CHAPTER - I
INTRODUCTION

In recent years there has been a growing realization among psychologists that creativity is a potential field of research, testimony to which is borne out by the voluminous literature, now available, on the subject. The sudden spurt in creativity studies seems to be an outcome of the two major world trends, namely, (1) need for harnessing the natural resources through best of the human resources (creative persons) in diverse areas of human activity, such as medicine, engineering, agriculture etc., and (2) need to develop an aesthetic climate through creative products, such as art, sculpture, painting, music, poetry and the like to counteract the stresses and strains of the effects of highly complex modern technology.

Creativity is too flexible a phenomenon to be easily defined. Scientific investigations in the area were hindered for long for reasons of attaching different meanings to the term by different workers.

For centuries, creativity was conceived as a divine gift, as intuitive genius, as a life force and as a cosmic force, whereby the creator was supposedly divinely inspired. In this view, creativity springs from inspiration rather than education and explains
the lack of interest in understanding the extra-ordinary originality of rare and genuinely creative works. Another tradition dating back to antiquity conceives creativity naturalistically as a form of madness. Its seeming spontaneity and irrationality are explained as outcomes of fits of insanity. Consequently, high creative person is branded as pathological. This tradition led to the neglect of mental pathology as the likely approach to interpret creativity by scientific investigators. With Darwin's theory of evolution, creativity was considered as a hereditary blessing leaving little incentive to attempt to understand it.

A survey of research literature in the area of creative thinking makes it clear that although sporadic reports can be found on the topic dated as early as 1898, sustained efforts by numerous research workers are of quite recent origin (Torrance, 1962). Primarily, because of the general interest in individual differences creativity became an object of scientific study. It is conceived that creativity has a psychological continuum and that individuals may be placed at different points on it according to varying degrees of the trait possessed by them ( Guilford, 1950 & 1962). This conception of
creativity led to the adoption of several approaches to understand it, whereby there was no need to study either the rare person or the pathological case having creative spark or a person blessed with divine gift. On the other hand, a multitude of subjects is now available to investigators and such openings have been utilized by them to probe into numerous aspects of the phenomenon called 'creativity'.

It has frequently been proposed that creativity is a distinct aspect of intellectual functioning which is for all practical purposes independent of conventional intelligence. Guilford (1950), Guilford and Herrifield (1960), Oetzels and Jackson (1962), and Torrance (1968a) subscribe to this point of view. The distinguishing feature between creativity and conventional intelligence can be understood in the light of the fact that the former essentially involves the capacity to invent and innovate whereas the latter requires rather the reproduction of the already learnt material (Guilford, 1950). Studies conducted by Ghiselin (1958), McGuire et al. (1961), Sultan (1962), Anderson (1964) and Cropley (1965 & 1966) have lent support to the notion that creativity tests define some new dimension of intellectual functioning. On the other hand, Burt (1962 & 1964) argues that creative production may chiefly be attributed to the operation
of general ability, and McNemar (1964) suggests that
conventional intelligence adequately accounts for the
kind of behaviour with which creativity theorists are
concerned. This position has been supported by many
studies reporting significant correlations between
measures of creativity tests and intelligence tests
(Keats and Emiralis, 1962; Lovell and Shields, 1967;
and Ginsberg and Whittmore, 1968). Finally, Taylor
(1964), Vernon (1964) and Yamamoto (1965) suggest that
creativity and intelligence may become independent only
after some critical IQ level has been exceeded. It
implies that intelligence may be a necessary but not a
sufficient condition for creativity.

Considering creativity as a distinct mode
elicited by divergent thinking tests, and general
intelligence as another intellective mode elicited by
convergent thinking tests, it can be argued that despite
the fact that creativity and intelligence are two
distinguishable intellective modes yet both of them
operate within the same intellectual functioning. Since
both creativity and intelligence represent two dis-
tinguishable modes of the same intellectual functioning,
it can, further, be formulated that there is a possibility
of substantial overlap between the two modes as measured
by creativity tests and intelligence tests, accounting
thereby a possibility for coming across a general factor of intellectual functioning.

Some of the significant correlations between creativity and intelligence as reported by different authors seem to substantiate the possibility of coming across a general factor of intellect though referred to in a different context.

