techniques such as Rorschach and Human Figure Drawing Test have been widely used and found useful in assessing somatic disturbance. However, a review of clinical and research literature and working with the Rorschach inkblot anatomical scores, it suggests that inkblots with imagery and under lying body psychodynamics. The Somatic Inkblot Series (SIS) is a new addition into projective technique, which fills all gaps left by earlier inkblots tests.

Somatic Inkblot theory proposes that everyone has a unique and highly personalized system of attitudes, conscious and unconscious that are projected onto the body as a spatial entity. These interact with the feed back sources and internal sensation. Relatively desecrate mental representation exists for particular somatic regions which consistently compete for full registration in consciousness. Thus somatic awareness transiently increased instates of hunger, physical exertion, emotional arousal and sexual excitement. Subsequently the mental representation in the body fades into the background of consciousness (Cassell, 1980).

Alteration in body perception also occurs in physical illness. The cognitive appraisal of the altered body state is influenced by factors such as age, sex socioeconomic status, past medical and family history of disease experiences. These may be a strong motive conscious or unconsciously to adopt the sick role such as in order to obtain disability compensate. There may be stress induced wish to regress to an infantile dependent position and be taken care or by parental figure. Hence there felt a strong need to use such a projective aid, which can help the therapist to hear the underlying physical or mental process going on as inner cry. Such inner cry has been experienced by number of physicians, doctors and researchers in different fields in various ways (Cassell, 1964, 1965, 1969, 1990).

**Objective:**

The present study aims to compare the responses of Coronary Heart Disease and Normal subjects on Somatic Inkblot Series-I.

**Material and Method:**

75 Coronary cases (CHD), in the age range of 30-55 Yrs, all male mostly matriculate formed the sample. All of them were fresh and symptomatic cases, taking active treatment. 75 normal subjects, free from any symptoms, matched with the age, education and socio-cultural variables of the coronary group were also taken for comparison.

Al the 75 CHD cases were initially seen by the Cardiologist and prepared for psychological assessment. Later on, they were administered SIS-I test individually after explaining its purpose and sealing their consent to taken the test.

**About the test:**

Somatic Inkblot Series-I (SIS-I) consists of 20 inkblot images printed on white card measuring 16.5 x 20.5 cm. The cards are printed in black, red and gray (screened black). Eight of them are black and three are exclusively red and nine are achromatic. Image provides enough obvious anatomical structure to evoke spontaneous verbalizations. In this way obvious anatomical structure provides a feeling of security to make deeper, more symbolic, repressed material more accessible to the person being tested. The test has been found reliable and valid (Dubey et al,1992).

The SIS provides clinicians with a new diagnostic aid for body percept assessment. It can be used to assess the depth and significance of somatic symptoms, conversion reactions, somatic delusions, and sexual dysfunctions. Psychoanalysis of responses can help in understanding somatic responses and castration anxiety (Cassell, 1980a). Responses depicting themes of body assaults may further clarify the extent of aggressive impulses (Cassell, 1977).

**Procedure of SIS-I:**

All 20 cards are presented before the subject and he is asked to select 3 images, which he finds most threatening. The details about these images are asked for any association with his personal past life. Such enquiry helps in establishing the stress and repressed desire of the subject, analysis of which may help in understanding the psychopathology of the case. After this the subject is asked to select 3 images, which he likes the most an enquiry is conducted to find out the reasons. After conducting the detailed enquiry about the most threatening and most liked images remaining cards are presented to the subject to find out what he sees on these cards. This type of presentation is non-conventional. Usually cards of projective tests are presented serially and the subject had no assess to see all the cards together. On SIS-I however, all cards are given to the subject asked to choose the three cards he liked the most. Thereafter, the remaining cards are presented serially one by one and responses are taken. The instruction for the administration of the remaining cards should included the following information:

“I am going to hand you some cards, one at a time. You can turn them any way you like if it helps you to answer. Different people see different things on these cards. There are no right or wrong answers. This is not a timed test. Take as long yu wish to answer. Reaction time is recorded. If a subject says nothing but seems anxious or disturbed about a particular image, note this later the assessment. Procedure in detail is given in the book “Body Symbolism” (Cassell, 1980).

**Enquiry:**

“The clinician goes through the protocol quickly to ascertain whether all the columns of the record sheet have been completed. In cases of any column left blank should be completed.

While conducting the enquiry, the clinician should find out the images which usually evoke anatomical responses but denied here. He should also find out the images where pathological responses in form or verbalization is given by the subject These images form the basis for conducting the enquiry. The usual technique of conducting the enquiry is to ask certain questions about the pathological/ atypical responses. In case of denial (rejection/ inability to perceive anatomical structure of image where it depicts so) the subject is asked “Do you see anything else in this image?’ or Does it remind you of anything else vaguely or remotely?” Wherever, a pathological or deviant responses is given the subject should be asked questions to evaluate positive or negative cathexis and libidinal or erotic foci on specific body imagery. For this purpose specific question asked might be like ‘ Why did you saw so?” “How does it remind you so?” Has it got any relation with your personal life?” or “Have you had any similar experience in your real life or dream? (Cassell, 1990)

All the questions are not required to be asked ritually but the clinician should ensure that the sufficient material has been elicited for abnormal / pathological percept. A few more probing questions can be asked to ensure the coherent psychopathology.

