COMPARISONS BETWEEN AN ANCIENT INSTRUMENT AND MODERN
INSTRUMENTS FOR ASSESSING PERSONALITY: A PILOT STUDY

A Dissertation

Presented to

The Faculty of the Department of Psychology

University of Houston

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

By

Rade R. Jenkins

December, 1974

ACKNOWLEDGEMENTS

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ABSTRACT

        Forty-nine college level subjects were selected from a subject

pool of over 200 respondents to an advertisement requesting volunteers,

age 23 years or older, for an experiment on astrology and personality.

The subjects were selected on the basis of the aspects among planets

in their natal horoscope to form 2 groups. Group A (n = 24) had a

minimum of a 2:1 ratio of harmonious aspects to discordant aspects,

and Group B (n = 25) had a maximum of a 1:1 ratio of harmonious

aspects to discordant aspects. The groups were compared on the Minnesota

Multiphasic Personality Inventory (MMPI), the 16 Personality Factor

questionnaire (16PF) and the Eysenck Personality Inventory (EPI).

        A multivariate analysis of variance indicated the groups were dif-

ferent on the MMPI, but not on the 16PF. The differences were greater

for females than for males. Analysis of the separate scales suggested

that Group A was less conventional, less rigid, more experimenting and

more worrying than Group B. A special analysis of particular sub-groups,

formed by their common adherences on different scales, was provided and

presented in graph form to serve as a set of guides for future research.

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CHAPTER I

INTRODUCTION AND STATEMENT OF PROBLEM

The popularity of astrology in the United States is astounding.
Newspapers routinely publish daily horoscope guides; magazines include
monthly guides; and bookstores abound with astrological material. Most
citizens are aware of their "sun sign." Scientists who would previously
have dismissed it out of hand are now expressing at least intellectual
interest. Even more astounding is the fact that psychologists have
largely avoided astrology as a phenomenon for investigation or around
which legitimate investigation could be constructed e.g. personality
patterns of persons deeply committed to the art of astrology. Pre-
sumably, this situation is a remnant of the need for academic psychology
to extricate itself from necromancy en route to respectability within
the scientific community. Nevertheless, astrology, simply by virtue
of its permeation into the American consciousness, is a phenomenum
suited to psychological research. As an aside, it is curious to note
that both workers in psychology and astrology are intensely concerned
with their propriety, and both are sensitive to cirticism re methodology,
theoretical assumptions, validity and competency.

Astrology holds a unique potential interest for psychologists. It
has become largely popularized via its volumes on human personality.

Its technique of factoring out subtly different personality character-
istics is reminiscenc of some psychological theories of personality,
e.g., Cattell, and, in fact, reads like a trait theory of personality.
Each of ten heavenly bodies is associated with a peculiar and distinct
psychological manifestation, as are the 12 zodiacal signs, and in the
horoscope chart, the 12 houses or divisions. These factors alone can
combine in 1,440 ways with loadings on particular factors frequently
occurring. If this does not seem sufficiently complex to account for
the subtleties of human personality, one need only consider that the
geometric angles formed by the heavenly bodies among themselves, rela-
tive to the earth, are also calculated, and several well-defined ones
are significant in interpreting the precise manner in which the various
distinct psychological manifestations interact. So in one sense, it
might provide a useful model for comparison with personality theories,
possibly with heuristic value along these lines. Since astrology is
probably the earliest comprehensive, sophisticated study of personality
factors, it is rather an odd quirk that useful qualities have been
overlooked and that conventional researchers have preferred to ridicule
its premise that personality can be assessed by knowing the time and
place of birth. It epitomizes the fear of unconventional approaches
which can lead to throwing the baby out with the bath water.

Investigating astrology with the instruments of psychology poses a
number of problems. First, astrology is an intricate, complex system of
techniques, beliefs and laws. Second, psychology is an intricate, complex,
system of techniques, beliefs and laws. How does one select for comparison
among all the possible combinations, factors of each which would produce

intellectual stimulation and satisfaction and which could be shared with interested researchers in psychology? Most psychologists are naive about astrology, making for a communication problem. This means that the astrological factors chosen would have to embody characteristics which would favor a ready conceptualization by experimentally sophisticated persons unfamiliar with the language of astrology. One then must decide whether to design a study which utilizes the premise that knowing time and place of a person's birth can yield useful information about his personality. This premise usually elicits the strongest emotional response from persons who, totally without data to support their view, feel this assumption is untenable. Still, utilization of this premise incurs the risk of a prior judgement as to the validity of data which might be generated, thus including a barrier to communication. Basically, including this premise implies acceptance, for research purposes, of its plausibility. Using the extent of their widespread use as a barometer, one concludes that psychologists have faith in the validity and discriminability of personality tests, whether of a projective or inventory nature. Astrologers have faith in the information yielded by natal, progressed and transited horoscopes. Since personality is their common domain, if one chose to begin an investigation of the syncronicity of astrological data with psychological data, the use of personality tests seems an abvious pick. However, this choice still includes the problem of translation from the language of psychology to that of astrology and vice versa, meaning that prediction from one set of instruments to another would be difficult since if any reliable overlap should exist, the area could be known only ex post facto. This problem would

even where labels appear to be interchangeable. Silverman and Whitmer

(1974) conducted a study in which they compared subjects' self-ratings

and subjects' friends' ratings of them with judges' ratings on 5 per-

sonality characteristics. The judges' ratings were based on astrolog-

ical factors, namely the zodiacal sign of the sun, moon and ascendant in

the subjects' natal horoscopes. The astrological factors had previously

been given ratings on a 5 point scale for the 5 personality character-

istics based on the judges' notions as to the extent each personality

characteristic was stressed for each of the 12 zodiacal signs by con-

temporary astrological texts. The example Silverman and Whitmer (1974)

give is, "If a subject's sun was in Sagittarius, his moon in Aries, and

if Pisces was his ascending sign, the predictions would be that he was

average in extroversion $\underline{/}(3 + 5 + 1)/3 = 3.0\underline{0}7$, . . ."[1] The numbers in

parentheses refer to a rating of 3 for sun in Sagittarius, 5 for moon in

Aries and 1 for Pisces ascending, the sum divided by 3, yielding an

average rating of 3. This procedure was done for each of 5 character-

istics on each subject with the result that these 4 astrological ratings

(including the combined rating) could then be correlated with friends'

ratings of subjects and subjects' self-ratings. However, Silverman and

Whitmer (1974) themselves noted the pitfalls of their technique, pointing

out that the signs' meanings could have been misinterpreted by the judges.

An additional problem, which Silverman and Whitmer (1974) also note is

that of social desirability (Edwards, 1957) affecting the results of

self-rating scales. This is particularly relevant for socially-aware

college students on scales of a simple, obvious nature. Silverman and

Whitmer (1974) attempted to control for this factor by having subjects

choose friends to rate them also; however, the problem still remains
since the extent to which the subjects' friends responded to the items
based on their social desirability is unknown. Had Silverman and
Whitmer (1974) conducted a purely investigative study, rather than
setting up a priori hypotheses, their data may have been more interesting.

Another problem, beyond translation, is error variance inherent
in the nature of the personality tests and the error variance inherent
in horoscopes when one is using a multiple subject design. It is impera-
tive that the variance in the final subject pool be reduced as much
as possible regarding astrological factors to help compensate for the
other problems, such as translation. This task, while conceptually
simple, is enormously complex logistically. To explain this complexity,
it is necessary to explain both the basic techniques of astrology and
basic astrological theory of the development of personality. This will
be done in a condensed form, although to readers new to astrology, the
following will hardly seem condensed.

The information that exact time and place of birth yields is essen-
tially that exact point in time and space relative to the components
of our solar system at which a person begins to function independent of
the womb of his mother. The exact positions of the planets, sun and
moon relative to this point and to each other are noted, as is the
precise orientation of the earth on its axis. These relationships are
symbolically described with the help of the horoscope wheel (Figure 1),
the center or hub of which is the earth. The wheel has 12 divisions
called "houses." These houses each represent a compartment of a person's
life and their individual meaning is derived from the zodiacal signs
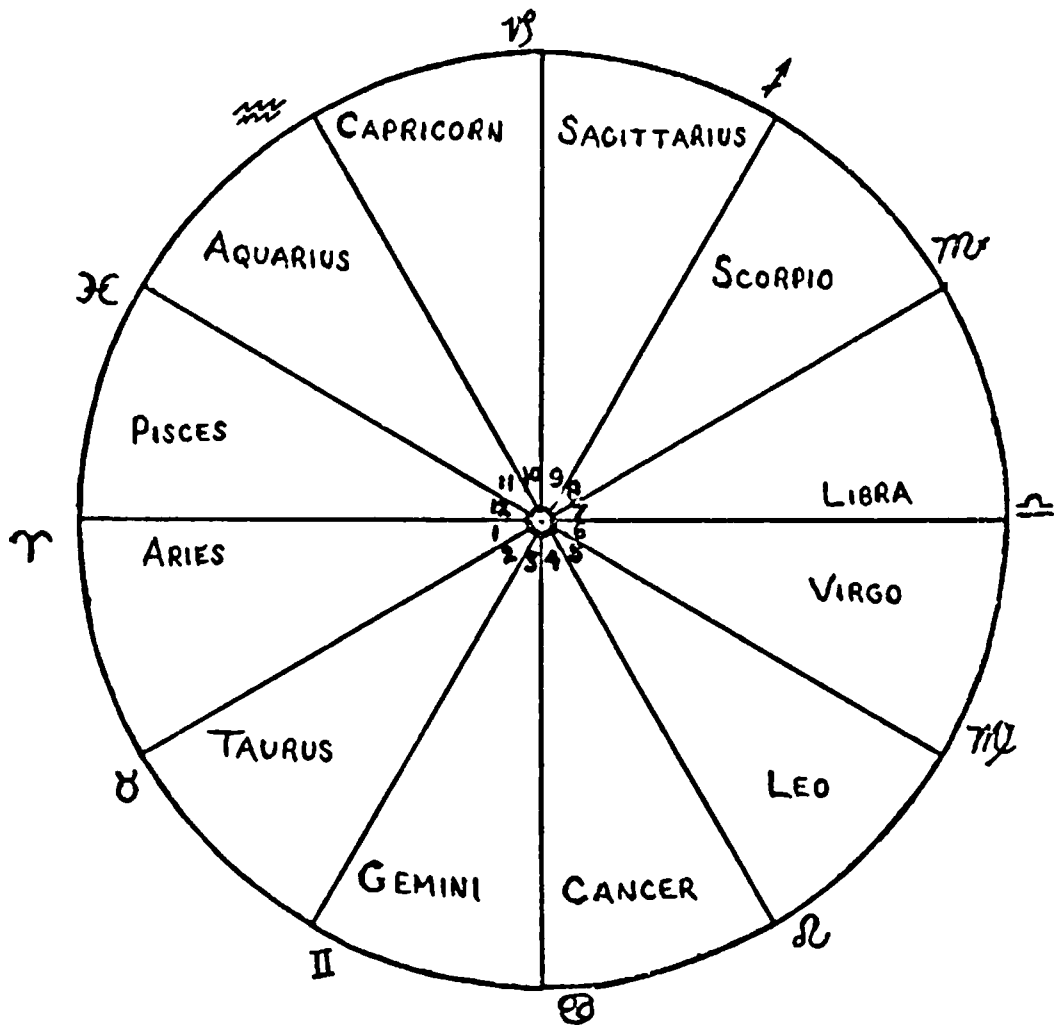
Figure 1

indicated in Figure 1. For example, the second house derives its meaning from the sign Taurus and it is said to represent possessions, worldly resources, the neck and vocal chords, bank account, etc., whereas the seventh house derives its meaning from the sign Libra and it is said to represent partnerships, shared contracts, kidneys and ovaries, sense of equality and balance, etc.

Figure 2 shows the wheel with the glyphs inserted. Each glyph signifies a planet (for convenience, the sun and moon are referred to as planets) as indicated at the bottom of the figure. Note that the planet venus is shown in both the second and seventh houses and the planet mercury is shown in the third and sixth houses. All other houses contain a glyph unique to them, and the planet associated with each glyph is said to "rule" the designated house and zodiacal sign, thus the moon "rules" both the fourth house and the sign Cancer. Essentially this means that the moon, the fourth house and the sign Cancer all represent similar characteristics, e.g., home and security, breasts and stomach, etc. The pluses and minuses alternating in order throughout the wheel represent the masculine and feminine principles, familiar to students of the I Ching as yin and yang.

