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THE RELATIONSHIP OF FIELD DEPENDENCE-INDEPENDENCE TO PERCEPTUAL DEFENCE AND SELECTIVE MEMORY

by

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Thesis submitted to the Department of Psychology of the University of the Witwatersrand in fulfilment of the requirements for the degree of Master of Arts in Clinical Psychology.

June, 1972

E R R A T A

Table of Contents:	Read "specialization" instead of "specialisation"
p.i:	Read "specialization" instead of "specialisation"
Abstract:	Read "both techniques yielded non-significant results" instead of "both techniques yielded negative results"
Summary:	Read at the end of paragraph 3 "The sample used in this study comprised thirty first year female psychology students who were randomly selected from the first year class"
p.2:	Read "analytical" instead of "computational"
p.3:	Read "global-articulated" instead of "global articulated"
p.8:	Read "these data" instead of "this data"
p.13:	Read "isolation eliminates feeling" not "isolation climates feeling"
p.14:	Read " ot known to" instead of "known not to"
p.16:	Read "wholistic" instead of "holistic"
p.21:	Read "102" instead of "86"
p.30:	Read "correlations have been found between familiarity ratings and ease of recognition of groups of verbal stimuli"
p.35:	Read "liklihood" instead of "likelihood"
p.49:	Read "individual's ability" instead of "individuals ability"
p.54:	Read "df 28" instead of "df 14" ($p < ,05$)
p.56:	Read "df 28" instead of "df 14" ($p > ,05$)
p.58	Read "questionaire" instead of "questionnaire"

.../p.60

p.60: Read "solvable" instead of "soluable"

p.65: Note that the apparatus used in this study was designed by Philip Oltman not N.I.P.R

p.70: Note that the lights attenuated the subject's use of proprioceptive cues rather than preventing the use of visual cues.

p.70: Note that Philip Oltman's schedule not Witkin's schedule was used in this study.

p.76: Read "then" instead of "than"

p.81: Delete "ready"

p.87: Note that Philip Oltman's schedule not Witkin's schedule was used in this study.

p.88: Read "selective" instead of "sleective"

p.89: Read:

$$RFT^1 = \frac{\text{number of degrees of rod from the vertical}}{8}$$

p.90: Read:

$$Fd\text{-}Fdi^1 = \frac{RFT^1 + BAT^1}{2}$$

p.90: Read:

$$BAT^1 = \frac{\text{number of degrees of chair from the vertical}}{8}$$

p.91: Four subjects were used in the anova

p.92: Note "dr 28" instead of "df 29"

p.109: Read"hierachic"instead of "Hierachic"

p.110: Read "decontextualisation" instead of "decantextualisation"

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I wish to thank:

Dr G.V. Grant, my supervisor, for his aid, advice and encouragement;

Dr G.K. Nelson who read the original draft and was always prepared to assist me;

Mr W. Steyn of the National Institute for Personnel Research who placed equipment at my disposal and allowed me to photograph the apparatus;

Miss G.Aryden who encouraged me and who always had time for discussion.

G. Bryce

ABSTRACT

The aim of the study was to test Witkin's separation hypothesis. This hypothesis holds that field dependence-independence is related to the ability to keep affect, percept and ideation seperate.

In order to test this hypothesis field dependence-independence, as measured by the rod and frame and body adjustment tests, was related to performance on perceptual defence and selective memory tasks. A correlational analysis and an analysis of variance were used to assess this relationship. Both techniques yielded negative results however and on the basis of this, the separation hypothesis was rejected.

An explanation for these negative results was then sought and this led to a re-examination of Witkin's work in general. This re-examination of Witkin's work raised some questions as to the validity of the field dependence-independence concepts themselves. However it was finally concluded that these concepts were valid if they were seen as one dimension of perceptual functioning rather than as a general explanatory principle of human behaviour.

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SUMMARY

The aim of the study was to assess Witkin's separation hypothesis. This hypothesis holds that field dependence-independence or the ability to make a judgement independent of a confusing background is related to the ability to keep thought, percept and affect separate.

Witkin arrived at this hypothesis after noting the relationship between field dependence-independence and variables such as nature of the body and self concept. More specifically he formulated this hypothesis because of the relationship found to exist between field dependence-independence and clinical symptom pictures including the nature of the defences employed by the individual. On the basis of this relationship and the belief that defences operate through mediating the interrelationships between affect, percept and ideation Witkin proposed that field dependence-independence was related to the ability to keep affect, percept and ideation separate.

This hypothesis was never directly tested however and it is with this, that the present study was concerned. The two experimental strategies selected for this purpose were the perceptual defence and selective memory strategies.

.../These

These two strategies were alike in that both required a standard response to two sets of stimuli matched in all respects other than their affective value. Thus any differences in response to the two sets of stimuli could be accounted for in terms of their differing affective values. This then facilitated the assessment of the differential susceptibility of field dependent and field independent subjects to affectual factors in stimulus input.

