

Social
Introversion
Extroversion

(Sie)

The Social Introversion scale is based upon the work of Evans and McConnell (1941) who authored the Minnesota T-S-E Inventory. The investigation centered about the dimensions of Thinking, Social, and Emotional aspects of behavior and their manifestations in either the introverted or the extroverted aspects of a persons behavior.

Evans, C., & McConnell, T. R., (1941). "A new measure of introversion-extroversion". *Journal of Psychology* 12, 111-124.

Drake (1946) based the Social Introversion (Sie) scale on Evans and McConnell's work with the Minnesota T-S-E Inventory's Social introversion items. Seventy items, which separated the top 65 percent and, lowest 35 percent of 100 female college students, who served as test subjects, formed the Sie scale.

Drake, L. E., (1946). "A social I.E. scale for the Minnesota Multiphasic Personality Inventory". *Journal of Applied Psychology* 30, 51-54.

The Sie Scale criterion group is composed of healthy persons. Test norms for males were similar to the female norms; the two groups' combined results form the scale. The norms are composed of 350 female and 193 male college students. [An interesting aspect of this norming reflects the types of males in college during WW II. Those males capable of serving in the Armed Forces were not included or represented in this testing].

The 69 items (MMPI-2) composing the Social Introversion scale overlap with the other scales as follows: **L (0), F (0), K (9), 1 (1), 2 (8), 3 (8), 4 (11), 5f (11), 5m (9), 6 (5), 7 (9), 8 (6), and 9 (6)**. 34 items are scored in the true direction, 35 in the false direction. Foerstner's (1986) studies reflect the multifactorial nature of the Sie scale.

Foerstner, S. B., (1986). "The factor structure and stability of selected Minnesota Multiphasic Personality Inventory (MMPI) subscales: Harris and Lingoes subscales, Wiggins's content scales, Wiener subscales, and Serkownet subscales". Unpublished dissertation, University of Akron, Ohio.

The Sie scale indicates the degree of comfort a person experiences when they are in the company of other people. Lewak et al., (1990) writes concerning high Sie scale scores, a person had "...a childhood characterized by an absence of warmth and physical contact from others. Elevated scores suggest that these people have extinguished their feeling response to physical touch and affection. They suffer from "affect hunger" and yet, they feel conflicted about close, intimate relationships." (p. 273). Low scores on the other hand suggest an intense need for stimulation afforded by the close proximity of other peoples' energetic activities.

Lewak, R. W., Marks, P.A., & Nelson, G. E., (1990). *Therapist's Guide to the MMPI and MMPI-2: Providing feedback and treatment*. Muncie, IN.: Accelerated Development.

The Sie scale also reflects a person's willingness to be in the proximity of others. It includes a person's readiness to engage with others in social and work settings. Introverted people do not have social poise, engage in ready repartee, or involve themselves in quick witted, jocular, give-and-take. They ask themselves, "Why didn't I think of that" as a belated rejoinder to intentionally cutting comments. All those missed opportunities! They are usually not an insider, They are not even familiar with the current in-group's slang or the intimate references used by the in-group.

Introverted people isolate themselves when they feel under pressure. This could be due to the experiences of past disappointments and emotional injuries. They go it alone for lack of any other supportive options.

Extroverted people have learned to welcome the enjoyment they gain from the stimulation other people offer them. They are socially skilled. They give and take on an equal footing. They turn to others in times of difficulties, using these contacts as sources of emotional support and sources of solution to the problems facing them. They learn from others more easily than they do when attempting to learn new information and skills by themselves. They do not like being alone.

Kunce and Anderson, (1984) propose autonomy as the principal force under girding the Social Introversion scale. One can either function as a resourceful, self-directed, independent individual or withdraw into them-selves leaving the world of people behind.

Kunce, J., & Anderson, W., (1984). "Perspectives on uses of the MMPI in non-psychiatric settings". In P. McReynolds, & C. J. Chelune (Eds.). *Advances in psychological assessment*. San Francisco: Jossey-Bass.

Research studies with the Sie scale. Steyaert et al., (1994) investigated the higher incidence of psychiatric morbidity in **female fragile X carriers** (fragile X syndrome, also known as the Martin-Bell syndrome, after the British investigators who first reported it in 1943). The tip of the X chromosome tends to break off in many of those affected. Hence, the name Fragile X. Female carriers have more disorders that are schizophrenia-like. The sample mean MMPI scale scores fell within the normal range for a group of 11 females of normal intelligence. Low scores on the Sie scale reflected extraversion, not introversion, as expected.

Steyaert, J., Decruyenaere, M., Borghraef, M., & Fryns, J.P., (1994). "Personality profile in adult female fragile X carriers: assessed with the Minnesota Multiphasic Personality Inventory (MMPI)". *American Journal of Medical Genetics* 51 (4), (370-373).

Meehl, (1989) proposed a research model opposing biological **vs.** psychological **causation in the genesis of schizophrenia**. Meehl hypothesizes those given unfavorable polygenic potentiators (e.g., introversion, hypohedonia, and anxiety) and adverse life experiences (e.g., childhood trauma or adult misfortune), 10 percent of such individuals so afflicted develop schizophrenia. Meehl concludes, "Taxometric statistics are appropriate to testing a major locus model".

Meehl, P. E., (1989). "Schizotaxia revisited". *Archives of General Psychiatry* 46 (10), (935-944).