Figure 3 again shows the wheel, but the glyphs have been replaced with the words fire, earth, air or water; and cardinal, mutable or fixed. These descriptions signify factors which different houses and zodiacal signs are said to share, e.g., the term "earth" is applied to the second, sixth and tenth house and Taurus, Virgo and Capricorn signifying what it implies - practical or down-to-earth. However, the second house and Taurus are fixed earth, implying a firmer, more obstinate earthiness,
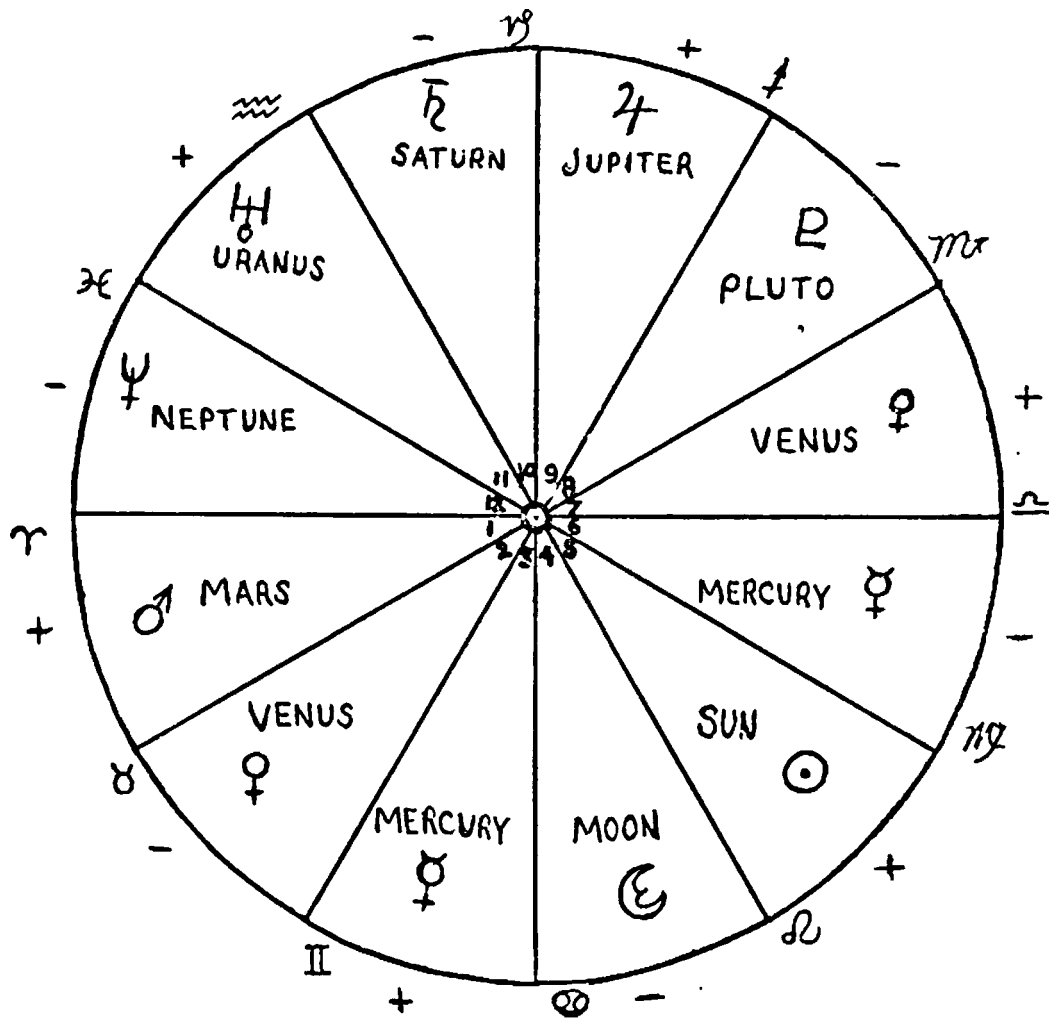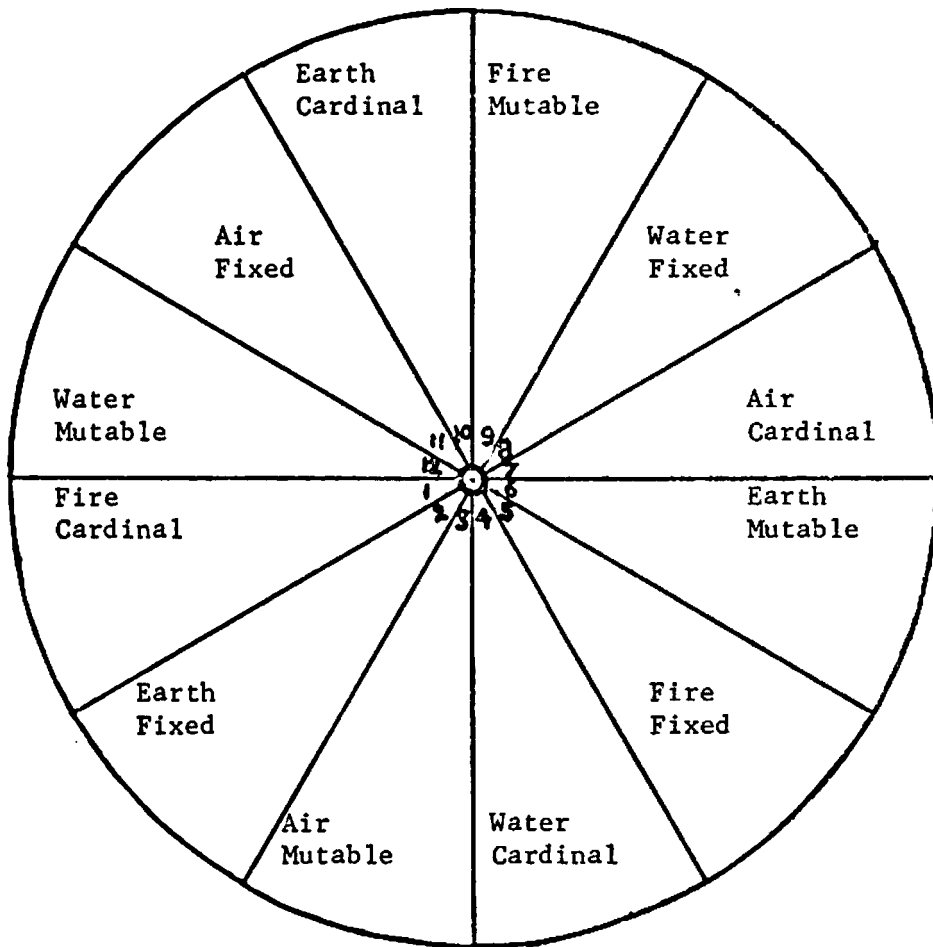
Figure 2

Figure 3

while the sixth house and Virgo are mutable earth, suggesting a more

flexible practicality and the tenth house and Capricorn are cardinal

earth, indicating a combination of drive and practicality along leader-

ship lines. Figure 4 is a combination of Figures 1, 2 and 3. One can

now begin to glimpse the multitude of associated factors which astrologers

have as raw material. Now, imagine that these factors were thrown

helter skelter like a salad, with each factor falling into contact with

other factors (and subtly changing its characteristics as a result of

the contact) to form a complex and unique matrix. Imagine that the moon

is now in the seventh house in the sign Aries and the other planets and

zodiacal signs have similarly shifted and one now learns that not only

do these shifts make for unique interactions but recalls that the

geometric angles formed among the planets are also important and that

different angles yield different interpretations. This resulting well-

organized but bewildering web is called the natal horoscope on which

astrologers base their interpretation of the personality of a single

subject. Considering the complex interactions of genetics and environ-

ment which inundate personality researchers, one is at least impressed

with the inherent complexity of astrology. Figure 7 illustrates the

natal horoscope.

Figure 5 again shows the wheel, but note that it has been rotated

so that Virgo now occupies the leading edge or "cusp" of the first

division or "house" instead of the cusp of the fifth house. The precise

time and place of birth determine how the wheel is rotated. This is

accomplished by calculating the sidereal time of birth (Index A) and

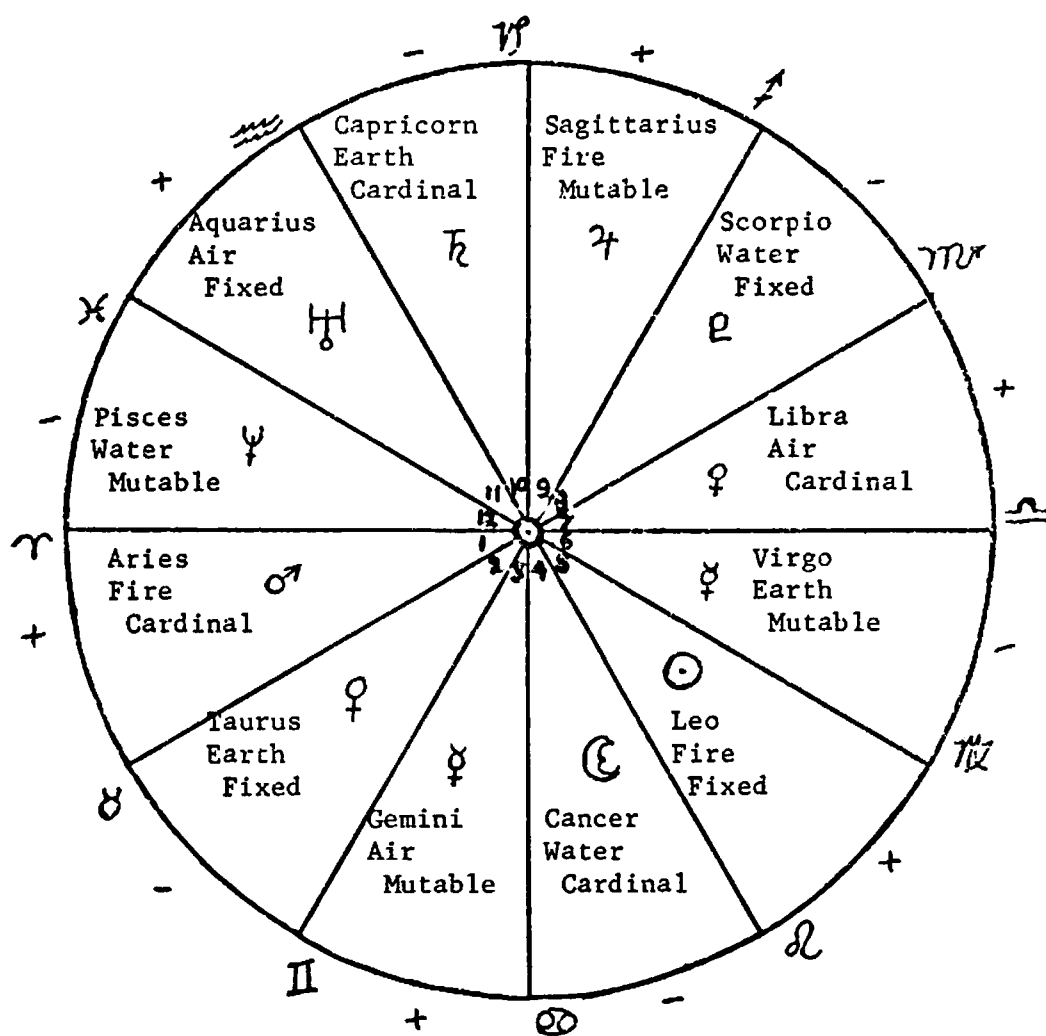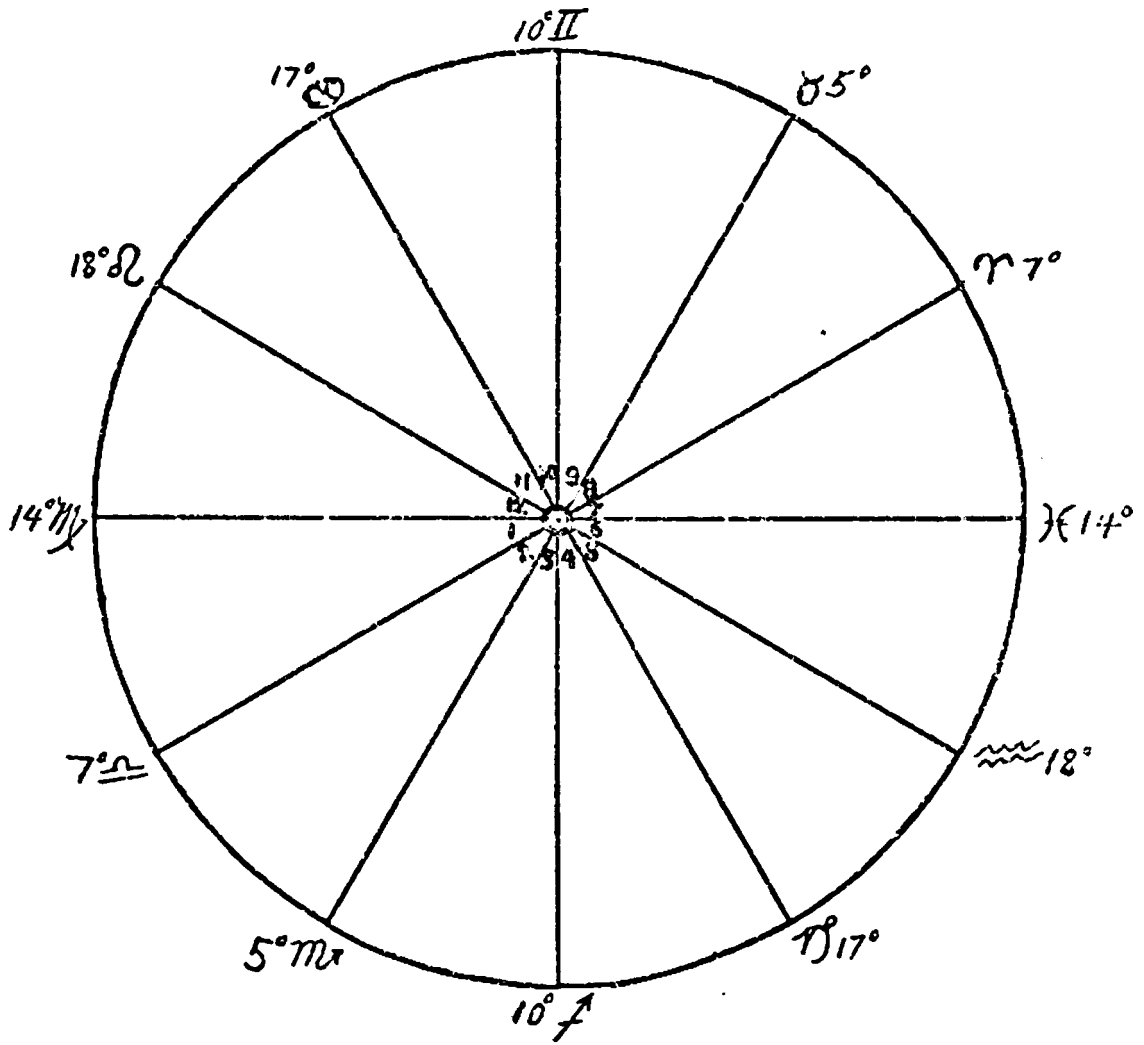referring to a book titled Tables of Houses (published by various