Nevertheless, both the approaches — one measuring creativity as a distinct aspect of the intellectual functioning and the other favouring creativity as accountable by conventional intelligence, seem to concur to the extent to which the possibility of obtaining a general factor of intellect is visualized. The validation of the argument depends on obtaining such factor along with group factors of creativity and intelligence separately. It would further lead to obtaining certain intellectual correlates (mainly related to intelligence in the present study) of creativity.

It is obvious from the foregoing discussion that some psychologists often think of creativity as a single dimension or as a unified cluster of traits resembling and to some extent overlapping general intellectual ability. There are others who argue that creative behaviour depends as much upon cognitive power as on personality. Barron (1955), Drevdahl and Cattell
(1958) Couch and Keniston (1960), McGuire et al. (1961), and Anderson and Cropley (1966) consider that this distinct aspect of intellectual functioning, that is creativity, is related to certain personality traits. Likewise Vinsack (1952), Bloom (1963), and Guilford (1967) also stress that personality variables are at least as important as intellectual characteristics of creative behaviour.

It is commonly thought that personality characteristics tend to be associated with a medium of expression rather than with the level of expression. It means that the maker of creative products is acknowledged as a different individual from others. It further leads to the question, whether the difference is linked to a mode of expression, a way of life, or stylistic qualities of the product themselves. Each view implies a position of the nature of the creator.

Basic to the notion that the creatives possess unique personality characteristics, it may be assumed that there are different kinds of creativity and that creative persons in one field are in many ways different from creative persons in other areas as also from other persons in the general population. Considerable research efforts have been directed in identifying the personality characteristics of different types of creative persons.
For instance, some of the prominent studies by Roe (1946a, 1946b, 1951a, 1951b, 1958), Cattell (1954, 1963), Cattell and Drevdahl (1953), Mackinnon (1963a, 1963b, 1965, 1967, 1970), Barron (1955) and by many more reveal, though not very consistently, that certain personality characteristics get associated with specific group of creative persons such as artists, scientists, architects, and the like.

It may perhaps not be possible to suggest or investigate that certain personal qualities cause a typical creative product, yet it may be possible to identify the personal qualities of creative persons. Within the present context, it is thought that there is a set of personal qualities that characterizes the creative person thus accounting for personality correlates.

There may be yet another consideration that creativity perhaps cannot be understood by merely relying upon singular intellectual traits without rooting personality variables in theoretical concepts. Although certain cognitive characteristics are essential, it may be argued in agreement with Golann (1963) and Dellas and Gaier (1970) that any attempt to understand creativity without referring to the personological context would be futile. This stand needs to be validated.
Thus, the following basic issues emanate out of the controversies regarding the nature of creativity as related to intellective domain and personality.

1. Whether creativity and intelligence are two distinguishable modes of the same intellectual functioning.
2. Whether creativity and intelligence are overlapping modes of the same intellectual functioning.
3. Whether creative behaviour can be explained in relation to specific constellation of certain personality characteristics that go with it.
4. Whether creativity can be understood within the cognito-personological context.

The present investigation entitled "INTELLECTUAL AND PERSONALITY CORRELATES OF CREATIVITY" has been addressed to the issues raised above.

NEED FOR STUDYING CREATIVITY

Ever since researchers evinced interest in the pursuit of exploring the field of creativity, it was realized all the more that concerted efforts need be made in this direction for several reasons.
Basically, fundamental research is as important to creativity as to any other field for extending its frontier of knowledge. Since the research on creativity is mostly deficient in the absence of replicated studies, follow up investigations, conceptual and semantic agreement, adequacy of samples, precision of measuring tools, unanimity about the problems of criteria and predictors, and longitudinal studies, the construct of creativity is yet in a flux and needs to be refined through persistent efforts. Just for the academic interest therefore, there is a need to enrich the subject matter of creativity. Besides, the importance of creativity in the modern age itself is contributory to accelerating the pace of research activity. Taylor (1964) rightly remarks that: "Creativity at its highest level has probably been as important as any human quality in changing history and in reshaping the world."

Creative acts enormously affect scientific progress and commercial life of nations. Many of our present means of travel, communication, and production can be traced back to creative thinking. It is expected that nations which become conscious of identifying, developing and
encouraging creative potential in their people may find themselves in very advantageous position. Thus from a more complete knowledge of man, can stem a balanced world society.