**Results and Discussion:**

The obtained response pattern of Coronary Heart Disease cases and normal subjects are shone in Table 1. Responses given by normal subjects on various cards are much similar to that of American subjects. Comparatively Indian normal subjects have perceived less heart on cards 5,6,7,8, and 13 though images on these cards depict more of heart responses. Heart patients have seen more of heart responses than normal subjects on these cards. This might be because of cardiac awareness in cardiac cases. Response pattern as shown in Table 1 may serve as SIS-I profile of normal cardiac cases in India.

**Table 1**

**Response Pattern of Coronary Heart Disease and Normal Subjects on SIS-I with Comparison to Typical responses**

| Card No. | Responses | CHD Cases | Normal Subjects | Typical responses in American Subject |
|---|---|---|---|---|
| 1. | Animal Bird | 27.6 | 50.2 | Animal of human face |
| | Human Fig | 12.3 | 1.7 | head and birds |
| | Two birds | 36.6 | 28.3 | |
| | Rejection | 5.0 | 0 | |
| 2. | Human Figure | 18.9 | 17.4 | Person |
| | Flying birds | 20.4 | 26.4 | Clown |
| | Heart | 2.2 | 15.7 | mouth |
| | Mouth/Lips | 18.1 | 6.1 | Heart |
| | Bird/Crow | 16.6 | 10.6 | |
| | Rejection | 7.0 | 2.0 | |
| 3. | Human Figure | 50 | 55.2 | Two human being |
| | Fruits | 8 | 13.1 | |
| | Rejection | 12.0 | 1.0 | |
| 4. | Human Figure | 50.00 | 55.2 | Two human being |
| | Apple/Fruits | 40.3 | 33.9 | |
| | Rejection | 33.0 | 0 | |
| 5. | Animal/Bird | 28.8 | 48.8 | Heart |
| | Man | 11.2 | 11.0 | |
| | Children | 34.4 | 21.2 | |
| | Heart | 15.2 | 5.5 | |
| | Rejection | 1.0 | 3.0 | |
| 6. | Two birds | 33.6 | 40.0 | Heart/Lungs |
| | Lungs/Heart | 25.8 | 19.9 | animals/birds |
| | Rejection | 8.0 | 1.0 | |

| Card No. | Responses | CHD Cases | Normal Subjects | Typical responses in American Subject |
|---|---|---|---|---|
| 7. | Heart | 11.7 | 18.0 | Heart |
| | Animal | 30.5 | 36.6 | famale genitalia |
| | Female sex organ | 17.6 | 9.8 | |
| | Rejection | 17 | 3 | |
| 8. | Ribcage | 36.4 | 37.0 | Ribcage |
| | Heart | 32.5 | 31.8 | Heart, Lungs |
| | Rejection | 5 | 0 | |
| 9. | Kidney/Lung | 85.2 | 80.8 | Lungs/Kidney |
| | Rejection | 5 | 0 | |
| 10 | Digestive System | 45 | 25.2 | Mouth, Lips, Stomach |
| | Rejection | 25 | 4 | |
| 11. | Intestine/ Anatomical | 68.9 | 79.9 | Intestines |
| | Rejection | 23 | 1 | |
| 12. | Human object | 31.8 | 41.8 | Uterus and female |
| | Female sex organ | 12.1 | 19.7 | genital |
| | Anatomical | 33.7 | 17.4 | |
| | Rejection | 25 | 6 | |
| 13. | Female sex organ | 38.1 | 23.8 | Female genitalia |
| | Heart | 16.3 | 10.4 | Heart |
| | Fruit | 29.0 | 36.1 | |
| | Rejection | 25 | 7 | |
| 14. | Female genitalia | 62.1 | 54.2 | Female genitalia |
| | Rejection | 13 | 6 | |
| 15. | Spinal Cord | 75.3 | 73.6 | Spinal Column |
| | Rejection | 3 | 1 | |

| Card No. | Responses | CHD Cases | Normal Subjects | Typical responses in American Subject |
|---|---|---|---|---|
| 16. | Animal's Head | 65.0 | 62.0 | Eyes,Nose,Tongue |
| | Rejection | 19 | 2 | |
| 17. | Vertebra | 39.6 | 43.1 | Spinal Column. |
| | Male Sex organ | 15.5 | 5.2 | Ribcage |
| | Chest/Ribs | 8.6 | 8.4 | Phallic imagery |
| | Rejection | 22 | 6 | |
| 18. | Human Face | 24.0 | 30.9 | Face or mouth |
| | Animal Face | 30.0 | 9.5 | |
| | Castle / House | 36.0 | 38.2 | |
| | Rejection | 31 | 7 | |
| 19 | Two birds | 46.6 | 12.6 | Open hands |
| | Human face | 30.0 | 36.7 | |
| | Rejection | 38 | 10 | |
| 20. | Human face | 28.3 | 31.2 | Face, mouth |
| | Animals | 16.6 | 31.2 | |
| | Rejection | 38 | 10 | |
| Total Responses | | 1739 | 2261 | |

Note: 1) Numbers are shown in percentage. 2) Rejection are shown in number of subjects rejected the cards.