Figure 4

Figure 5

firms). Note also that the number of degrees is notated on the leading edge, or cusp, of each division, or house. Each zodiacal sign is said to span 30° of arc, but as one moves farther from the terrestrial equator, an apparent distortion occurs which is reflected in Figure 5 by the differences in the degree of each sign notated on each house cusp. (See Index A for a discussion of the Equal House Method in which this apparent distortion is not reflected in the chart.) The number of degrees appropriate to each house cusp are given in the Tables of Houses reference book and vary as a function of longitude, latitude and time of birth. Figure 5 also shows the ascendant (14° of Virgo) and the midheaven (10° of Gemini). These points are considered to be highly important in the interpretation of a chart and both are extremely sensitive to minor differences in birth time. For example, if the person who reported or recorded the birth time had made an error of 5 minutes, the actual time being 9:55 p.m. instead of 10:00 p.m., the ascendent would be 13° of Virgo and the other house cusps would also alter slightly. In terms of predicting events, some predictions would be thrown off over a year by this seemingly minor error.

Recall that the earth is represented by the center of the wheel (this is no implication that the planets move about the earth, only that the earth is the primary focus for the astrologer). The lines in the wheel which divide it into "houses" can be conceptualized as pro-jections from the earth into space, much as the hands of a clock project outwards from the center. The rotation of the signs shown in Figure 5 can then be understood to reflect the rotation of the earth on its axis and to be, in essence, similar to the rotation of the hands of a 23-hour,

56-minute clock, which is what it represents. One who is experienced
in reading this clock can glance at a natal horoscope and tell the
approximate birth time, including month, day and year. If one imagines
that he was in the center of the wheel, that is on the earth, and in
Vancouver, British Columbia at the moment of this birth event and also
in possession of a magic telescope and that he had aimed his telescope
at the horizon exactly at that point at which he might later expect to
view the rising sun towards the east, he would, by virtue of the
telescope's magic, see the ancient (not the current) constellation
Virgo and be able to see only the first 14 degrees, the rest of it
being out of view below the horizon. Thus, the 14th degree of Virgo
is the ascendant or rising sign, being the cut-off point at the eastern
horizon. If he then aligned his telescope so that it was perpendicular
to the eastern horizon, that is looking directly where he would later
expect the sun to reach midday, he would see the ancient constellation
Gemini and note that the 10th degree of that constellation corresponded
with the midpoint of his telescopic view. This point is called the
midheaven. The reason that the telescope would need magical qualities
is that the so-called ancient zodiac no longer exactly corresponds
with the current appearance of the zodiac due to precession of the
equinoxes. This fact presumably has little or no bearing on the
accuracy of the horoscope clock for an individual person.

Figure 6 shows the wheel with the planetary glyphs inserted for
the exact time of birth noted but without showing the earth's rotation.
It indicates the distribution of the planets by sign and degree. It
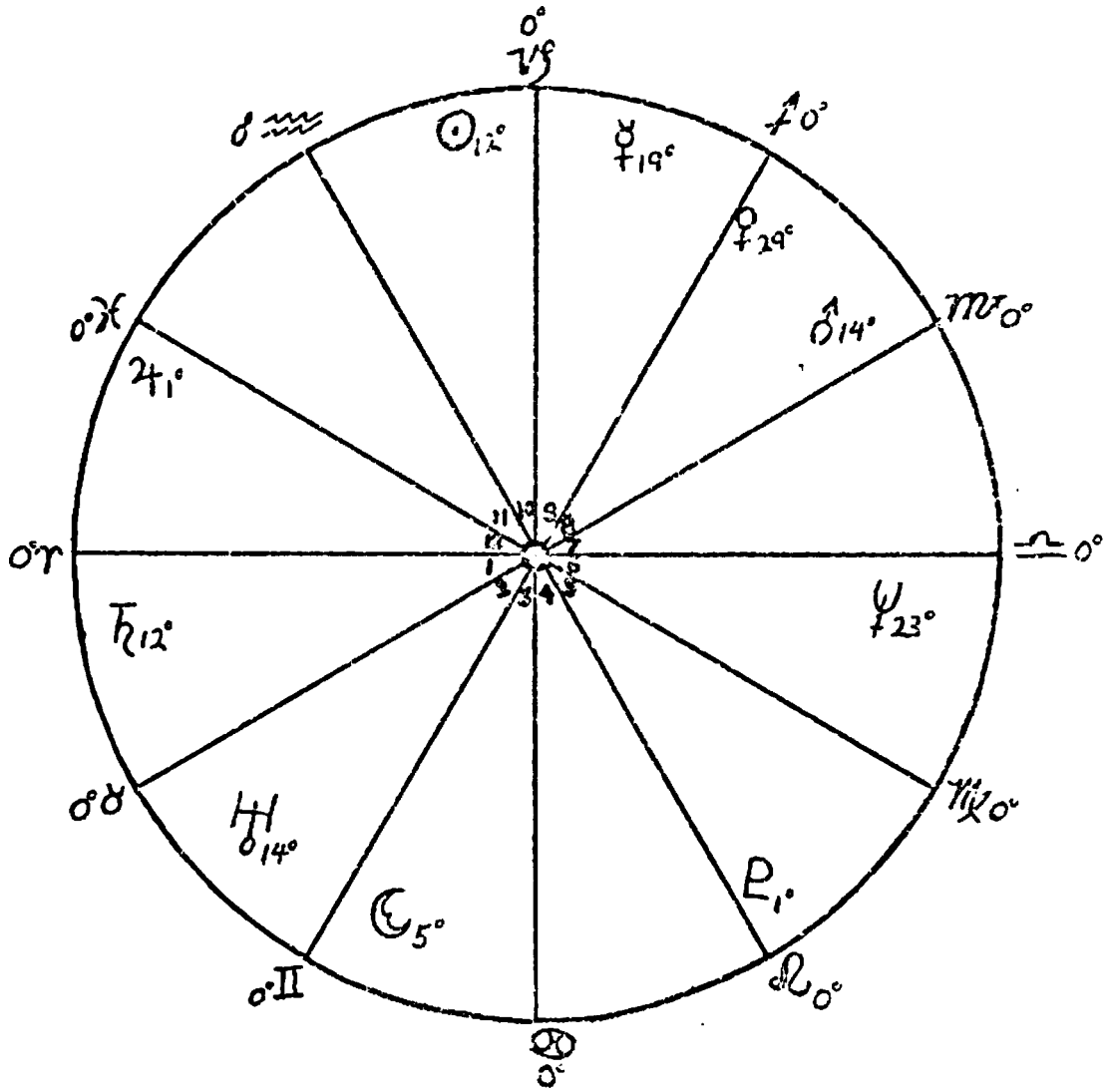can be seen that the sun is at the point of 12° Capricorn and the moon

Figure 6

at 5° Gemini. Had the person been born a day later at the same time and place, the sun would have been plotted at 13° Capricorn, whereas the moon would have been plotted at 20° of Gemini, in accordance with the respective body's apparent rate of motion in the zodiac. The exact zodiacal positions of the planets are calculated with the help of an ephemeris, a book which lists their positions for each day of the year at noon, Greenwich Mean Time (or midnight GMT). For an example, see Index A. If one were to consider interpreting personality characteristics with just the data shown in Figure 6, the complexities are obvious. The characteristics of mercury have to be synthesized with the characteristics of Sagittarius, the characteristics of the moon with the characteristics of Gemini, etc. and then an overall synthesis is required.

Figure 7 is the combination of Figures 5 and 6. This is the natal horoscope. Mercury is in the fourth house, in Sagittarius, the moon is in the ninth house, in Gemini, the ascendant is 14° Virgo, etc. All these factors and more have to be synthesized for interpretation. (Additional complications arise if one is to consider the Equal House Method as possibly having validity - see Index A.) Occasionally one encounters horoscopes which have heavy loadings on factors, such as several planets in the same house and sign, which reduces the complexity of the interpretation.

Figure 8 again shows the wheel, but this time only the sun and moon are shown, the moon in 8 different positions. The particular positions illustrated are distances in angular separation between any two planets which are considered to be highly significant in the final interpretation of an astrological chart. These angles or "aspects" can roughly be
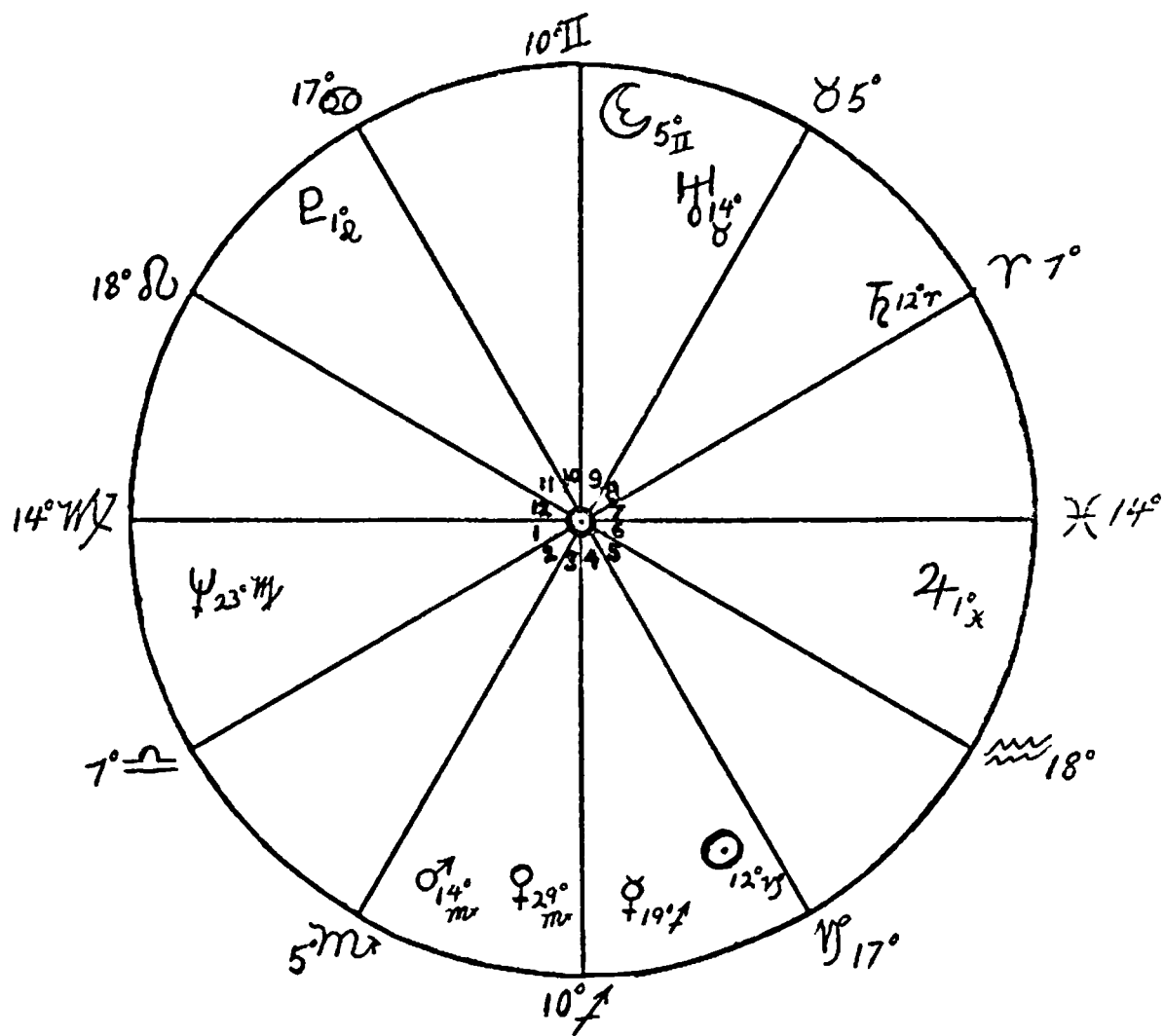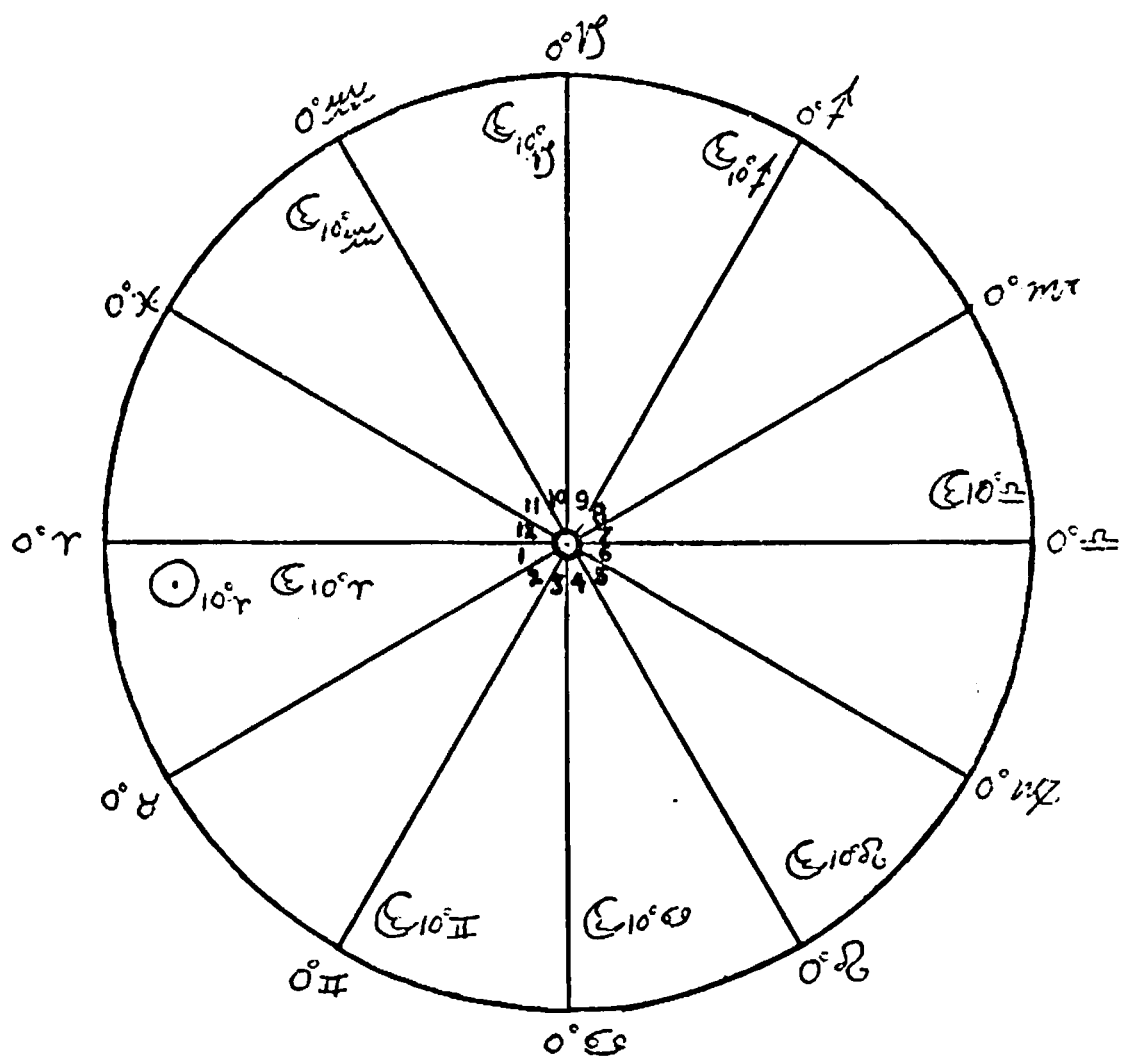
Figure 7