In the present study however, no difference in susceptibility to affectual factors was found between field dependent and field independent subjects. Both a correlational analysis and an analysis of variance indicated that field dependence-independence, as measured by performance on the rod and frame and body adjustment tests, was unrelated to performance on either the perceptual defence or selective memory tasks. Thus it was concluded that Witkin's separation hypothesis was invalid as field dependence-independence was not found to be related to the ability to keep affect, percept and ideation separate.

This conclusion however was contrary to that predicted by Witkin and contrary to the findings of Minard who worked in this area. An explanation of this was therefore sought and a re-examination of Witkin's work and a comparison of Minard's and the present study was undertaken for this

.../purpose

purpose.

On the basis of this two conclusions were reached. Firstly it was concluded that Witkin's original field dependence-independence inter test correlations were inflated. Secondly it was concluded that many of the relationships between field dependence-independence and various variables found by Witkin, Minard and others were in part due to the relationship all these variables share in common with intelligence. In other words it was concluded that many of the relationships found by Witkin were a function of test contamination.

The implication of these conclusions for the validity of the field dependence-independence concept was then assessed. It was proposed that the main error in Witkin's work was his attempt to include too wide a range of perceptual and personality characteristics within a single dichotomous classification. The concept of field dependence-independence itself was not considered invalid but overinclusive. The concept was held to have validity if it was considered to be one dimension of perceptual functioning rather than an explanatory principle underlying all human behaviour as originally advocated by Witkin.

INTRODUCTION

The terms field dependence-independence were first coined by Witkin in the 1950's and they refer to differing modes of perception (100). Field dependence(Fd) refers to perception which is strongly dominated by the overall organisation of the field and parts of the field are experienced as fused. Field independence (Fdi) refers to perception which is not strongly dominated by the overall organisation of the field and parts of the field are experienced as discrete from the original background. In essence, Fd-Fdi represent two extremes along a continuum of the perceptual ability to separate stimuli from their background (105).

Witkin subsequently found however that the difference in the ability to separate stimuli from their background was not limited to perceptual functioning but extended to intellectual functioning (102). Further, Fd-Fdi was found to be related to such variables as: nature of the body and self concept and nature of the defences employed by the individual (102).

In sum, field dependence was found to be negatively related to clarity of body boundaries, the feeling of being an individual distinct from others, the development of internalised standards and the use of specialised rather than diffuse defence mechanisms. Field independence on the other hand was found to be positively related to these

.../variables

variables (102). Witkin explained these relationships by postulating that Fd-Fdi i.e. differences in the ability to separate an immediate stimulus from its background is related to differences in the ability to separate affect from percept and ideation (102).

Zigler however has pointed out that contamination has been a particularly difficult problem in testing directly the assumption that Fd-Fdi is related to the ability to separate affect from perception and ideation (107). The possibility of contamination has arisen because experiments in this area have used clinical procedures to measure emotional-perceptual separation and these procedures themselves permit the evaluation of Fd-Fdi per se. Although attempts have been made to reduce contamination, data such as that provided by Rorschach tests, interviews and diagnoses still contain information on Fd-Fdi per se.

Critical tests of the separation hypothesis therefore require an evaluation of emotional-perceptual-ideational separation by procedures not known to provide information on Fd-Fdi per se. Two such procedures could be the measurement of perceptual defence and selective memory.

CHAPTER I

HISTORICAL BACKGROUND OF FIELD DEPENDENCE-INDEPENDENCE

1 The Emergence of the Seperation Hypothesis

The terms Fd-Fdi refer to two differing poles in the ability to seperate an immediate stimulus from its background. Several tests have been evolved to measure individual differences along this dimension. Of these the three core measures used by Witkin and his associates are the rod and frame test (RFT), the body adjustment test (BAT) and the embedded figures test (EFT). The RFT and the BAT were part of the battery of tests initially used by Witkin in his work on space orientation from which his concepts of Fd-Fdi were derived. The EFT which is currently a popular measure of Fd-Fdi was however a later test and differs from the BAT and RFT in certain important ways. While all three tests are concerned with the individual's ability to keep an object seperate from an organised field in perception, the BAT and the RFT are concerned with the individual's perception of the upright while the EFT is not concerned with this. Here then there is a broadening of Witkin's concept

.../of

of Fd-Fdi as an ability to judge the upright independent of a confusing background to a more general ability to separate an immediate stimulus from its background. It is this more general perceptual style which is now known as Fd-Fdi (100).

Soon, however, Witkin began to broaden his notions still further. Correlations between Fd-Fdi and various intellectual tasks were noted (102). It was found, for example, that individuals who were field dependent obtained poorer results on tasks requiring the isolation of elements from a context as in Duncker's functional fixity tasks than did individuals who were field independent (102). Similarly it was found that field dependent individuals performed more poorly on those sub tests of intelligence requiring computational or spatial abilities viz. block design, picture completion and object assembly than did field independent individuals (102).