Normal subject have given more responses than CHD cases on various images, suggesting that coronary cases are less productive than normal group. Both the groups have perceived similar Human content and Sex content. Animal contents were seen more by normal subjects than the clinical group. Clinical group give comparatively less number of anatomical contents (Mean 6.02) than normal group (Means 7.02) depicting denial/ repression of somatic imagery. Typical responses were more in normal subjects and significantly low in clinical group suggesting that normal group view the world more in generalized way. This may further indicate their thinking in group conformity and socially acceptable perception of things. Low typical responses in CHD cases might be due to their bodily preoccupation and a consequence of their cardiac symptoms.

Rejection of images on various cards is very high in clinical group. Normal subjects have rejected less than one image per protocol goes in expected direction (Dubey and Cassell, 1993.) Personality pattern as shown in Table 2 may further help Clinicians/ researchers as norms on SIS test.

**Table 2**

**Personality Profile of CHD Cases and Normal Subjects on SIS-I**

| SIS | CHD-Cases (n=75) | | | Normal (N=75) | | |
|---|---|---|---|---|---|---|
| **Variable** | **Total** | **M** | **S.D.** | **Total** | **M** | **S.D.** |
| Responses | 1739 | 23.18 | 4.81 | 22.61 | 30.14 | 5.48 |
| Human | 245 | 3.26 | 1.80 | 270 | 3.6 | 1.89 |
| Animal | 308 | 4.10 | 2.02 | 470 | 6.26 | 2.50 |
| Anatomical | 452 | 6.02 | 2.45 | 527 | 7.02 | 2.64 |
| Non Anatomical | 71 | .94 | .96 | 61 | .81 | .9 |
| Sexual | 129 | 1.72 | 1.31 | 144 | 1.92 | 1.38 |
| Others | 486 | 6.48 | 2.54 | 628 | 8.31 | 2.89 |
| Rejection | 319 | 4.25 | 2.06 | 74 | .98 | .98 |
| Typical Responses | 12 | — | — | 17 | — | — |

Comparatively normal subjects gave more Anatomical responses than CHD cases as shown in Table 3. Normal subject had more healthy imagery to such body percept than coronary cases. Unhealthy/imagery was almost four times more in coronary cases than the normal subjects. Cardiac and oral awareness were more in clinical group than the normal group as they could perceive more of lips, mouth, and other body parts along with heart, lungs and kidney though in unhealthy conditions. Low somatic imagery in clinical cases might be indicative of somatic repression (Cassell,1980) though such denial may help cardiac patients to keep better health. Hackett and Weisman (1969) observed that “patients who managed to deny the most had better survival records”. Many contemporary clinicians tend to supports for this reason (Beisser, 1979). Psychoanalytic theory considers the denial mechanism to be one of major importance, evidenced by Anna Freid’s book “The Ego and the Mechanisms of Defense.” Heart patients in this study were all Government employees, has free access to medical treatment.

**Table 3**

**Comparison for Somatic Awareness Between Coronary cases and Normal subjects**

| SIS Cards & Somatic Responses/imagery Responses | Card No | CHD Cases (N=75) Health Imagery | CHD Cases (N=75) Unhealthy Imagery | Normal (N=75) Healthy Imagery | Normal (N=75) Unhealthy Imagery |
|---|---|---|---|---|---|
| Heart | 2 | 2 | 1 | 28 | 0 |
| Heart | 5 | 10 | 9 | 7 | 0 |
| Lungs | 6 | 17 | 4 | 13 | 3 |
| Heart | 6 | 8 | 1 | 10 | 0 |
| Heart | 7 | 5 | 5 | 9 | 0 |
| Lungs/ Ribs | 8 | 36 | 11 | 45 | 5 |
| Heart | 8 | 24 | 18 | 36 | 7 |
| Kidneys | 9 | 21 | 13 | 67 | 3 |
| Lungs | 9 | 18 | 6 | 18 | 1 |
| Stomach | 10 | 21 | 6 | 25 | 1 |
| Intestines | 11 | 24 | 8 | 51 | 3 |
| Heart | 13 | 8 | 1 | 11 | 0 |
| Vertebra | 15 | 47 | 8 | 66 | 1 |
| Spinal Cord | 17 | 19 | 4 | 41 | 0 |
| Chest / Ribs | 17 | 5 | 0 | 8 | 0 |
| Total | | 265 | 95 | 435 | 24 |

Because of such facilities they feel secure. This might be one of the reasons of denying somatic symptoms in their situation. On card No. 18 though the subject in both the groups perceived house / temple/ castle, but when the contents were analyzed qualitatively, the coronary cases responded more in terms of destroyed castle/house whereas the normal subjects viewed it as sweet home. This may give symbolic indication of their own emotional problems and bad imagery of future life. Heart cases rejected more of those cards stimulating to somatic imagery (7,10,11,12,13 and 14) where usually people perceive so. The concept of denying or heightening was also seen in this study. Cards No. 10,18,20 were perceived as most threatening image by coronary cases. They felt restless and insecure to view these cards. Though cards 10 and 20 were perceived as

most threatening image by normal subjects also but their percentage of rejection was much less. These cards (10,18,20) were rejected by more than 30 percent of coronary cases. Reasons could be that these cards make them to feel restless, nervous and emotionally disturbed. As a whole, coronary cases rejected more cards than the normal subjects. Quality of imagery was also poor in coronary cases.