Figure 8

categorized as being harmonious, discordant or mixed. Figure 9 illustrates

the harmonious angles or aspects, which are 60° and 120°. There are 4

points at which these aspects can potentially occur between any two bodies

using one body as the reference point (except for the sun and mercury,

which can be a maximum of 28° apart; sun and venus, which can only

separate to a maximum of 48°; and mercury and venus, which separate a

maximum of 76°). The 60° angle is termed the "sextile." The 120° angle

is termed the "trine." Basically these angles or aspects are said to be

conducive to psychological harmony, the nature of which depends on the

planets involved, the signs the planets occupy and the house they occupy.

For example, a trine between mercury in Aries in the ninth house and

the moon in Sagittarius in the fifth house would suggest roughly that the

person was able to harmoniously combine pleasures with higher learning

and travel in a highly dynamic fashion and that he/she would find that

teaching children, perhaps as a swimming coach, very naturally gratifying

without effort.

Figure 10 illustrates the discordant angles or aspects, which are

90° and 180°. The 90° angle is called the "square" and the 180° angle

the "opposition." There are 3 points at which these aspects can occur

between two bodies (with the exceptions noted above). When two bodies

configurate in this manner, the result is said to be psychological stress,

again with the nature of the stress dependent on the planets, signs and

houses involved. For example, a square between the sun in Libra in the

eighth house and saturn in Cancer in the eleventh house would suggest

that the person chooses friends who are older or more serious than average

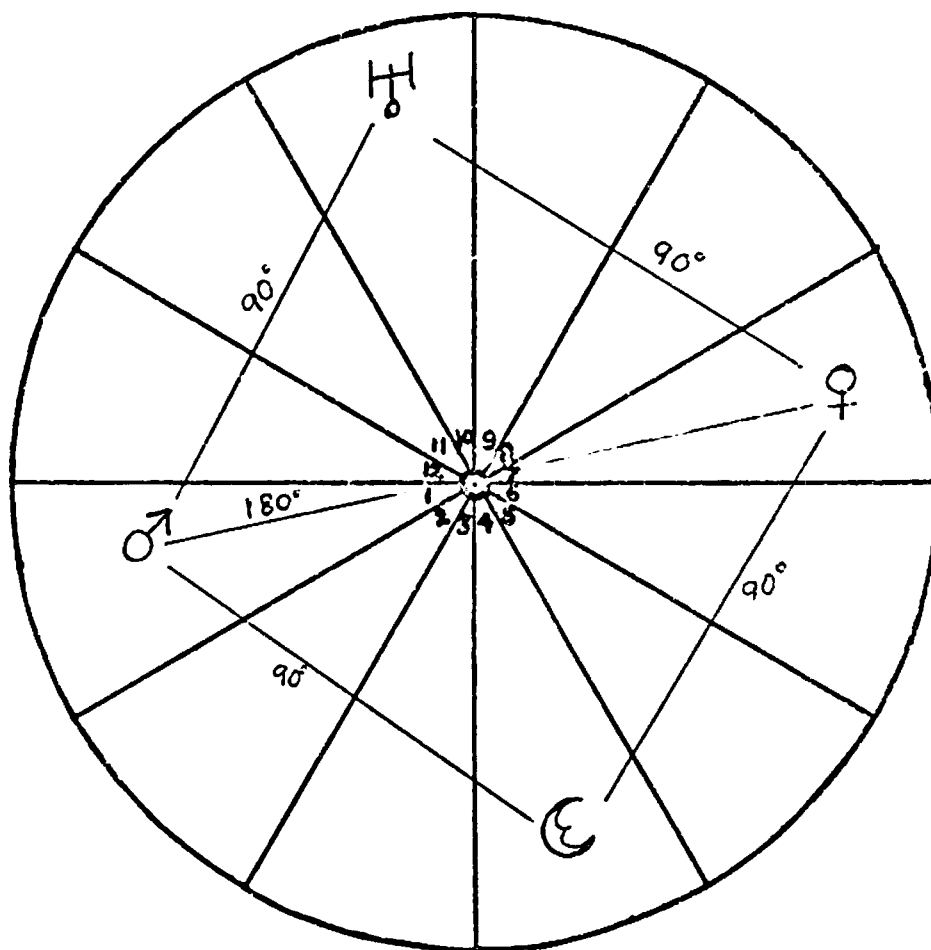and experiences sorrow and restrictions through them regarding death,

Figure 9

Figure 10

and that the hopes and ideals become a heavy burden which affect his/her orientation to all contracts and partnerships, perhaps pushing the person to strive exceptionally hard in these matters in order to overcome them.

The "conjunction" or $0°$ is not illustrated. It can potentially occur between any two bodies. Its interpretation depends solely on the planets, sign and house involved. For example, the conjunction of mars and saturn is said to be very stressful, whereas the conjunction of mercury and jupiter very harmonious in terms of psychological effects. Another aspect, the "parallel of declination," is said to have effects similar to the conjunction; however, its calculation is more sensitive to errors in birth time than that of the conjunction.

There are a number of "minor" aspects which supposedly coincide with less potent phenomena, most notable of which are the $150°$, $135°$, $45°$ and $30°$ angles.

Since few charts contain a large number of angles which are exact or "partile," a small orb of "influence" is considered in the calculation of aspects, e.g., $112°-128°$ is the area spanned by the "trine," whose exact value is $120°$. The aspect is considered most potent when exact, with decreased potency at the outer limits of the orb. In addition, the aspect is considered more potent when the two planets forming the aspect are moving relative to one another in the process of reaching the precise angular distance specified, e.g., forming an angle of $120°$ in the case of the trine. For any aspect, one of the planets forming the aspect is the faster moving in terms of the distance it appears to cover relative to the constellations. For example, from the earth, mars

appears to move faster than pluto; therefore, suppose the current angular relationship between mars and pluto were 116°. If mars were approaching pluto and had not yet reached the 120° angle, the aspect would be rated more potent than, if a few days before, mars and pluto had already reached the 120° angle and mars was now in the process of lessening the angle between them. This subtlety is highly significant to the theory of progressions in astrology, which will be dealty with presently, since it posed some problems in the conceptualization of this research project regarding the issue of controlling astrological variance.

Persons well versed in astrology will doubtless opine that the foregoing is rather sketchy and may take issue with some minor points; however, its purpose is to firmly establish the notion of the extent of possible sources of variance in any study which might propose to investigate astrology with the tools of psychology, and to explicate the need for a very large subject pool in order to homogenize groups in a refined manner. Ideally, one could compare one group of people born at the same time and place with another group born at an entirely different time and place. However, for a graduate student with limited funds and mobility, it would be simply unrealistic. The challenge, then, is to devise some means of logistic and conceptual simplification which would yield data provident for other interested researchers as groundwork and which would have heuristic value, however indirect.

Adding to the burden of this challenge is the theory of progressions. Since most astrologers (e.g., George, 1930; Parker and Parker, 1968) focus on a method called Secondary Directions, for the purposes of this study it seemed fair to ignore the system of Tertiary Directions (Lyndoe,

1970) and Primary Directions (George, 1970). Secondary Progressions is a system by which the trend of events during a person's life is predicted, and its rules generate rather precise predictions as to the timing and nature of events. From a psychological point of view, this means that one could predict the phases in a person's life in which he would experience harmony or stress, e.g., a romantic phase vs a depressive phase. An example of this type of prediction would be a recent progression in the horoscope of former President Richard Nixon. The planet venus has been in a progressed relationship with the planet uranus in a manner which would predict stress in his life. A general indication of the nature of the stress is found by synthesizing a number of factors, but a broad idea can be gleaned from the following passage from Llewellyn George, which delineates the overall meaning of this particular progressed "aspect" for any horoscope:

> Unfortunate for matters concerning the opposite sex. Extremely unconventional and indiscreet, liability to scandal and discredit thereby. Sudden and unexpected losses and estrangement from friends. Not good for speculation or risky ventures.[2]

This statement would form a basis for a prediction from any horoscope containing this progressed aspect and would apply to a definite period in a person's life which could be predicted solely from knowledge of the time and place of birth. In addition, according to the nature of the particular natal horoscope, the prediction would be further refined.

Had the same two planets been, by progression, in 120° angular relationship, the basis for the prediction would have been this statement or one similar - again quoting from George:

> Gain by such things ruled by the planet in question. Inclines to the company of the opposite sex. Romance, new

friends, increase in business, new facilities, improved
methods, new and pleasant experiences.[3]

The overall psychological responses to such two events would be
reasonably distinct, one characterized by harmony, the other by strain.
Yet these predictions involve the same two planets with only the angular
relationship varying. Another example of the prediction as a function
of the nature of the planets and their angular relationship is the
following quotation from George about the predictions of an adverse
angular relationship between mars and saturn:

> Especially unfavorable if from the first, seventh or
> tenth house. Inclines to quick, violent temper which leads
> to quarreling, fighting, jealousy and perhaps crime. Danger
> of accident and broken bones; loss in business and occupa-
> tion; thefts; nervous apprehension and irritability; liable
> to sudden, sharp serious attacks of illness.[4]

George's reading for a harmonious angular relationship between these
two planets is as follows:

> If one or both planets are prominent, denotes activity,
> steadfastness and credit through some courageous acts and
> well-regulated business activity of practical, conserva-
> tive nature. Good for building, repairing, improvements;
> constructive, mechanical, or industrial activity; manufactur-
> ing, engineering, excavating, mining.[5]

Both statements would be modified and refined to suit the natal
horoscope, but the essences, which are clearly different, would remain
and convey the psychological tone.

The angular relationships noted in the method of Secondary Pro-
gressions are the same angular relationships considered significant in
the natal horoscope, namely $0°$, $60°$, $90°$, $120°$ and $180°$. The interpre-
tations of these "aspects" are also similar to interpretations of aspects
in the natal horoscope and both interpretations clearly convey harmony

or dissonance at the psychological level. The difference lies in the fact that aspects in the natal horoscope suggest chronic patterns, whereas those in the progressed horoscope are more transient, varying in their effects from a month to a year to two. The natal horoscope suggests a foundation and the progressed horoscope the unfolding of events. The horoscope can be calculated for any point in time subsequent to birth. A brief explanation of the method is given in Appendix A.