Gauci et al., (1993) used the MMPI to study women with allergic rhinitis. Twenty-two female sufferers of perennial **allergic rhinitis** (inflammation of the nasal mucosa initiated by botanical airborne substances) and an 18 non-allergic female control group. Allergic sufferers scored significantly higher scores on the Sie scale along with high score on Scale 1 (Hs). Skin reactivity to house dust mite and grass pollen allergens correlated positively with scores on the Sie scale.

Gauci, M., King, M. G., Saxarra, H., Tulloch, B. J., & Husband, A. J., (1993). "A Minnesota Multiphasic Personality Inventory profile of women with allergic rhinitis". *Psychosomatic Medicine* 55 (6), 533-540.

Fals and Schafer (1993) examined the relationship between **compliance with a behavioral therapy program** and MMPI profiles of obsessive-compulsive disorder (OCD) outpatients. Compliance referred to the number of scheduled therapy sessions cancelled or missed. High scores on scales Sie, 2 (D), and 8 (Sc) predicted lower compliance with treatment for OCD patients engaged in behavioral therapy.

Fals, W. W., & Schafer, J. (1993). "MMPI correlates of psychotherapy compliance among obsessive-compulsives". *Psychopathology* 26(1), (1-15).

Danjou et al., (1991) screened 62 young healthy volunteers with the MMPI for **eligibility to participate in psychopharmacology studies**. The most striking differences occurred on the Sie scale, which was lower than even the controls Sie scores, but significantly higher than controls on Scales 4 (Pd), 9 (Ma), and 8 (Sc). The low Sie scale scores were statistically significant at the .0001 levels. Bias is possible in the selection of psychopharmacology research volunteer subjects. Drug seeking may be an important factor urging young healthy males to volunteer.

Danjou, P., Warot, D., Weiller, E., Lacomblez, L., & Puech, A. J., (1991). "Personality of healthy volunteers. Normality and paradox". *Therapie* 46(2), (125-129).

Siegler et al., (1997) utilized the MMPI to study 796 women and 3,630 men enrolled in the University of North Carolina Heart Study to test the predictive power of personality on **adult exercise behavior**. Lower scores on Scales 0 (Sie), 2 (D), and 4 (Pd) are predictive of an increased probability of exercising in mid life for both women and men.

Siegler, H. D., Blumenthal, J. A., Barefoot, J. C., Peterson, B. L., Saunders, W. B., Dahlstrom, W. G., Costa, P. T., Suarez, E. C., Helms, M., Maynard, K. D., & Williams, R. B., (1997). "Personality factors differentially predict exercise behavior in men and women". *Women's*, 3 (1.1), 61-70.

Richman, (1983) used the MMPI to study 30 **adolescents with cleft lips and palates**. Heightened social introversion was associated with increased self-consciousness centering on their cleft lips and palates when the adolescents found themselves in social situations.

Richman, L. C., (1983). "Self-reported social, speech, and facial concerns and personality adjustment of adolescents with cleft lip and palate". *Cleft* 20(20), (108-112).

Peterson and Knudson, (1983) cross-validated several measures of anhedonia and the MMPI Sie scale. The results of multiple statistical measures lead to the conclusion, "**The high degree of relationship between anhedonia and introversion**, long suggested by clinicians, is confirmed".

Peterson, C. A., & Knudson, R. M., (1983). "Anhedonia; a construct validation approach". *Journal of Personality* 47 (5), (539-555).

Kling et al., (1978) studied the scoring norms **on adolescent psychiatric drug users and non-users MMPI profiles**. Sie scale scores differentiated the users from non-user profiles. Low Sie scores were more frequently associated with drug use.

Klinge, V, Lachar, D., Grisell, J., & Berman, W., (1978). "Effects of scoring norms on adolescent psychiatric drug users and non-users MMPI profiles". *Adolescence* 13 (49), (1-11).

Anseau et al., (1986) investigated the relationship between MMPI scale scores and **dexamethasone suppression tests** (DST) with 42 patients diagnosed with **major depression**. The Sie scale scores correlated positively with depression and negatively with Scale 9 (Ma) scale scores.

Anseau, M., Frenckell, R., Frank, G., Geenen, V., & Legros, J. J., (1986). "Dexamethasone suppression test and MMPI scales". *Neuropsychobiology* 16 (2-3), 68-71.

Nocita et al., (1986) used the MMPI to investigate the relationship between the **MMPI Sie scale** and the experience 83 **introverted clients** had in **counseling sessions**. Clients with higher Sie scale scores rated their sessions as uncomfortable, unpleasant, tense, rough, and difficult. They rated their post-session mood as unfriendly, uncertain, sad, angry, and afraid.

Nocita, A., & Stiles, W. B., (1986). "Client introversion and counseling session impact". *Journal of Counseling Psychology*, 33 (3), 235-241.

Yen and Shirley (2003) investigated the MMPI subscales' ability to differentiate male **suicide completers, clinically depressed men, and a control group of men who died of medical causes**. Suicide completers have significantly higher Sie scores when compared to depressed and deceased controls.

Yen, S., & Shirley, I. C., (2003). "Self-blame, social introversion and male suicides: Prospective data from a longitudinal study". *Archives of Suicide Research*, 7 (1), 17-27.

Craig and Bivens (2000) examined the relationship between **psychological needs** of 198 non-clinical subjects using the Adjective Checklist **and the MMPI. Scale O (Sie) scale** scores were positively associated with need for receiving support, showing deference to others, and a preference for being a follower rather than a leader. The same scores were negatively associated with needs for achievement, dominance, autonomy, and exhibitionism.

Craig, R. J., & Bivens, A., (2000). "Psychological needs associated with MMPI-2 scales in a non-clinical sample". *Journal of Personality Assessment* 74 (3), (439-446).