On the basis of these findings the perceptual dimension of Fd-Fdi was extended into the cognitive area where it became known as global versus articulated functioning. In global functioning as in field dependence, the organisation of the field as a whole dictates the manner in which its parts are experienced. In articulated functioning as in field independence the parts of the whole are

.../experienced

experienced as discrete. However, in Fd-Fdi the individual is dealing with an immediately present stimulus configuration while in global versus articulated functioning the individual is dealing with symbolic representations (102).

Witkin now extended his work still further and assessed the relationship between performance on Fd-Fdi tests and performance on tests designed to measure various personality dimensions. On the basis of these studies, which will be cited below, Witkin concluded that the global articulated style of cognitive functioning was part of a still broader dimension of personal functioning viz. the dimension of psychological differentiation (102). Witkin came to this conclusion after he had studied the relationship between Fd-Fdi and various personality dimensions such as authoritarianism, sociability, dependence, external directedness and the use of differential controls and defences. However in this regard only those studies relating Fd-Fdi to nature of the body and self concept and nature of controls and defences employed will be considered. It was from these studies that the separation hypothesis emerged i.e. the hypothesis that Fd-Fdi is related to the degree of emotional-perceptual-ideational separation of which the individual is capable.

.../2

2 Field Dependance-Independence and Nature of the Body Concept

In Witkin's terms, the body concept refers to the "systematic impression an individual has of his body, cognitive and affective, conscious and unconscious" (102, p. 318). An individual's body concept may vary from one in which the individual experiances his body as having definite limits with body parts discrete yet interrelated into a definite structure, to a concept in which there is a fusion of body and field in experience and a lack of clear body boundaries. Witkin predicted that field independent individuals would tend to have the former body concept while field dependent individuals would tend to have the latter body concept (102).

Performance on the RAT itself allows some inference about the nature of the body concept. The individual who aligns his body with the field in order to experience it as upright must be experiencing some body-field fusion. In order to further evaluate the relation between the body concept and Fd-Fdi, however, Witkin evolved a test which was especially designed to measure the nature of the body concept viz. the Draw-a-Person test (DAP)(100). On the basis of the correlations subsequently found between the

.../DAP

LAP, the RFT, BAT and EFT Witkin concluded that the ability to separate an immediate stimulus from its background was related to the ability to conceptualise ones own body as an entity independent from the environment (100).

3 Field Dependence-Independence and the Self Concept

Closely tied up with the body concept is the self concept. Just as Witkin predicted that Fd-Fdi would be related to nature of the body concept so he predicted that Fd-Fdi would be related to the individual's sense of a separate identity (102). A sense of separate identity refers to an awareness of needs, feelings and attributes which one recognises as ones own and distinct from those of others (102). A sense of separate identity implies experience of the self as structured and the formation of internal frames of reference as guides for a definition of the self rather than a reliance on external sources for a definition of attitudes, judgements and sentiments (102). Using this definition of a sense of separate identity Witkin predicted that *field independent* individuals would have a clearer sense of separate identity than field dependent individuals.

.../That

That Fd-Fdi is related to clarity of sense of separate identity has been confirmed by many different investigators. For example Linton (59) found that in an autokinetic situation the field dependent individual more often changed his judgements in accordance with a planted confederate than did the field independent individual. Similarly, Demarin (17) showed that field dependent individuals experienced more incidental learning than did field independent individuals when the incidental material was human faces but the opposite was true when the incidental material was non human. Thus the field dependent individual does seem to be more reliant on external sources for a definition of attitudes and sentiments than does the field independent individual.

4 Field Dependence-Independence and the Specialisation of Defences

Witkin postulated a relationship between Fd-Fdi and the specialisation of defences. The following represents the work leading up to the derivation of this postulate. The first impetus for this postulate came from an early study by Witkin (100) using psychiatric patients. In this early study a certain tendency for Fd-Fdi scores to cluster

.../according

according to diagnostic categories was found although this was not a very definite tendency. However the tendency for e.g. field dependence to be associated with alcoholism and field independence to be associated with paranoia found in this study was subsequently confirmed by other investigators (50, 51). Further studies found additional relationships between Fd-Fdi and diagnostic categories. Field dependence was found to be related to hysteria and psychosomatic disorders (26) while field independence was found to be related to obsessive compulsive disorders (73).

However as in Witkin's original study (100) Fd-Fdi has not always been found to be related to major nosological categories (77, 79). Certain studies have for example found the whole range of Fd-Fdi scores among schizophrenics (77, 78). Nevertheless on closer analysis a clustering within this major nosological category was found. Schizophrenics who were hallucinated were found to be markedly field dependent as opposed to schizophrenics who were deluded who were found to be markedly field independent. Thus Witkin concluded on the basis of findings such as these that cognitive styles related more to

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