The significance of the progressed factors in a horoscope is that, if one chooses to conduct a research project with personality tests, these tests are administered at some point in time and will reflect not only stable personality characteristics to an unpredictable degree, but will also reflect the current functioning of the person, e.g., reactive depression. In order to select horoscopes in which current progressed factors, which are said to characterize current psychological trends, could be homogenous, one would require a subject pool of several thousand, perhaps more. If one omits this potentially major source of variance from the study, the overall power of the study is diminished. This sacrifice is necessary, however, if, as in the case of this researcher, the resources are not available to manage the logistics. It occurred to this author after the data had been gathered that it would have been reasonable to simultaneously select, from the available subject pool, horoscopes which were homogenous with respect to certain progressions although natally dissimilar. This would permit some broad estimation as to the need for inclusion of progressions.

A similar, but presumably less potent, set of conditions could arise from failure to control for the effects of transits of the planets

relative to a natal horoscope. Transits refers to, in this instance, the positions of the planets at the time the subject would be engaged in taking the personality tests and the aspects of the planets to natal and progressed planets and to each other. For a full treatment of transits, see any comprehensive astrology text, e.g., George (1970).

Recapitulating, one could independently study the effects of planets in various zodiacal signs, the placements according to the "houses," positive and negative signs, effects of natal "aspects," effects of progressed "aspects," etc., etc., or any combination thereof. One could make a priori hypotheses or be strictly empirical or positivistic. One could select from any number of psychological instruments or techniques and survey any age group. The permutations appear endless.

The sets of factors which interested this author most, and seemed to hold the promise of relatively clear interpretation, were the aspects or angular relationships among planets. The interpretation of such aspects is generally treated in some detail in astrology texts and these inter-pretations can usually be easily categorized as either strongly implicating psychological harmony or strain. It was surmised that it might prove inter-esting to compare people whose natal horoscopes were loaded with harmonious aspects. This choice grew not only from the author's curiosity about astrol-ogy, but from his general observations that some people seem to exude strain - that is, one senses from them an inner turbulence that seems independent of our shared reality. An example is a person who is, by most standards, financially and situationally well-off and yet seems never to sense that fact. On the other hand, some people seem to be generally free of stress,

apart from responding adaptively to dangers to their sense of well-being,

e.g., studying intensely for important examinations or preparing for an

imminent divorce, yet they do not give an impression of intentionally

projecting the image of harmony. In fact, they may at times seem to be

responding deeply to minor situational difficulties if one judged by the

volume of their complaints; nevertheless, their complaints somehow serve

them well in that others are stimulated to assuage their discomfort, thus

doing all the work for them and supporting the old saying that, "The

squeaky wheel gets the grease." Most people appear to be a compromise.

The possibility exists that harmony distributes itself normally, like

many other phenomena, with the extremes of the normal curve comprised of

very turbulent personalities on one end and very harmonious personalities

on the other end. This particular quality would be very difficult to

isolate. But explorations might begin to provide some interesting con-

cepts for personality theory so long as the idea of harmony vs strain

were not confused with the idea of happiness. For instance, generosity

as a general personality attribute could be integrated smoothly with

other factors or consistently result in compromising circumstances.

Smooth integration might refer to circumspect but generous giving without

overextension; whereas, poor integration might refer to a pronounced

tendency to be swept up in a moment and be led to offer one's services

in a manner reflecting poor judgement and eventually requiring compensa-

tory efforts to restore balance. Either way, one might expect the nature

of the trait to be woven in with the fabric of the personality. A large

proportion of poorly integrated factors would be expected to be associated

with persons who consistently engage in effortful compensatory activities,

some of which may eventuate in highly productive enterprises or accomplishments but at great cost in terms of energy to the person. A large proportion of well-integrated factors would be associated with a much more efficient use of energy. An interesting example springs to mind - two children who display equal ability in mathematics, but one child has learned primarily on an avoidance schedule, e.g., to avoid adult disapproval, and the other child has developed his skill in concordance with natural curiosity with additional stimulation by positive interaction with adults.

This study was in part an effort to help structure this author's thinking along these lines, independent of whatever data might be generated, although the data was still the primary interest. Much of the interest in "aspects" was stimulated by articles by Nelson (1951, 1952) in which he found that periods of clear radio transmission and radio storms were predictable from the "aspects" of traditional astrology. (See Review of Literature section.) In addition, it is the "aspects" that seem to be free from controversy among astrologers. This is not true of most other astrological topics. For example, there are several methods of figuring "house cusps" (Morinus, Equal House, Placidean, etc.) which would affect house positions of planets. Some astrologers advocate the use of 14 zodiacal signs. There are the different methods for "progressing" a horoscope, as mentioned previously, etc., etc. Thus it was decided to center this investigation on the geometric relationships among planets in the natal horoscope according to those relationships held to be most significant in traditional astrology. There was no intention to prove or disprove astrology, indeed with so many other

astrological factors free to vary, even negative results would not rule

out the possibility that aspects are related to personality factors, only

that the design of this study was not sensitive to whatever effects exist.

The choice of personality tests, even the fact that personality

tests were selected over other psychological indices, was purely a

matter of convenience, the author's familiarity with the instruments

chosen and their administration being simple and having standard sim-

plified scoring. There was no logical basis for using these tests vis

a vis astrology. The study was intended to be purely empirical, the

sole hypothesis being that if two or more groups were selected, differences

between these groups might be detectable by their idiosyncratic patterns

of responses to items on personality inventories. The groups themselves

were to be selected solely on the basis of their natal horoscopes, one

group having a high ratio of harmonious natal aspects to discordant

natal aspects, and the other group having a low ratio, irrespective of

zodiacal signs or other astrological factors. Since the most readily

available subject pool consisted of students enrolled at the University

of Houston who would respond to advertisements requesting subjects

for a study on astrology and personality, a restriction of unknown degree

on overall variance was expected. Another intruding factor was the

possibility that, since the subjects finally selected were aware that

the study related to astrology, even though they would be unaware of

the exact nature of the study, they might respond to items somehow to

conform to their own knowledge of their sun sign. However, the practical

fact that advertising an experiment in astrology would elicit more

orienting responses, and consequently enlarge the number of respondents

from which subjects could be selected, than would advertising an experiment on personality, outweighed the stated disadvantages. This study was designed primarily as an elaborate pilot study, to test whether further inquiry along these lines might be productive. Since relatively few guidelines exist as to methodological efficiency, and since anything beyond a pilot project would be grandiose, the study will have many weaknesses. It was only hoped that its conceptualization was sound enough to compensate and yield interesting data.

CHAPTER II

LITERATURE REVIEW

Carl Jung was one of the earlier psychologists to express an

interest in astrology. The following is a letter Jung wrote to B. V.

Raman, an Indian astrologer in 1947:

> Dear Prof. Raman:
>   I haven't yet received "The Astrological Magazine," but
> I will answer your letter nevertheless.
>   Since you want to know my opinion about astrology I can
> tell you that I've been interested in this particular activity
> of the human mind since more than 30 years. As a psychologist
> I am chiefly interested in the particular light the horoscope
> sheds on certain complications in the character. In cases of
> difficult psychological diagnosis I usually get a different
> angle. I must say that I very often found that the astro-
> logical data elucidated certain points which I otherwise
> would have been unable to understand. From such exper-
> iences I formed the opinion that astrology is of particu-
> lar interest to the psychologist, since it contains a sort
> of psychological experience which we call "projected" - this
> means that we find the psychological facts as it were in the
> constellations. This originally gave rise to the idea that
> these factors derive from the stars, whereas they are merely
> in a relation of synchronicity with them. I admit that this
> is a very curious fact which throws a peculiar light on the
> structure of the human mind.
>   What I miss in astrological literature is chiefly the
> statistical method by which certain fundamental facts could
> be scientifically established.
>   I remain, Yours sincerely,
>   C. G. Jung[6]

Jung (1969) did his own study on the compatibility of horoscopes as

predictors of marriage and found that the woman's sun and man's moon were

conjunct significantly more often in married couples' horoscopes than in

the horoscopes of randomly assigned couples (p < .01).

In The Case for Astrology, West and Toonder report the 1950's work of Vernon Clark, an American psychologist. Clark selected 5 males and 5 females between 45 and 65 years of age who had been born in the United States and who had been in well-defined professions for some time. The professions were: herpatologist, musician, bookkeeper, veterinarian, art teacher, art critic, puppeteer, librarian, prostitute and pediatrician. He then sent copies of their horoscopes to 23 different astrologers in England and the United States who were informed only about the 10 professions and asked to rank in order the 5 most likely professions with each horoscope. As a control, professional psychologists and social workers performed the same task. Clark found that the 20 astrologers who complied within the time period of the experiment matched the professions with the horoscopes significantly better than chance (p < .01) whereas the control judges performed at chance level. However, West and Toonder (1973) do not report the data or statistical technique. The authors report two additional experiments by Clark. Again, the 23 professional astrologers were employed. They were given 10 pairs of horoscopes. To each pair, a history, complete with dates of important life events (honors, deaths, etc.) was attached. One of each horoscope pair was of the person whose history was attached. The other horoscope was simply calculated from a time and place near the true chart, although the astrologers were not informed of this. Three astrologers matched all 10 horoscopes correctly, 18 astrologers performed above chance (p < .01) and 2 astrologers scored at the chance level. In the other experiment, Clark again gave 10 pairs of horoscopes to the astrologers. One of each

pair belonged to a cerebral palsy victim, the other to someone above average intelligence and exceptionally gifted. Once again the astrologers scored well. This work would have been more interesting had Clark worked more with the 3 astrologers reported to have done so well.

More recently, studies about astrology have begun to appear in the psychological journals. Silverman (1971) found that subjects were likely to identify themselves with the personality characteristics of their sun sign only when they were informed in advance of the name of the sun sign but not when the same characteristics were simply identified as sets of personality characteristics. This suggests that people adopt the characteristics of their sun signs as a means of structuring the way they conceive themselves, whereas the particular characteristics are unimportant and have no intrinsic or objective relationship to actual personality characteristics. He also found no relationship between sun signs and the subjects' choice of marriage partners.

In another study on sun signs, Pellegrini (1973) found a very strong relationship between sun signs and scores on the Femininity scale of the California Personality Inventory (F = 24.24, df = 11/264, p ⊀ .001). He also found significant differences on the Communality Scale, Socialization Scale and Flexibility Scale, but he interpreted the significance on these scales to Type 1 errors due to the large number of F ratios calculated and the low ω^2 values (.12, 05 and .05) suggested a poor relationship for these scales. On the Femininity Scale, Pellegrini (1973) found that half the sun signs - Leo, Virgo, Libra, Scorpio, Sagittarius and Capricorn - scored higher than the other half - Aquarius, Pisces, Aries, Taurus, Gemini and Cancer, i.e., people born in the latter part of August

through the latter part of January vs people born the other one-half of
the year, from late January to late August. Since astrologers generally
associate the right side of a chart with receptivity and passivity and
the left side with activity, these results (except for the signs Cancer
and Capricorn, which should have been opposite from the data) are interest-
ing in that the signs high on the Femininity Scale are traditionally right-
sided signs. Even so, it is surprising to find results on personality
tests which correlate in any manner with sun signs, given that so many
other astrological factors are omitted or uncontrolled.

The methodology of Silverman and Whitmer's (1974) study comparing
the astrological factors of sun, moon and ascending sign with ratings on
the Extroversion Scale of the Eysenck Personality Inventory and 5 addition-
al personality attributes were discussed in the previous chapter. The
results indicated no correlations except between moon sign and friends'
ratings, which were probably Type 1 errors due to the number of correla-
tions calculated.

The most impressive recent study is a doctoral dissertation by
Hans-Volker Werthmann (1971) . The experiment and results are rather
lengthy, and since his work has apparently not been translated from
German to English, it seems worthwhile to include some large portions
of it here. Werthmann was assisted by many people in his study, including
one astrologer, Walter Boer, who is one of the top 5 astrologers in
Germany, according to Werthmann. The work on each of 32 subjects was
divided into 3 shares - a comprehensive life history protocol, a com-
prehensive psychological evaluation protocol and a comprehensive astrolog-
ical protocol. The polarity profile mentioned in the article is the

Semantic Differential. The following extensive reproduction begins with

Werthmann's discussion of the groups of subjects:

Group	Number of Subjects
Older Men Without Diploma	5
Older Men With Diploma	5
Older Women With Diploma	4
Older Women Without Diploma	5
Younger Women With Diploma	5
Younger Women Without Diploma	5
Younger Men With Diploma	3
	32 Total

"Older" Ss were between 50 and 65 years old, "younger" ones were between 40 and 55. In a few cases these age limits were exceeded both above and below, without fear of a noticeable influence on the experiment being produced by this.

2.2 The common program of work for the life history interviewer, test giver, and astrologer: Each subject was subject to diagnosis in at least three ways - by a life history interviewer, a test giver who was "blind" with regard to the Ss' background, and an astrologer (also "blind"). In a few test cases there was available a further protocol from the promoter of the test, likewise there were a few only graphological blind protocols.

2.21 The free protocols. Each assessor had first of all the task of writing a "free protocol." By this is meant that no directions were given about the scope and content of the protocol. The written instruction for all assessor read: Please write with the aid of your evidence a free protocol, as you are accustomed to do so, and which you consider to be correct. No directions are given you with regard to length, content and order of the statements.