Normal subjects perceived more of typical responses than their counter parts. Typical responses are those commonly perceived by normal subjects. This further indicated their group conformity and common way of thinking (see Table 4). Normal subject gave about 70 percent of typical responses whereas clinical cases gave only 50 percent. Similar trend in normal subject have been reported earlier (Dubey and Cassell, 1993).

**Table 4**

**Typical Responses between CHD and Normal Subjects**

| Card No | Responses‘ | Normal Subjects | CHD Cases |
|---|---|---|---|
| 1. | Animal / Bird | 36.4 | 10.0 |
| 2. | Flying Bird | 26.4 | 20.4 |
| 3. | Human Figures | 55.2 | 61.7 |
| 4. | Apple | 33.9 | 40.3 |
| 5. | Animal / Bird | 48.0 | 28.8 |
| 6., | Two Birds | 40.0 | 33.6 |
| 7. | Animal | 36.6 | 30.5 |
| 8. | Ribs / Chest | 37.0 | 36.4 |
| 9. | Kidneys | 63.6 | 50.0 |
| 10. | Stomach | 25.2 | 45.0 |
| 11. | Intestines | 51.4 | 42.1 |
| 12. | Human Figure | 41.8 | 37.8 |
| 13. | Fruit | 36.1 | 28.0 |
| 14. | Female Genital | 54.2 | 62.1 |
| 15. | Spinal Column | 73.6 | 75.3 |
| 16. | Two Animal Vertebra | 62.0 | 65.0 |
| 17. | Vertebra | 43.1 | 39.6 |
| 18. | Human Face | 30.9 | 24.0 |

Note: - Number are shone in percentage

Responses given by normal subjects and coronary cases were further analyzed to find out common imagery (Common responses). Trend suggested that normal subjects perceived more of popular concept

**Table 5**

**Comparison of Common Responses Among CHD Cases and Normal Subjects on SIS-I**

| Card No | Responses | CHD Cases | Normal Subjects |
|---|---|---|---|
| 1. | Animal/ Birds | 17.3 | 84.6 |
| | Two birds | 60.0 | 65.3 |
| 2. | Human Figure | 33.3 | 41.3 |
| | Flying birds | 36.0 | 62.6 |
| | Heart | 4.0 | 37.3 |
| | Month/ Lips | 32.0 | 14.6 |
| 3. | Human Figure | 66.6 | 84.0 |
| | Others | 30.0 | 48.0 |
| 4. | Human Figure | 66.6 | 69.3 |
| | Apple / Fruits | 81.3 | 77.3 |
| 5. | Animal birds | 48.0 | 81.3 |
| | Human Children | 57.3 | 36.0 |
| 6. | Two love birds | 52.0 | 69.3 |
| | Lungs / Heart | 40.0 | 34.6 |
| 7. | Animal | 34.6 | 54.6 |
| 8. | Rids cage | 62.6 | 66.6 |
| | Heart | 56.0 | 57.3 |
| 9. | Kidney | 45.3 | 93.3 |
| | Lungs | 32.0 | 25.3 |
| 10. | Digestive System | 36.6 | 34.6 |
| | Lips / Mouth | 6.6 | 24.0 |
| 11. | Intestine | 42.6 | 72.0 |
| | Anatomical | 37.3 | 41.3 |

| Card No | Responses | CHD Cases | Normal Subjects |
|---|---|---|---|
| 12. | Female Genital Organ | 12.0 | 22.6 |
| | Human object | 37.3 | 48.0 |
| 13 | Female Genital Organ | 28.0 | 33.3 |
| | Heart | 12.0 | 14.6 |
| | Plant | 21.3 | 50.6 |
| 14. | Female Genital Organ | 54.6 | 60.0 |
| 15. | Spinal Cord | 73.3 | 89.3 |
| 16. | Two Animals | 54.6 | 82.6 |
| | Ear/Nose Tongue | 2.6 | 9.3 |
| 17. | Chest/ Ribs | 6.6 | 10.6 |
| | Vertebra | 30.0 | 54.6 |
| 18. | Human face | 16.0 | 34.6 |
| | Temple | 20.0 | 16.0 |
| | House | 4.0 | 26.6 |
| 19. | Human Face | 24.0 | 38.8 |
| 20. | Human Face | 22.6 | 33.3 |
| | Others | 48.0 | 40.0 |

than that of coronary cases (Table 5). Percentage of responses on different cards for popular/ common responses in normal subjects supported their adjustment in different situations with their thanking in-group conformity.