It may not be possible for nations to depend upon sheer quantity of man-power as the complex society of tomorrow would need high quality personnel, specially creative persons to deal with the vital problems. Conant (1959) supports this point of view and says that ten second-rate men are no substitute for one first-rate man. His comment is justified, for all great inventions and discoveries are fruit of creative thinking made by creative persons.

Man's quest to improve his knowledge, to unravel the hidden mysteries of the unknown, and to create new ideas, has enabled him to change the internal dynamism of society. It is fallacious to argue that societies change according to human plans, rather it is the creativity which accounts for such changes by way of man's degree of enlightenment in certain fields as well as his vast production of material goods through creative performance. Not only that, creativity also serves to strengthen one's motives to preserve the results of man's constructive energies. According to Barron (1969), the role of creativity in the whole process of socialization is critical. A creative person has sense to respect a spark of creativity
Creativity, thus, accounts for the process of socialization, internal dynamism of society, and social change without disrupting social cohesiveness.

Creativity has its implications for education as well. The goal of education in terms of increased capabilities, personal expression, greater inventiveness, and blossoming of gifted leaders perhaps, cannot be fully realized in the absence of adequate and accurate knowledge of creativity. The creative thinking abilities contribute importantly to the acquisition of information, and various educational skills (Getzels and Jackson, 1958; Torrance, 1960).

Experiments by Moore (1961) and Ornstein (1961) demonstrate that apparently many things can be learned more economically than they can be by authority and that some people prefer to learn creatively. The study by Getzels and Jackson (1962) reveals that even in the present time there is a tendency to prefer high IQ students and that nearly seventy percent creative students are missed by selecting top twenty percent students on the basis of IQ. The cultivation of creative potentiality so far has, however, been largely neglected by education (Flescher, 1963). Torrance (1962), too has recognized the importance of guiding the growth of creative thinking abilities among children for the reasons of ensuring their mental health, fully functioning personalities,
educational achievement, vocational success, social importance and for providing different guidance roles.

The need to understand creativity in greater details seems to be substantiated further in the light of the comments made by several authors emphasizing its importance in one form or the other. Bruner (1962) argues that man's creative faculties restore his dignity in computer dominated age, Tynbee (1962) considers human creativity as mankind's greatest asset, and Getzels and Jackson (1962) regard it as one of the most highly valued qualities. To Maefele (1958) creative activity at the highest level is the greatest of all human ecstasies and often brings moments of high personal drama. Considering creativity as one's most valuable resource, Patrick (1955) is of the view that it can cope with life's daily stresses and stifling of it cuts at the very roots of satisfaction in living and ultimately creates overwhelming tensions and breakdowns.

In view of the importance of creativity in all walks of life, there is a need to explore the field more scientifically and with greater rigor. Despite the increase in recent research, relatively little is yet known and much basic research on creativity is needed.

In India, some attempts have been made in this direction, but except a few studies, majority of them are
amateurish in character and do not come up to the
required standards of scientific rigor' (Raina, 1971).
A thorough investigation, therefore, is needed in this
field so as to make the best use of creative talent
which is of crucial importance for any developing country.

The present study is one such attempt which is
addressed to certain basic questions pertaining to the
nature of creativity in the intellectual, personological,
and cognito-personological contexts. In general, what
can be claimed for the need to study creativity, holds
equally true for this study as well. A case has already
been put forward earlier in this chapter to undertake the
investigation in hand, which reflects the need to study
the problem. In brief, the factorial approach employed
to study the intellectual and personality correlates, it
is hoped, would enable a stable picture of creativity to
emerge. It may further be helpful in identifying
correlates of creativity which may be utilized for
harnessing the creative potential of the creatives
adequately.

ORGANIZATION OF CHAPTERS IN THE REPORT

Having presented the rationale for the present study
and the need for studying creativity in the introductory
chapter, theoretical views of creativity have been given in
Chapter II. Review of research literature along with
related hypotheses find their place in Chapter III. The next two chapters (Chapters IV and V) deal with method and procedure, and description of data respectively. Identification of intellectual correlates of creativity, personality correlates of creativity, and creativity as related to cognito-personological dimension have been given in Chapters VI, VII, and VIII respectively, wherein attempts have been made to present analysis of data and discussion of results simultaneously so as to furnish a global picture of different types of enquiries in separate chapters.

In Chapter IX, developmental trends of creativity have been located. The last chapter X contains summary and conclusions of the study. Bibliography and appendices find their place at the end of the research report as usual.