2.22 Development of a "manual" for the dimensional protocols: The use of free protocols carried with it the danger that the protocols of different origin about the same Ss might not be comparable among one another. At least a hindrance in the comparability must be counted on. In order to counter this source of error and at the same time to produce a briefness and preciseness in the statements, each of the assessors was asked to make a summary of his opinion about the S in question in a so-called "dimensional protocol," for which he would receive a "manual."

In the "manual" it was sought to include everything which might be contained in the various types and protocols with regard to themes. In doing this, a series of sample "attributes"

was given for assistance in the work of the accessor.

The "manual" stemmed from a series of previous studies by co-workers in the "Institute for fringe areas of psychology and psychological hygiene" in Freiburg. As this work was begun, already a few drafts of a manual were in progress. In order to determine its final form, 3 psychologists (co-workers of the Institute) and the astrological co-worker worked over simultaneously and independently extensive suggestions for modification. From this the last form was finally distilled. Its framework consisted of 12 "dimensions" of personality, which corresponded to the individual "houses" or "fields" of the horoscope. They were formulated in psychological concepts, or, however, psychological concepts and manners of observation were added.

2.23 Fractionated Associations II: For the preparation of the "Fractionated Associations II" each assessor received the following instructions: a) Please assemble a series of statements (at least 15, no more than 30), about which you are fully certain, even if subjectively. You may express these statements as differently as you like - in a work, sentence, or several sentences. b) For each "correct" statement, please construct a "false" one, i.e., a statement about the person in question which pertains to the same dimension as the "correct" one, but which certainly <u>does not pertain</u> to the S. c) The statements should now be written <u>beside each other</u> on a sheet of paper. The correct ones should not, however, always be placed on the same side, but they should be divided among left and right at random. d) Please write the sheet of paper with 5 copies, and on one of the 6 copies (control copy) make little crosses beside the statements you consider "correct." (The statements do not have to be related to different areas of personality each time. No prescriptions are made for you in this regard.)

Example: S is the ex-Chancellor Erhard

Interests: Politics, administration, government, loves classical music and soccer (X)

Interests: Loves modern literature, e.g., Gunter Grass and Rolf Hochhuth

Constitution: Large, lean asthenic

Constitution: Middle-sized, fat, pyknic (X)

Very clear, short and precise manner of expression

Idealized, "old-fashioned" manner of expression (X)

2.24 Polarity Profile: Because the filling out of the

polarity profile followed the usual procedure, with which all psychologists, examiners, and the astrologer were sufficiently familiar, no special instruction was given, only the reminder to fill out the profile with regard to the S in question.

For our investigation we used the polarity profile in 2 forms, namely, in one used by Hofstatter and one developed ourselves, which was designed to be specifically pertinent to particular dimensions of personality. The latter contains the following polarities on a seven-point scale:

1. Total Character

disharmonious	- harmonious
well-marked	- sketchy
materialistic	- idealistic
stable	- labile
emotional	- intellectual

2. Mental Capability, Interests

one-sided	- many-sided
original	- commonplace
full of fantasy	- sensible
theoretical	- practical
aesthetical	- inartistic

3. Drive, Will

slow	- fast
steadfast	- changeable
flexible	- head-strong
decisive	- hesitant
a planner	- an improviser

4. Mood, Self-concept

unassuming	- ambitious
unsteady	- balanced
self-critical	- lack of self-criticism
certain	- uncertain
pleasure-loving	- ascetic leanings

5. Emotionality, Affect

dry, sterile	- juicy (vulgar-spicy)
spontaneous	- constricted
sensitive	- obtuse
calculating	- impulsive
introverted	- extroverted

Through the inclusion of 2 profiles one can undertake many-sided controls. Not only can 2 correlation coefficients be calculated, but also a single one, which takes into account 50 polarities (instead of 25). With an enlarged profile of this nature a significant correlation is easier to obtain than with one less comprehensive.

2.3 Separation of Tester and Interviewer: The experimental plan provided that the life history interviewer and the test experimenter would not be the same person. The reason for this is that one cannot exclude the possibility of a reciprocal influence.

However, in the course of the experiment, this separation proved to be impossible to carry through, because a second psychologist at our disposal could not be found for participation in tests and interviews taking place over such a long period of time. So, the person who wrote most of the test protocols took over and learned the remainder by means of the requisite transcriptions. Likewise, he undertook a large part of the life history interviews and likewise learned the rest through transcriptions. Because this person had to formulate the collective life history protocols, one cannot rule out the possibility that the knowledge of the tests had an occasional influence. In the opinion of the assessor, however, this influence need not be considered too great. First of all, the life history protocols predominantly contain data which are the direct reproduction of experiential developments or objective manners of behaving. Here, one can hardly consider an influence. In addition, as a rule, a fairly long period of time lay between test taking and writing down of the life history protocols (from tape recordings of interviews), which must have reduced the possible influence once more. Nevertheless, the identicalness of the interviewer and tester is a deficiency in the experimental procedure which should have been avoided if possible.

2.4 Test- and Blind-Test Protocols: Also, the intention to have written in each case a test protocol and a blind test protocol, could not be realized, because in this manner too much material to be processed would be produced. For a larger planned-out investigation, however, it would be desirable to proceed in this manner.

For our investigation, 16 blind test protocols were written, and also 4 normal ones, about a test which the assessor himself had taken.

2.5 The Selection and Administration of the Tests: All Ss were tested with the same psycho-diagnostic procedure. This was the one in our experience most frequently used in a routine

psychological investigation. Each person took: a) the Hamburg-Wechsler-Intelligence Test for adults (HAWIE), b) the Rorschach, c) the color-pyramid test (Pfister/Heiss: 24-color series), d) the TAT (mostly 5 selected pictures), e) the Four-Picture-Test (Lennep), this was at the same time a specimem of writing, occasionally replaced by a "Wartegg-Tell-a-Story" test.

In many cases, this battery was supplemented by further procedures, e.g., by the Wartegg-Symbol-Test, the Tree-Test (Koch), etc. The Rorschach and the TAT were as a rule tape-recorded.

The blind assessor received the already-calculated HAWIE. The Rorschach was unmarked, but in difficult or questionable places suggestions about the marks were made to the psychologist.

2.6 The Selection of the Assessor - Qualification of the Assessor and Quality of the Assessments: In psychodiagnostic procedures whose end result is determined by several intermediate steps, e.g., taking, marking, calculation, interpretation, and whose objectivity suffers as a consequence, the question always arises, of whether control investigations test more the procedure itself or more the quality of the assessor. One thus as a rule seeks to bring the most highly qualified assessor possible to the experiment.

In our investigation this succeeded only in part, due to the great number of protocols to be written. As the astrological assessor, we were able to obtain the services of Walter Boer. In the earlier extensive investigation by Bender, Herr Boer belonged to the small top group of astrologers which had emerged from the total of well over a hundred. One can say that Herr Boer, who has been occupied with astrology for over 30 years, certainly belongs among the 5 best German astrologers now living. It was especially helpful for our investigation that Herr Boer, who is a teacher, possesses extensive knowledge of scientific psychology, and thus in the formulation of his protocols was able to conform to psychological means of expression. In addition, Herr Boer understood our experimental plans and the requisite classification and associational experiments. Finally, it was helpful that Herr Boer does not practice astrology as a profession (and has never practiced), so that he could introduce in relation to it an inner, independent position, along with a corresponding tolerance for frustration in the face of a from time-to-time over-critical psychologist. Herr Boer has sacrificed with remarkable patience and genuine scientific interest a very great deal of time for the work lasting over 2 years, for which we owe him a great deal of gratitude.

The life histories were written by 6 assessors, who were experienced in psychological interviewing. The test and blind-test investigations were undertaken by 20 Ph.D. or Ph.D. candidates who were soon to take the major examination for the diploma. Care was taken to select assessors who had good or very good grades in the diagnostic areas.

The graphological associations were undertaken by 21 Ph.D's and candidates. The criteria for participation in the associational experiments were at least 3 courses in graphology and good grades in this area. In all cases one could conclude that the psychological assessors and associators were professionally at least good on the average.

The participation of possible only average quality psychological co-workers in the experiments is supported by the following argument: The issue cannot be to compare top astrologers with top psychologists, because the majority of working psychologists are so little to be counted in the top class as is on the other hand true for the astrologers. If our experiment had been a verification experiment, which it cannot and should not be, then it would not have to be proven that top psychologists are better than top astrologers, rather, it would suffice to show that top astrologers are no worse than average psychologists.[7]

Werthmann's results were so extensive that he presented them for 3 subjects only and that required an entire second article. He chose 2 cases for which, he believed, the astrological protocols and life histories agreed and 1 case for which agreement seemed poor. Overall, his temporary subjective impression of the 32 protocols was that 1/5 of the protocol sets agreed quite well and 1/5 did not agree, with the rest in between. However, if the 1 subject reported whose protocols were judged to be at variance with one another, is an example of the 1/5 which supposedly did not agree, then in the judgement of this author, Werthmann's results are impressive, because the protocols of this subject indeed seem to be congruent in a manner far exceeding guesswork.

Nelson (1951, 1952) conducted an examination of shortwave radio propogation conditions over the North Atlantic for a five-year period.

He plotted the helocentric angular relationships among the planets for
times when severely degraded transmission or unusually clear transmission
occurred. His data suggested a number of hypotheses which are published
in the March issue of the 1951 <u>RCA Review</u>. The following quotation is
from pp. 30-31 of that journal:

> The encouraging correlation found between ionospheric
> disturbances over the North Atlantic and configurations (par-
> ticularly of the multiple type) for 1942, 1944, 1947, 1949
> suggest the following deductions:
>
> (1) That the most disturbed twelve-month periods will
> be those preceeding and following configurations
> of the 0°, 90°, 180°, and 270° type between Saturn
> and Jupiter.
>
> (2) That the most disturbed parts of the periods in (1)
> will be those in which Mars is close to a config-
> uration of the 0°, 90°, 180^c, and 270° type with
> either Saturn or Jupiter.
>
> (3) That the most disturbed part of the periods in (2)
> will be weeks when Earth, Venus, or Mercury has
> a configuration of the 0°, 90^v, 180^c, or 270° type
> with either Saturn, Jupiter or Mars.
>
> (4) That the most severe disturbances of all will come
> when the combined influence of Mars, Earth, Venus
> and Mercury are such that all four will be arranged
> in positions where there will be a great concen-
> tration of planetary influence near the 0^c, 90°,
> 180°, or 270° points of the Saturn-Jupiter team
> during the configurations mentioned in (1).
>
> (5) That the least disturbed periods will be those
> preceeding the following periods when Saturn
> and Jupiter are separated by 120°, the principal
> disturbances during these periods coming from
> configurations of the 0°, 90°, 180°, or 270^c
> type that the inner planets Mars, Earth, Venus,
> and Mercury make among themselves, or as a
> multiple with either Saturn or Jupiter.
>
> (6) That the least disturbed periods of all will
> be those when Saturn, Jupiter, and Mars are
> equally spaced by 120°, the principal distur-
> bances during these periods coming from con-
> figurations that Earth, Venus, and Mercury
> make among themselves, or as multiples with
> Saturn, Jupiter, or Mars. Configurations of
> the multiple type are less frequent during an
> arrangement of 120° among these three slow
> outer planets.

(7) That 60 relationships between planets will also
tend to produce "least disturbed periods" since
$60°$ is one half of $120°$.

An exact arrangement of $120°$ as mentioned in (6) is rare
but a very close approach to it occurred in 1934 when Jupiter
was $120°$ behind Saturn on June 1st. During August, Mars came
to the $120°$ position with both Jupiter and Saturn within a
few days, while Jupiter and Saturn were $117°$ apart. Magnetic
activity records show that the 1934 yearly average was the
lowest recorded between 1930 and 1949.

Astrological charts show geocentric angular relationships among
planets, however, the fascinating points are first, that the angular
relationships found to be significant were $0°$, $60°$, $90°$, $120°$, $180°$
and $270°$ (i.e., $90°$) and second, that the $90°$ and $180°$ angles were
correlated with disturbed periods while the $60°$ and $120°$ angles were
correlated with harmonious periods. These are not only the precise
angular relationships deemed important in astrology, but they also con-
vey harmony and discord along traditional astrological lines. Since
Nelson's (1951, 1952) studies were conducted independent of astrology,
they, more than any other factors, stimulated this research project.

CHAPTER III

METHODOLOGY

Subjects

The criteria for selecting the subjects were that the natal horoscope

must have a 2:1 ratio of harmonious aspects to discordant aspects (Group A)

or a 1:1 ration (Group B). These ratios were selected to allow for a suf-

ficient number of subjects for each group, i.e., the horoscopes of the

available subject pool (approximately 200 respondents) were scanned to

determine which ratios would permit a clear separation of the groups by

aspects. Thus the extreme ends of the overall distribution were selected,

and they happened to have the ratios given. It would have been preferable

to have an even larger separation, e.g., 3:1 vs 1:2, but, particularly in

the case of Group B, this was not practical. In Group B, only seven

horoscopes had a ratio less than 1:1 (most were slightly more than 1:1)

and none was less than 2:3, whereas for Group A, all were greater than

2:1, five being 3:1. It may have been yet better to compare groups

using only the number of discordant aspects as the differentiating factor,

since, as it was in this sample, a Group A horoscope may have as many

discordant aspects as a Group B horoscope, but have more harmonious

aspects.