**Conclusion:**

It can be concluded that the coronary cases tends to give low numbers of responses, more of somatic in nature, preoccupied with unhealthy somatic imagery with low percentage of typical and common responses. They have rejected more images than normal subjects. " Unclear images" "destroyed home" and unhealthy body imagery were more common in coronary cases. SIS test at this juncture can help on discriminating normal subjects from clinical cases. It can also serve as a diagnostic and therapeutic tool to investigate somatic problems in different groups.

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SIS J. Proj. Pst. & Ment Health (1994) (1) 62-69

# Body Imagery in Vertigo Patients

**Dharamvir, D. Pershad, B.L. Dubey and S.B.S.Mann**

A total sample pf 25 adults, educated, vertigo patients was administered SIS-II to find out whether their body imagery is in touch with reality. It was found that only 31% of the responses on vital organs concorded, indicating denial of body imagery in vertigo patients.

Vertigo is a false sense of rotatory movement of self of surrounding objects. It is an unpleasant sensation associated with sympathetic over activity producing nausea, vomiting, tachycardia, and diarrhoea. Since equilibrium is impaired, ataxia, falling and dysmetria will occur. Vertigo may be associated with stimulation of the primary end organs concerned with the maintenance of equilibrium of interference with central connections (Kaufman, 1990). Disorders of balance caused by structural organic disease in the central nervous system tend to produce both continuing difficulty with balance and non-stop vertigo (Patten, 1987). The major organ involved therein therefore, might be spinal cord, head/brain, lungs, heart. Since the nature of the illness is vague many times a sufferer may not be able to describe which part of the body is involved therein.

Vertigo might be associated with real organ pathology or imaginative or life disturbances. The organ involvement is necessary for proper understanding of the patients and for the catharsis.

The cases history method is not satisfactory for the complete evaluation of the patient. The questionnaire method is equally ineffective. The projective psychological test might be of some significance for complete understanding of the patients. It is with this background, the present study was planned to find out whether vertigo patients are conscious in focusing on the body system.

Cassell et al (1993) reported that the clinical interest in body perception dates back to studies of phantom limbs by Ambrose Pare' in the sixteenth century. Subsequently, the term "Schema" pertaining to body orientation was introduced (Bonnier,1905). Additional terminology was employed to represent " knowledge" or "consciousness" of the body (Gerstman, 1927; Klein,1930) "body image" (Lheimitte, 1939), body "cerebral representation (Hauptmann, 1928; Lange, 1930) or the body as a "preconscious psychological function" (Head and Homes, 1911).

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The inkblot technique is well known to measure the imagination. Based on this technique there are two very famous tests the Rorschach Inkblot and the Holtzman Inkblot test (1956). Recently Somatic Inkblot Series have been added by Cassell (1980). This Inkblot test is based on somatic imagery theory and theory of body symbolism. It was therefore decided to use this technique in the present study.

**Material and Method:**

**Sample:**

Twenty-five adult, educated subjects, suffering from vertigo, visiting Department of Otolaryngology of the Post Graduate Institute of Medical Education and Research, Chandigarh(India) were included in the present study.

**Tool:**

Somatic Inkblot Series-II developed by Cassell (1980) was used. It consisted of sixty-two images specifically designed to elicit body theme. The test is given to the subject under supervised self-administration. Subject is supposed to write his responses for each of the images in the space provided.

**Procedure:**

Each subjects who agreed to the request of the investigator was given the booklet of the test to write his responses. They were also requested to identify three images that they liked most and the three images they liked least. The subject was also supposed to complete all the brief health history information provided therein.

**Results:**

The demographic characteristic of the subject is given in Table 1. A large number of cases of vertigo were below 35 years of age, most of them had college education. The ratio of male and female was 2: 1.

**Table 1**
**Sample Characteristics**

| Characteristics | Number | Percentage |
|---|---|---|
| AGE | | |
| A) 21-35 | 13 | 52 |
| B) 35-40 | 7 | 28 |
| C) 50-65 | 5 | 20 |
| Education | | |
| a) Post Graduate | 6 | 24 |
| b) Graduate | 8 | 32 |
| c) Below Graduate | 11 | 44 |
| SEX | | |
| Male | 17 | 68 |
| Female | 8 | 32 |

Analysis of brief health history as reported by patients are given in Table 2.

**Table 2**
**Analysis of Brief Health History in Vertigo Patents (N=25)**

| Serial No. | Health History | Responses | |
|---|---|---|---|
| | | Present | Absent |
| 1. | History of any past Illness or surgery | 14 | 11 |
| 2. | History of any current Medicine | 3 | 22 |
| 3. | Concerned with physical Symptoms | 6 | 19 |
| 4. | Anxiety about body | 4 | 21 |
| 5. | Pain in any areas of body | 8 | 17 |
| 6. | History of any past or present Mental symptoms | 9 | 16 |
| 7. | Hereditary disabilities that run in family | 0 | 25 |

History of past illness was present in 14 subject (56%). The history of current medicine was only in subject (12%). Only six patients were concerned with physical symptoms (24%). Pain in any area of body was presented by eight subjects (32%). History of past or present mental tension was present in 9 patients (36%). None of the patients, however, reported hereditary disability that run in the family.

