

them still further and questioned not only the correlations between Fd-Fdi and personality variables but also the correlations between the various measures of Fd-Fdi themselves. Furthermore, the questions raised by Gruen concerning the validity of Witkin's correlations between the various Fd-Fdi measures have also been raised by other writers and it may now be of value to examine these correlations and questions.

5 An Examination of the Correlations between
Field Dependence-Independence Measures

Witkin (1960, p. 67, 85) quoted the following inter-correlations among his Fd-Fdi measures.

TABLE III

Witkin's Original Inter Test Correlations

	EFT	DAP	BAT
RFT	.21(.64)	.68(.72)	.52(.64)
B-T	.51(.60)	.65(.77)	

Key: Unbracketed correlations: Correlations for female subjects;
Bracketed correlations: Correlations for male subjects.

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As can be seen from the following however, somewhat lower correlations than the above ones have been found by subsequent authors who have for example correlated the RFT and EFT for male subjects. While Witkin found a correlation of .64, Adevai and Silverman (1) found a correlation of .49, Rudi and Stagner (83) found a correlation of .55 and Dubois and Cohen (19) found a correlation of .56. Similarly in the present study, where female subjects were used correlations lower than those reported by Witkin were found. The correlations found in the present study are presented below.

TABLE IV

Fd-Fdi Inter Test Correlations found in the Present Study

	<u>BAT</u>	<u>DAT</u>
RFT	.49	.49
DAT		.30
DAT	(Interjudge correlation) .65	

Thus it can be seen that Gruen's (42) questions concerning Witkin's correlations between Fd-Fdi measures were justified. However despite the

.../fact

fact that Witkin's original correlations seem to be inflated nevertheless subsequent correlations have still been in the expected direction and therefore Witkin's theory cannot be declared invalid on the basis of the inflation of his $Fd-Fdi$ inter test correlations. Nevertheless, a re-assessment of his theory and its implications does become necessary. Before doing this, however, it might be of value to recapitulate the criticisms which relate to the present study and which have been levied against Witkin's theory to date.

6

Recapitulation of the Criticisms of Witkin's Work

- (i) Taylor (51) has pointed to the fact that in $Fd-Fdi$ studies the sex composition of the sample is a vital factor determining results. He pointed to examples in which sex differences across samples resulted in a reversal of the correlations found between $Fd-Fdi$ and various personality measures. This factor is important when one considers the discrepancy in the results of this study and that of Minard. However this factor of sex

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differences is even more important when the value of the Fd-Fdi concept as an explanatory one is assessed because it detracts from the possibility of using Fd-Fdi as a unitary explanatory concept underlying all human functioning.

- (ii) Gruen (42) has pointed out that the correlations found by Witkin between his Fd-Fdi measures are inflated. Similarly Adevai and Silverman (1) have also criticised the Fd-Fdi measures per se and have pointed out that they are factorially impure especially the EPT. This criticism of Witkin's work is relevant to the present study but in the present study the correlations between the Fd-Fdi measures were independently checked and the EPT was not used at all, thus reducing the impact of this criticism.
- (iii) A final criticism which has been levied against Witkin's work and which has most relevance to the present study concerns

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itself with Witkin's interpretation of his results. Zigler (197) criticised Witkin's interpretation of the correlations between Fd-Fdi and personality measures in terms of decontextualisation. He explained Witkin's correlations in terms of the relationship the Fd-Fdi and personality measures had in common with intelligence. This view of Zigler ties in with the present study which found a higher correlation between Fd-Fdi and the cognitively loaded selective memory task than between Fd-Fdi and perceptual defence. It also ties in with the fact that Minard who used a cognitively loaded experimental design found a positive relation between Fd-Fdi and perceptual defence while the present study did not.

In conclusion then it appears that Witkin's use of the Fd-Fdi concept as an explanatory principle underlying human functioning can be questioned both from an experimental and a theoretical viewpoint. However, it should not be assumed that because the Fd-Fdi construct fails to be an encompassing explanatory concept that it is without

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any value. Similarly, although Witkin's Fd-Fdi inter test correlations are inflated they still have some validity as other workers have also found positive correlations. Thus although the Fd-Fdi concept is not an adequate explanatory principle of all human functioning it still has value and its more limited scope of depicting a single aspect of the way in which people perceive and react to the environment. Writers who have considered the value of the Fd-Fdi concept in its more limited scope include Vernon (97) and Gardener (33).