All but three Ss were enrolled in the 1973 second summer session at

the University of Houston and were either advanced undergraduate, post-baccalaureate, or graduate students. The other three Ss had received either undergraduate or graduate degrees within the past five years. All three were in Group B - two were females.

Group A (harmonious) was comprised of 13 males and 11 females with an average age of 27 (males 27, females 27). Group B (discordant) was comprised of 12 males and 13 females with an average age of 26.3 (males 25.5, females 27). Ages ranged from 24 to 36. The age and sex distribution was purely chance since no effort had been made to equalize groups by either.

Five subjects had to be discarded and four added to replace them. Four of the discarded Ss were females in Group A. One was discarded because she had completed high school only, another because she deliberately faked the personality tests to look bad, and another because she was a professional astrologer and may have had a response set based on knowledge of her own natal and progressed chart. A male S in Group B was discarded because, due to an obvious and severe obsessive-compulsive personality, he was unable to complete the MMPI. He wanted to understand each of the 566 questions fully before answering true or false. Interestingly, he held a master's degree in physics and was currently unemployed.

The Ss were interesting people with a variety of backgrounds and current interests. They included a world traveller, a former nun, an opera singer, an interior decorator, etc. In addition, academic majors ranged widely - from pre-med and engineering to philosophy and English.

Procedures

The 49 final subjects were selected from a pool of over 200 respondents

to an advertisement posted at various locations on the University of
Houston campus. The advertisement read:

> FREE HOROSCOPE - We are doing psychological research on per-
> sonality and astrology. We are looking for people who know
> the date, place and exact time of their birth, who are 23
> or older, and who would be interested in taking some per-
> sonality tests. The people selected will be those whose
> astrological charts show certain factors. In return for
> your cooperation, you will receive a professional quality
> horoscope with a personal interpretation. All materials
> will be completely confidential and when the research is
> completed, you will receive a copy of the results. If you
> are interested or know people who might be, please come to
> room 715, Science and Research Bldg. There is a sign out-
> side the door which will give you additional information.

All respondents were contacted by telephone, or at least contact
was attempted several times after their complete natal chart had been
calculated and cast. They were told only that they either qualified or
did not qualify for the study, no information being given as to the
specifics of the study. Those who did not qualify were told they could
pick up a copy of their chart but that due to time involved, no inter-
pretation could be offered. Respondents who qualified were asked to come
to the author's office to take three personality tests requiring approxi-
mately 2-3 hours to complete. Upon completing the tests or at another
time convenient for them, they were told that they would receive a com-
plete reading of their natal and progressed chart.

All Ss were asked to complete Form R of the Minnesota Multiphasic
Personality Inventory (Hathaway and McKinley, 1951), Form A of the 16
Personality Factors (Cattell, 1950) and the Eysenck Personality Inven-
tory (Eysenck, 1963). All but two Ss were able to accomplish the task
in a single session. Following completion of the tests, the subjects
were given a reading of their progressed and natal chart as compensation

for their cooperation. When all Ss had completed the task, the tests
were hand-scored and the data analysed. MMPI raw scores were plotted on
the back of the Form R answer sheet, which provides separate graphs for
males and females which transform the raw scores to "T" standard scores
with a mean of 50 and standard deviation of 10. The 16PF raw scores were
transformed to sten scores using the separate 1962 norms for male and
female college students. The mean sten score fell in the area of five
and six with a standard deviation of one.

Natal horoscopes were cast with the aid of the A-P Table of Houses,
an atlas, and The Astrologer's Ephemerides.

Analysis of Data

Since the study was a pilot project, the data were analysed in
several different ways, the purpose being to gain as broad a perspective
as possible and to lay groundwork for further research. As previously
mentioned, a number of factors were not controlled from a purely astro-
logical standpoint, leading to some uncertainty as to the exclusiveness of
the groups. In addition, the fact that the Ss were all educationally
advanced contributed an unknown amount of homogeneity across groups.
This led to uncertainty as to the power of the tests to reject the null
hypothesis if it in fact was false. This concern is particularly impor-
tant in exploratory research. Quoting from Winer (1962):

> Too much emphasis has been placed upon the level of
> significance of a test and far too little emphasis upon the
> power of a test . . . No absolute standards can be set up
> for determining the appropriate level of significance and
> power that a test should have . . . What is needed to attain
> the demands of the well-designed experiment may not be
> realized. The experimenter must be satisfied with the best
> design feasible within the restrictions imposed by the
> working conditions. The frequent use of the .05 and .01

levels of significance is a matter of convention having
little scientific or logical basis. When the power of a
test is likely to be low under these levels of significance,
and when type 1 and type 2 errors are of approximately
equal importance, the .30 and .20 levels of significance
may be more appropriate than the .05 and .01 levels.[8]

A type 2 error is costly if it closes research channels. Therefore,
the .20 level of significance was selected for that part of the data
analysis for which confidence intervals were appropriate, namely mul-
tivariate analysis of variance (MANOVA) and multiple linear regression.
The multivariate analysis of variance essentially provides the same in-
formation as Student's t but in multidimensional rather than two-
dimensional space. It yields an F ratio which is comparable to that
of the Model 1 - Fixed Effects design described by Hayes (1963).
Although Model 1 - Fixed Effects is not precisely appropriate to these
data (since the independent variable, i.e., aspects, is a random sample
of all possible independent variables), it was thought that, neverthe-
less, the MANOVA program might yield useful information about the data,
particularly in view of the fact that a more sophisticated analysis of
variance program was not available. The multiple linear regression
program provided a separate set of F ratios for each of the scales of the
MMPI and 16PF based on the partial sum of squares. Both procedures
were designed and implemented by Barr and Goodnight (1972). A third
statistical program - multiple discriminant analysis (Barr and Goodnight,
1972) - was used to determine if the individual subjects could be
classified correctly as to group membership. This procedure is based on
discriminant weights which evolve from the within covariance matrix and
are then assigned to each scale of the MMPI and 16PF and from which a

probability statement can be made about the group to which any subject

belongs. A fourth program - Biometrics Classification Program (Brooks

AFB, Biometrics Division) is a slightly modified multiple discriminant

analysis program. Finally, each of the 13 scales of the MMPI and the

16 scales of the 16PF underwent two-way analysis of variance.

These procedures were implemented to compare males of Group A vs

males of Group B, females of Group A vs females of Group B, and all of

Group A vs all of Group B on the MMPI and 16PF. The data from the EPI

were not included due to the fact that some subjects did not complete

the EPI.

Finally, a rather innovative analysis technique was used which was

adopted from Marks and Seeman (1963) and their technique of grouping

MMPI profiles, e.g., "4-9" profile, "6-8" profile, etc. The exact

nature of the technique used in the present research was fostered by

the author's belief that it is the nature of all data to be patterned.

This patterning may be occluded by some statistical techniques. The

procedure itself can best be explained by example. The answer sheets

of the 16PF (Form A) have an edge along which the scores for each scale

are recorded. These edges were aligned for both Group A and Group B

separately so that the experimenter could easily "eyeball" the continua

of the scales. The objective was to permit a determination of three

natural divisions (an explanation for the choice of three divisions will

follow) or separation points for each scale taken one at a time. First

Scale A scaled scores were aligned from least to greatest for each group

(on the 16PF, the scaled scores range from 1 to 10). If 7 to 10 or so

subjects in one group had scores greater than or equal to 8 (or some

other value), then they were set aside as a cluster. A second cluster
might be formed from 7 or so subjects with scaled scores between 5 and
7, and a third cluster composed of scores less than 5. The same pro-
cedure would be carried out independently for the other group. The
objective then became to determine if, for example, the cluster defined
by the rule, Scale A greater than or equal to 8 for Group A could be
differentiated from the cluster defined by the rule Scale A greater than
or equal to 8 for Group B. Frequently it would happen that the Group A
cluster would contain greater or fewer Ss than the Group B cluster.
This was desirable since the object was to find factors which would
separate the groups. Suppose 10 Ss in Group A had scores greater than
or equal to 8 on Scale A and 6 Ss in Group B had scores greater than or
equal to 8 on Scale A; then the experimenter would proceed to examine
each of the other 15 scales comparatively to see if one or more of them
could serve to further segregate the groups. It might be found that
the Group A cluster could be specified by the following "rule": Scale
A is greater than or equal to 8, Scale N is less than or equal to 5 -
total N in Group A conforming = 9 (a loss of one S from the original
cluster). However, if all but, say, one of the Group B Ss had N
greater than or equal to 6, then only that one subject would conform
to the rule: Scale A is greater than or equal to 8, Scale N is less
than or equal to 5. The result would be a rule or profile which fits 9
Ss in Group and only 5 in Group B, thereby effectively differentiating
the 2 groups. This procedure was carried out for each of the 16 scales
on the 16PF and a similar operation was undertaken for each of the 13
scales of the MMPI and the 3 scales of the EPI (although due to the

absence of some of these data, the results are not comparable). Although
the random permutations of such a procedure are enormous, over 2,000 for
the 16PF, correlations among the scales reduce the permutations since the
scales are not independent. It was reasoned that, whatever the case,
the "rules" would be quite descriptive of these data at a more sophisti-
cated level then comparisons of means and variances. Furthermore, they
would describe the data in such a manner that subsequent research efforts
would have more specific guidelines. This harkens to previous statements
as to the nature of exploratory research and the fact that specific
hypotheses with respect to patterns on the personality tests were pre-
cluded by the lack of such guidelines.

The division of three clusters per scale per group was adopted simply
because each group contained either 24 or 25 Ss, and dividing 24 Ss by
three yields 8 Ss, a large enough approximate number to allow differen-
tiation between groups if a second scale could be found which, together
with the first scale, would comprise a "rule" or profile descriptive of
one group but not the other. Eight Ss was the average with more or less
per cluster, depending on the range of scores for a particular scale and
how the scores seemed to be grouped.

Some criterion was necessary to help decide which rules were dis-
criminating enough to bear reporting. It was decided to select those
rules in which, if the distribution of subjects were placed in a 2 x 2
Chi-Square contingency table, the distribution would be significant at
the .05 (two-tailed) level using Yates' correction for continuity. Some
examples of the minimally qualifying distributions are: 6-0 (i.e., 6 Ss
from Group A but 0 Ss grom Group B fit the rule), 0-6, 7-1, 1-7, 8-1, 1-8,

9-2, 2-9, 10-3 and 3-10. Actually, since the vast majority of the rules
are directional, this .05 criterion is conservative in that the same
distributions for a one-tailed test would be significant beyond the
.025 level. However, since this procedure is a criterion for reporting
rather than a legitimate statistical test, this is not a statistically
relevant observation.

The "rules" for the MMPI and 16PF are reported in both tabular
and graphic form. The EPI rules are reported in tabular form. The graph
for each rule shows the plotted mean values for each of the other scales
in addition to those scales which define the rule. This enables one to
see the overall "profile" of the set of subjects who fit the rule. In
brief, if a rule is written as "C ≤ 6, M ≥ 7: 1-7," it means that 1 S
in Group A and 7 Ss in Group B scored 6 or less on Scale C (16PF) and 7
or more on Scale M (16PF). However, on the graph, the means of the 7
Ss in Group B would be plotted for all 16 scales of the 16PF, thus showing
the entire profile for these 7 Ss. For simplicity, the Ss in Group A
who conformed to the rule (called a "Group B rule" because it defined
characteristics primarily of that group) would not be included in these
calculations and this profile. It was felt that this procedure would
prove extremely useful to future researchers. In addition, it is a
research analysis and reporting technique which has not been encountered
by this author and although it entails considerable time and effort,
might be a useful model for other researchers investigating personality
variables. The technique is adaptable for computer programming. These
graphs are explained in more detail in the Results Section.

CHAPTER IV

RESULTS AND DISCUSSION

The results of the statistical analyses and the multiple discriminant

analyses are presented in the tables. Comparisons were made between all

of Group A (harmonious horoscopes) and all of Group B (discordant horo-

scopes), females of Group A and females of Group B, and males of Group A

and males of Group B for the MMPI and 16PF.

The overall statistical results suggest that detectable differences

do exist between the two groups and that the MMPI is more sensitive to

these differences than the 16PF. The results also suggest that the

females of the two groups are more different than the males.

MMPI

The Two-Way Multivariate Analysis of Variance (MANOVA) on the over-

all MMPI profiles yielded significance, beyond the .20 level chosen for

rejection of the null hypothesis, on the group main effect and the

interaction effect. The differences between Group A and Group B were

significant at the .060 level (F = 1.950, df = 13, 33), and the group

x sex interaction was significant at the .160 level (Table 1a).

Table 2 shows the analysis of variance results for males of Group A

vs males of Group B and females of Group A vs females of Group B. The

overall differences for males were not significant (F = 1.02, p = F = .472)

but the overall differences for the females were significant (F = 2.49,

p ▸ F = .077).

The results of the multiple discriminant analysis program (Table 3) yielded essentially equivalent results with a high proportion of correct classifications into the appropriate group for the females and a lower proportion for the males. The classifications were very accurate for all of Group A vs all of Group B, more accurate than simply combining the separate results for males and females. The group x sex interaction effect and the absence of a main effect for sex account for this result. Appendix B lists the discriminant weights for each of the scales of the MMPI.