Percentage of the images that liked and disked by the subjects are given in Table 3. Only those images are considered here which more than two subjects endorsed.

**Table 3**
**Images Liked and Disked: Serial Number of the Images and Percentage of Subjects**

| Images liked | | Images Liked | |
|---|---|---|---|
| Serial Number Of Images | Percentage of Subjects | Serial Number of Images | Percentage of Subjects |
| A1 | 20 | A2 | 16 |
| A13 | 24 | A10 | 12 |
| A16 | 16 | A11 | 12 |
| A20 | 12 | A26 | 12 |
| A24 | 12 | A29 | 36 |
| A31 | 12 | B2 | 16 |
| B5 | 32 | B3 | 20 |
| B28 | 24 | B13 | 12 |
| B31 | 20 | — | — |

N.B. only those areas considered here that were liked or disliked by more than two subjects.

Most of the images depict more specific body them. Table 4 presents the concordance between structural theme and the perceived theme of the images (Fisher, 1964).

For complete correspondence between structured and perceptual response frequency should has been 350. T7otal obtained responses frequency-108, concordance=30.9%

Table 4 suggested that there were four images each structured to elicit spine, lungs, heart and two for head/brain. These structural theme concords with the perceptual theme for the 60%. It was suggested that subjects have been trying to evade the reality. On some other images, which were not designed to elicit lungs, head, heart and spine subjects saw this perceptual theme. The serial number of the images discarded with perceptual theme is given in Table 5.

**Table 4**
**Concordance Between Structured and Perceptual Them of the Images by Vertigo Cases in Percentage**

| Serial Number of Images Specific to elicit | Percentage of Subjects perceiving corresponding theme (Concordance) | |
|---|---|---|
| a) Spine/ Backbone/ Spinal column | | |
| A22 | 14 | 56% |
| A23 | 15 | 60% |
| B16 | 11 | 44% |
| B18 | 0 | 0% |
| B) Head/ Brain/ skull | | |
| A30 | 9 | 36% |
| B20 | 10 | 76% |
| B) Lungs | | |
| B30 | 4 | 16% |
| B20 | 10 | 40% |
| B9 | 10 | 40% |
| B11 | 3 | 12% |
| D) Heart | | |
| A16 | 0 | 0% |
| A17 | 2 | 8% |
| A18 | 0 | 0% |
| B17 | 11 | 44% |

Total Number of images 14

9 subjects saw heart on the images designed to elicit floral arrangement, human image and ears. 11 subjects perceived stomach and lungs as spine/back bone. 15 subjects perceived Head/brain on the figure eliciting fire, eye, heart, lungs and fetus. Lungs was perceived on wide variety of images structured to elicit heart, ribs, kidney, ear, human being by 16 subjects.

**Discussion:**

SIS-II test is a structured projective diagnostic instrument. Images in the test are semi-ambiguous inkblot images. The inkblots involved body and organ imagery. The test helps the subjects to bring his repressed body concern at the conscious level. A large number of vertigo patients (56%) are those chronically ill patients who feel that they had history of past physical and surgical illness. 36% admitted that they had history of mental tensions as well. Only a meager number of subjects (12%) had admitted that they were on medical treatment other than for vertigo illness.

**Table 5**
**Discordance Between Structural and Perceptual Theme of the Images by Vertigo Cases.**

| Perceptual Them | Elicited by image number | Frequency | Discordant structural theme |
|---|---|---|---|
| Lungs | A1 | 3 | Human |
| | B7 | 3 | Ribs |
| | A17 | 4 | Heart |
| | B24 | 2 | Kidney |
| | B30 | 4 | Ear |
| Head | A13 | 2 | Fire |
| | A10 | 4 | Eyes |
| | B11 | 5 | Lungs |
| | A18 | 2 | Heart |
| | A26 | 2 | Fetus |
| Heart | A2 | 2 | Floral Arrangement |
| | A5 | 3 | Human |
| | A24 | 2 | Human |
| | B30 | 2 | Ear |
| Spine/Backbone | B11 | 6 | Stomach |
| | A14 | 5 | Lungs |
| Total | - | 51 | |

Cassell (1980) maintained that liked and disliked images by the subject throw some light on psychopathology of the subjects. In the vertigo patients this theory had not worked properly. All the images, which were liked by the vertigo patients, were those having more obvious, less ambiguous and has good from structure. The images, which were disliked had less obvious, more ambiguous and poor form structure. The ambiguity of the images has been given in a manual (Cassel, 1990) with consistency in response over short period of time interval. “Liked “ images in the present study were those where the same responses was given by more than 60% of the subjects, generally constituting Most Typical responses. “Disliked” images in the present study were those where same responses were given by less than 50% of the subjects. It can be concluded that liking and disliking of the images on SIS-II by the vertigo patients depends upon the clarity of the structure.