7

The Work of Vernon with Reference to Field Dependence-Independence

According to Vernon (97) Fd-Fdi attempts to incorporate too wide a range of perceptual characteristics and personality qualities within a single dichotomous classification. Vernon sees Fd-Fdi as only one aspect of the manner in which people perceive and react to the environment. Gardener (33) is in agreement with Vernon and in fact he included Fd-Fdi as one dimension in the broader principle of cognitive control which he developed. The cognitive control principle included many dimensions of which

.../Fd-Fdi

Fd-Fdi was only one. The other dimensions included, e.g. extensiveness of scanning and levelling versus sharpening.

Gardener (34) saw Fd-Fdi as similar to selectiveness of attention, i.e. the capacity to direct attention to the significant features of the field and to disregard the irrelevant aspects. Extensiveness of scanning operates independently of selectiveness of attention and refers to the tendency either to deploy attention over a wide field or to concentrate it narrowly on a small area. Sharpening and levelling on the other hand refer to the tendency in successive reproductions of material to diverge from originals by either accentuating differences or by reducing them towards symmetry.

Having established these cognitive control dimensions, Gardener (33) and Klein (53) then tried to relate these dimensions to various aspects of personality. Extensiveness of scanning for example was found to be related to Freudian defences as measured by the Rorschach. Extensive scanning was found to be related to projection and isolation while narrow scanning

was found to be related to repression. Extensiveness of scanning was also found to be related to adequacy of reality testing, delayed response and good impulse control.

Thus the work of Gardener (33) is in many ways similar to that of Witkin but his conceptual system is much broader. Neither should it be thought that Witkin was the first person to attempt to relate perceptual modes to personality. Thurstone (54) carried out very extensive investigations on differences in perceptual abilities in a variety of perceptual situations and administered 40 different perceptual tests to 170 subjects and then subjected his results to a factor analysis. From this, two main factors were extracted. The first factor referred to the ability to perceive closure rapidly and strongly and to maintain it during distraction. The second factor referred to the ability to manipulate configurations flexibly and to pass easily from one configuration to another. Pemberton (75) then related these perceptual dimensions to personality qualities. He showed that individuals with a strong tendency towards closure were on the whole outwardly and socially oriented, were uninterested in

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analysing situations and did not theorise about them. Similarly he showed that individuals who demonstrated flexibility in manipulating configurations were detached from the environment, lacked sociability and possessed a tendency towards abstract analysis.

From the above then, it becomes clear that the relationships between personality qualities and modes of perceiving are more subtle and varied than can be defined by a single dichotomous typology. At present therefore, hypotheses as to consistency in an individual's mode of perception must remain highly speculative because the area requires much more extensive and more controlled work than has been done up to the present date.

However, an important factor to remember in work of this nature is that although perceptions may be partially selective, this selection cannot vary with individual disposition to more than a minor extent if it is to perform its essential functions efficiently. Veridical perception of the environment is essential for the maintenance of life in a constantly varying environment.

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It is for these reasons that Vernon (97) maintains that the influence of individual motivational and personality qualities on perception may be inconsiderable except in highly restricted circumstances. Vernon believes that the main effects of individual personality and motivational factors are indirect. He sees these factors as operating through the varied acquisition of particular knowledge and skills by different individuals. He believes that individual motivational and personality variables act indirectly to modify or even initiate the organisation of cognitive schemata which direct selective attention, discrimination, identification and reaction along different lines. This is done, however, without impairing the veridical perception of the environment. Vernon therefore advocates further investigations into the nature and mode of operation of these schematic organisations.

Final Conclusion

The results of the present study indicated that Pd-Fdi was not related to perceptual defence or selective memory. Thus it was concluded that Pd-Fdi was not related to the

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ability to keep thought, percept and affect separate.

These results were not in line with Witkin's predictions and some explanation for this was therefore sought. A careful analysis of Witkin's work leading up to the derivation of the separation hypothesis revealed several faults in Witkin's logic and work.

Gruen (43) demonstrated that Witkin's original inter test correlations were inflated and questioned the statistical techniques used by him. Zigler on the other hand criticised Witkin's interpretation of his results in terms of Pd-Fdi (107). Zigler postulated that the correlations found between Pd-Fdi and personality variables were due to the common relationship these variables have with intelligence and the results of the present study support this postulate.

Vernon, however, sees the main fault in Witkin's work to be the endeavour to incorporate too wide a range of perceptual and personality characteristics within a single dichotomous classification (97). However, he sees the Pd-Fdi concept as having validity if it is applied in a more limited way as in the work of Gardener where Pd-Fdi is seen as only one dimension of perceptual functioning (33). The present writer is in accordance

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with this view and thus it might be stated in conclusion that the concept of P_d-P_{di} is a valid one only if it is considered to be one dimension of perceptual functioning and not if it is considered to be the explanatory principle underlying all human behaviour as Witkin originally advocated.

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