The vertigo patients have diffused concern about body parts. The body parts involved therein are likely to be spinal cord, lungs, heart and head/brain. Therefore, material

collected was analyzed to find out whether diffused concern about inner body parts gets crystallized through SIS test. It was noticed that except for few subjects, a large number of them have tried to ignore the reality, by not perceiving the structural theme of the images. The most evaded area was that of heart and the least evaded area was that of spine /spinal column/backbone. This may suggest denial/repression mechanism, helping to keep the body fit (Cassell, 1980; Beisser, 1979). Fifty-one responses were definitely pathological. If a subject perceived a thing contrary to its prescribed theme, it means he is pre-occupied with that body part. In the present studyconcordance for four vital organs was about 31%. About 69% of the responses were discordant. The implication of this finding could be that about 31% of the responses are reality oriented where as in 69% reality was evasive.

**Summary:**

Twenty-five vertigo patients were administered Somatic Inkblot Series-II, to find out their body imagery, whether it was healthy or unhealthy. The vertigo patients were found in greater frequency having history of past physical and surgical illness and concerned with mental tension without any medication for this problem.

The liking and disliking of the images on SIS-II was determined by structural clarity of the form level of the psychopathology of the subjects. Concordance between structural them and perceptual theme for four vital organs was found only for 31% of the responses. Denial to see the real structure is denial of problem at conscious level. To conclude it can be said that a large number of responses are not reality oriented and liking and disliking depended upon structural good form level of the image, in vertigo patients.

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SIS J. Proj. Pst. & Ment Health (1994) (1) 70-74

# Somatic Inkblot Series-I in Male Transsexuals

**M. Sahay and P.K. Srivastava**

The Somatic Inkblot Series-I (SIS-I) test was administered to two Transsexual to under stand their personality, and inner cry if any. The test was found to be very powerful to bring out lots of unprocessed unconscious material. SIS was further helpful in the process of therapeutic intervention.

It has been rightly realized that a symptom has cause significance and an economy. With growing trend to understand disease only in its phenomenological aspects, dynamic diagnoses and genotypic experiences are not much looked into. However, there are clinicians who are dynamically oriented and try to acquire insight into the symptoms of their patients and are able to profit from that insight. Projective tests have been of much value in this regard. The emerging data on Somatic Inkblot Series, commonly known as SIS, have been showing a helpful trend in the dynamic interpretation of symptoms (Dubey et al, 1992). Psychotherapists all over the world have heard the cry for help from their patents in variety of ways such as abused children, victims of war and catastrophe through post traumatic stress disorders, conflicts or continued frustrations in school, job, marriage or adjustments in life situations (Cassell, 1990) Being prompted by such studies, authors of this paper used SIS Cards to understand the psychopathology behind the distress of two male transsexuals aspiring for sex-change or at least penectomy.

**Material and Method:**

The study has been conducted on two male transsexuals who were referred to us from the department of surgery where they had gone for sex change or at least penectomy.

**Case 1:**

Male, 16 yrs, unmarried, Hindu, student of IX Class, coming from an educated family of Bombay. On Standard Progressive Matrices, he obtained Grade-III+.

**Cases 2:**

Male, 22 Years, unmarried, Muslim, undergoing some Islamic religion course, coming from uneducated family of Saharanpur. On Standard Progressive matrices, he obtained Grade-III.

They were both stubbornly asking for sex change or at least entomb. The authors realized that symptoms were merely shells and wanted to know them deeper, understand their inner cry and distress to escape their shells. For this purpose SIS Cards were administered as per the manual (Cassell, 1980)

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**Results:**

**Table 1**
**Responses Given by the Two Cases on the SIS Card.**

| Card No. | Cases No.1 (original responses in Hindi) | Cases No. 2. |
|---|---|---|
| I | fleeing hen being followed by an annoyed looking man. | She cat playing with a bird. |
| II | A man with raised hand, with a funny hat and a very open mouth without teeth. | Animal dancing above a butterfly flying. |
| III | Two persons secretly playing a forbidden play. | Two people dancing. |
| IV | A man blindfolded dancing, some red blot in between thighs. | A woman dancing keeping an apple on her head. |
| V | A cloaked hefty man catching/ aAttacing kids. | A flying Bat. |
| VI | Beetle leaf with useless flowery stem | Elephants fighting with their trunks |
| VII | A horse surrounded by snakes | A beautiful female genitalia |
| VIII | Crushed thigh area | Female phallic areas below waist |
| IX | Kidney and excreta area | Internal organs of stomach |
| X | Anaema Apparatus | A feeding tube for Children |
| XI | Cactus | Bushy flower |
| XII | Man with woman's organ in peculiar position.. | Fat child thin legs |
| XIII | Anus and Female organ | Beautiful female genitalia. |
| XIV | Female organ | My desired female genital |
| XV | Backbone | Backbone. |
| XVI | Testicle with dissected male organ. | Part of face. |
| XVII | Crawling crab with neck out | Bone of spine and stomach. |
| XVIII | Angry face fearful | Ghost |
| XIX | Earthen lamps being balanced | Hands of Ghost |
| XX | Ugly looking strange creature magnified. | Ghost with its fearful face. |

The responses were scored for Anxiety Threat Rating (ATR) on the model given by Elizur (1949) and Holtzman (1956) and also for Movement Responses (MR).

**Table 2**

**ATR and Movement Responses**

| Card Nos. | Case No.1 | | Case No. 2 | |
|---|---|---|---|---|
| | **ATR Scores** | **MR. Scores** | **ATR Scores** | **MR. Scores** |
| I | 1 | 3 | Nil | 3 |
| II | Nil | 2 | Nil | 3 |
| III | 1 | 3 | Nil | 3 |
| IV | 1 | 3 | Nil | 3 |
| V | 2 | 3 | Nil | 3 |
| VI | Nil | Nil | Nil | 3 |
| VII | 1 | Nil | Nil | Nil |
| VIII | 2 | Nil | Nil | Nil |
| XVI | 1 | 1 | Nil | Nil |
| XVII | Nil | 3 | Nil | Nil |
| XVII | 2 | Nil | Nil | Nil |
| XIX | Nil | 1 | Nil | Nil |
| XX | Nil | Nil | 1 | Nil |
| ATR percentage | | 40% | | 5% |
| MR Percentage | | 40% | | 30% |

In case 1, there is significantly high percentage of ATR and MR responses. In this case the ATR responses are mostly associated with phallic contents, their distorted perceptions and possible association with traumatic experiences.

To search out the dynamic interaction of early childhood experiences and the possible traumatic attack on the tender psyche, hypnodiagnostic sessions were planned. Before that, to know their hypnotic susceptibility, Stanford Hypnotic Susceptibility Scale Form A (A.M. Weitzen Hoffer and E. Hilgard, 1959) was administered and the scores are mentioned in Table 3.

**Table 3**
**Hypnotic Susceptibility Scores**

| | |
|---|---|
| Case No.1 | 9 |
| Case No. 2 | 4 |

**Discussions:**

Since Case 2 had poor hypnotic susceptibility and insignificant TR responses, he was not put on hypnodiagnostic sessions. Case 1 had high hypnotic susceptibility score and he was put on hypnodiagnostic sessions.Four such sessions revealed that his mother was selfish, dominating and perhaps insecure. Till date he was dressed like a girl and was appreciated more in feminine dress. While about 7 years of age, he was staying with her mother in Arab Countries, where he was sodomised by an elderly hefty Arab Citizen and had all sorts of painful experiences. This was an Ego-dystonic experience, which is reflected in his response on Card III "Two persons secretly playing a forbidden play". Similarly the repressed traumatic experiences are well reflected in his responses on Card 5 'A clocked hefty man catching/ attacking kids'. This traumatic experience along with rearing experiences had led to distorted perceptions about his penis, and which are reflected in his responses on Card No. 4,8,12 and 16. On Card No. 4, Blindfolded' means that he was forced to do something against his desire and that 'red blot' which is apparently near the Phallic area indicates a distorted perception of Phallus. It may further indicate some traumatic experiences, which make him to see 'red' in phallic area but doesn't perceive the rest of the red part of this card. Card No. 8 'Crushed thigh areas' again brings out his traumatic experiences during childhood. This is collaborated with the case history and hypnodiagnostic data about his sufferings and traumatic sex-abuse. The painful experiences during his childhood leading to a disturbed gender identity are reflected on Card No. 12 where he says, A man with woman's organ in peculiar position' and on Card No. 16 'testicle with dissected male organ (Pathologic anatomy responses.)

These findings indicated that the responses on SIS Card do reflect the repressed painful experiences leading to a disturbed body-image and in this cases even leading to a pathological desire for sex-change and/or penectomy, to get rid off anxiety and such of distress feelings.

This case 1 was put on dynamic oriented psychotherapy and about 20 such sessions lasting for about 50-55 minutes each could burring about considerable reduction in his Pathological desire to get a sex change or at least penectomy and he was able to interact comfortably with other male students of his school.

Case 2 was put to 10 psycho diagnostic interviews each lasting for about 50 minutes. It was learnt that he had lost his father before the age of 4 years and was being reared up by one of has relatives and during his stay with that family he was sodomised around the age of 8 years. He enrolled himself in some Islamic religious school and gradually got indoctrined that such sexual activities are forbidden by the religion. Thus, he had developed homophobia and as a consequence wanted sex change. On many cards he has given responses with the contents of female genital and at times attributed the objective, 'Beautiful'. He could not be weaned out of his desire for sex change during this period and did not come for therapeutic intervention.

If one analyses the responses of case 1 and 2, one can safely conclude that SIS has the capacity to peep into the inner world of the patients and can bring out repressed material on the surface for processing.

**Conclusion:**

SIS Cards could help us to break the shells of these two cases, look deeper and deeper into their psyche and understand their inner cry. It also reveled the patient's rich inner dynamic experiences, on the strength of which we could get a fruitful directional specific goals leadind to somewhat successful psychotherapeutic interventions.

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