It is clear that differences do exist between the MMPI profiles of Group A and Group B. A multiple linear regression prog ram was used to statistically help look at the nature of these differences (Table 2). This program surveys the individual scales of the MMPI to determine if they have all covaried in yielding the overall F ratio and, hence, are all equally good predictors, i.e., yield redundant information. The significant F ratios, then, indicate that those particular scales account for a unique, though not necessarily large, portion of the total variance. Appendix C lists the meanings for each of the scales. For the males, Scale 1 (Hypochondriasis) is the only scale significant (p ▸ F = .087). For the females, Scales K (p ▸ F = .075), 7 /Psychasthenia (p ▸ F = .064)7, 9 /Hypomania (p ▸ F = .088)7 and 0 /Social Introversion (p ▸ F = .018)7 are significant (α = .20). For all of Group A vs all of Group B, Scales L (p ▸ F = .056), F (p ▸ F = .193), 4 /Psychopathic Deviance (p ▸ F = .040)7, 7 /Psychasthenia (p ▸ F = .062)7, 9 /Hypomania (p ▸ F = .042)7 and 0 /Social

Introversion (p ⋗ F = .117)_7 are significant.

To provide further statistical information on the individual scales, a two-way analysis of variance was run on each of the scales separately. The results are presented in Table 4a. Significant group main effect differences were found for Scales L (p ⋗ F = .020), K (p ⋗ F = .069), 5 /Masculinity-Femininity (p ⋗ F = .045)_7 and 9 /Hypomania (p ⋗ F = .185)_7. Group A was lower than Group B on Scales L, K and 9, and higher on Scale 5. Significant group x sex interactions were found on Scale 1 /Hypochondriasis (p ⋗ F = .068)_7 and Scale 3 /Hysteria (p ⋗ F = .143)_7, the Group A males lower than Group B males on both and the Group A females higher than Group B females on both.

These statistical results are congruent with the overall inpression one gets from looking at the mean profiles for the two groups (Graphs 1AB and 2AB - MMPI series). The most striking factors in these graphs are that there appear to be large differences on the Masculinity-Femininity Scale (5) and obvious differences in the validity profile configurations. The Scale 5 differences indicate that both males and females in Group B tend to conform more closely to their appropriate sex role. The validity profile configurations suggest that Group B is less likely to admit to problems - they are higher on Scale L, lower on Scale F, and higher on Scale K. For the males, the Group B profile shows a "V" configuration on Scales 1, 2 and 3. This profile pattern suggests Group B males may be more passive than Group A males, but oddly, they show fewer feminine/aesthetic interest pa tterns than Group A males, as indicated by the lower score on Scale 5 for Group B males. Interestingly, the two high points for the Group B females are Scales 4 and 9. This,

together with the validity profile configuration, suggests denial of problems. This pattern is generally more common in males, whereas the "V" on Scales 1, 2 and 3 noted above for Group B males is generally more common for females. The Group A females appear to admit to more pessimism - Scale 2 - and worry - Scale 7. Since these tests were administered furing the final examination period for the second summer session, it may have happened that, through sampling error, more of them were experiencing exam stress.

The graphs composed of subjects who fit the "rules" which were found to discriminate between Group A and Group B (see Procedures Chapter) are in the graph section. They permit one to look at clusters of data which have common adherences and in that sense are far more refined in terms of the information they yield. Overall, they are congruent with the statistical results with the exception that Scale 2 (Depression) was found to be highly descriminating - a fact missed by the statistical analyses because of the large variance of this scale.

Before discussing these results, it should be noted that a transformation was necessary on Scale 5 (Masculinity-Femininity) because the clusters defined by the rule included both male and female subjects. Since the mean for males differed significantly from the mean for females in Group A and Group B on Scale 5, the mean for Scale 5 for a given cluster of subjects would be subject to graphic distortion if the cluster was composed of more subjects of one sex than the other. To eliminate this potential distortion, a transformation in Scale 5 scores, which was essentially a z-score transformation, was made. Male and female scores were changed to deviation scores about their respective means.

T-score 60, which was approximately the mean of the combined male and female Scale 5 scores, was set as the mean for Scale 5 and the deviation score for each subject was added or subtracted as appropriate to form that subject's transformed Scale 5 T-score. These transformed scores were also used in the previous statistical analyses as a matter of convenience and to eliminate the bimodal distribution on Scale 5 which would have yielded a spurious variance inflation due to sex.

The graphs of the various sub-groups defined by the "rules" require some explanation. To the left of each graph is the "rule," e.g., Hs ≤ 50, D ≤ 60. Beneath the "rule" is the number of Group A subjects who fit it and the number of Group B subjects who fit it, e.g., 7-1, indicating 7 Group A subjects and 1 Group B subject, or 1-8, indicating 1 Group A subject and 8 Group B subjects. The "A" series of graphs will show distributions all favoring Group A, e.g., 6-0, 7-1, 8-1, etc. The "B" series will show distributions all favoring Group B, e.g., 0-6, 1-7, 1-8, etc. The ratio shown beneath the distribution is the ratio of male subjects to female subjects, e.g., 5:2, 4:3, 4:5, etc. For the "A" series, the ratio includes only the Group A subjects. For the "B" series, the ratio includes only the Group B subjects. On the graph itself, one can notice that each scale has a heavy horizontal slash at some location along the scale. This slash marks the grand mean of all 49 subjects combined for that scale. This permits one to characterize the sub-group profile in terms of deviations from these grand means. If the deviation is great for a given scale then that particular sub-group is identified as a primary source of a unique portion of the variance. For example, if a "B" series sub-group mean for Scale 4 is

quite higher than the grand mean for Scale 4, and one assumes that Scale 4 scores are not bimodal, one can deduce that there is a low probability that a sub-group of Group A will show a similar pattern - in fact, there is a higher probability of the opposite, i.e., low on Scale 4. Yielding this kind of information is the chief advantage of these graphs. It permits one to speculate discriminately about the characteristics of Group A vs the characteristics of Group B because one is able to see the peculiar manner by which each contributed to the variance. Rather than seeing that Group B is slightly higher on Scale 4 than Group A, one sees that a sub-group of Group B is quite high. Perhaps another sub-group of Group B will be very high or very low on some other scale, but moderate or low on Scale 4. Detecting the form of this within group patterning is important since it mitigates the tendency to characterize one group as being high on this scale, low on that scale, etc., and generalize this thinking to individual profiles, e.g., concluding that, because Group A is significantly higher than Group B on Scale 5, it is therefore a characteristic of people with harmonious horoscopes to be high on Scale 5, when, in fact, it may be more accurate to conceive that people with harmonious horoscopes are very high on Scale 5 only when other scales have a given pattern. In the case of these data, the sub-groups are homogenized by the rules on the left of the graph. The two scales that define a given rule may or may not yield means which differ widely from the grand means for those scales; nevertheless, they set the conditions under which any significant deviations or patterns occur. This kind of specificity is useful in most research, but it is necessary in pilot work if the pilot work is to provide guidelines for replicative

research.

The information yielded by the graphs is occasionally redundant.
Some sub-groups are composed of a high proportion of the same subjects,
so one might expect the shares of the profiles to be similar even when
the rules which specify the profiles involve different scales. The
sub-groups in which the same 6 or more subjects overlapped or repeated
are discussed as a group, since the profiles generated contain little new
or different information. The following is a brief comment about each
unique sub-group for Group A and the same procedure will follow for
Group B.

1. Graphs 10, 11, 13, 14 and 15 in series A show an inverted
   "V" validity profile and elevations on Scales 1, 2, 7, 8
   and 0 with Scale 9 down slightly. Scale 2 is the high
   point. Clinically, this kind of profile suggests a mod-
   erate situational stress syndrome with a good prognosis
   for change. There are proportionately more females in
   these sub-groups.

2. Graphs 7 and 8 are similar to the above, but Scale 1 is not
   so elevated.

3. Graphs 12 and 20 show a generally lowered profile except
   for slight elevations on Scales 2, 5, and 0. Clinically
   it suggests a group of somewhat serious, retiring, con-
   ventional people who are relatively stress-free. Scale
   5 is the high point.

4. Graphs 17 and 19 show slightly high "floating" profiles
   with only Scale 9 down. Clinically, they also suggest
   an adjustment reaction. Scale 4 is the high point and
   the sub-group is heavily loaded with females, suggesting
   family or career struggles and resentment.

5. Graphs 4 and 6 show a very high elevation on Scale 5, with
   elevations also on Scales 2, 9 and 0. The L and K Scales
   are quite low with the validity configuration showing a
   very sharp inverted "V." Scales 3 and 4 are low. Clin-
   ically, the profile suggests a psychologically sophisti-
   cated group of people who are unafraid to "let it all
   hang out," prefer solitude and have plenty of energy
   to mobilize themselves. Such a group may be in therapy
   as a vehicle for insight. This group shows a loading

of females.

6. Graphs 1 and 16 show a very high floating profile (but
    all mean T-scores below 70) which suggests a group
    experiencing relatively strong situational stress with
    depression, worry and anger. Scale 2 being the high
    point and the validity profile shape suggest a good
    prognosis as the situation eases. This could be con-
    strued as a "cry for help" profile such as one finds
    in persons experiencing acute job or marital stress.

7. Graph 2 is similar to Graphs 1 and 16 above, except that
    Scales 7 and 8 are higher, indicating more worry and
    perhaps a greater orientation to abstract belief systems,
    e.g., religion, as a means of dealing with the stress.

8. Graph 3 is high on Scales 5, 2, 7 and 0 and low on Scales
    4 and 9. Clinically, it suggests a group of people who
    are slightly introverted and rather prone to worry and
    pessimism - perhaps fussiness, and who are not likely to
    need to act-out impulses. They may be compulsive with
    contemporary attitudes.

9. Graph 5 is very high on the F Scale and Scale 0, and high
    on Scales 2, 7 and 8. This suggests a group of people who
    are slightly eccentric in their views, seclusive, serious
    and worrying.

10. Graph 9 is heavily loaded on males. It is very high on
    Scale 5 and low on Scales 3 and 4. Scales L and K are
    also low. It suggests a group of people who have interest
    patterns which do not conform to the stereotype for their
    sex, who are not likely to bear resentment or act-out and
    who are psychologically sophisticated, independent, en-
    thusiastic and creative.

11. Graph 18 is similar to Graph 9, but Scale 5 is lower and
    Scale 7 is higher, suggesting this group is less uncon-
    ventional and more worrying than the group in Graph 9.

The following statements apply to the "B" series of graphs:

1. Graphs 4 and 13 are very high on Scale 1 and K. They
    are also high on Scales 4, 3 and L and low on Scale 2.
    Clinically, the profiles suggest slight egocentricity,
    immaturity, resentment, defensiveness and lack of in-
    sight. The profiles are loaded on males. Scale 4 and
    9 are the high points. These profiles show the "V"
    configuration on Scales 1, 2 and 3.

2. Graphs 16 and 17 are similar to graphs 4 and 13 above

except that Scale 4 is not high, suggesting less resentment, and the profiles include more females. The profile suggests a tendency to displace stress into somatic symptoms.

3. Graphs 15 and 20 are loaded on males on all scales but 9, 1 and K are down, Scales 5 and 8 being particularly low. Relative to the grand means, this suggests a strong conformity, concrete thinking, action orientation and a set to "look good" on the test, i.e., a denial of anything perceived as deviant. Scale 9 is the high point.

4. Graph 1 is very high on Scales 4 and 1, slightly high on Scale 2 and slightly low on Scale 9. Scales L and K are high. This profile suggests defensiveness with anger and hostility which result in somatic distress and is a chronic personality characteristic. Graph 8 is even high on Scale 4, and in addition, is lower on Scale F, indicating more anger and denial.

5. Graph 2 shows an inverted "V" validity configuration with the only clinical scale elevation on Scale 1 and very low on Scale 5. This has some similarities to the "K+" profile and is associated with strong denial of problems or weaknesses and general lack of insight, wanting to "look good."

6. Graph 3 is very similar to graphs 17A and 19A in terms of being a slightly floating profile which suggests an adjustment reaction; however, Scale 4 is slightly higher and the validity configuration is very different, being high on Scales L and K and slightly low on Scale F. This suggests more denial and rigidity and, thus, prognosis for change may be poorer.

7. Graph 6 is high on Scales 9, 1, L and K and slightly low on Scales 5, 8 and 0. This suggests a group of people with high needs for activity and who see themselves in a favorable light, while being somewhat conventional in interests. Scale 9 is the high point.

8. Graph 7 is similar to Graph 6 above, except for perhaps being less conventional. Scale 9 is the high point, followed by Scale 4. Scale 2 is low, indicating the possibility of hyperactivity and the validity configuration suggests more frankness.

9. Graph 9 is similar to the above, as are Graphs 11 and 21.

10. Graph 10 is very high on Scales K, L and 1 and low on Scale

9. It is also high on Scales 3 and 4, Scale 4 being the high point. The profile suggests mild situational stress in a rigid, defensive, group of people who displace anger and resentment into somatic complaints.

11. Graphs 5, 12 and 21 show profiles low on most scales with the exceptions of Scales L, 1, 9 and 6. The profiles suggest a very conventional, conforming, stress-free group with a relatively high energy level.

12. Graph 14 is similar to Graph 12, being slightly higher on Scale 6 and very low on Scale 5, suggesting a strong conformity to sex stereotype.

13. Graph 18 is high on Scales L, K, 2, 4, 6, 7, 9 and 0 but very low on Scale 5. Scales 4 and 9 are the high points. This is one of only two graphs in series "B" in which an elevation occurs on Scale 0. It is also the only graph in either Series A or B in which there are clear peaks on Scales 4 and 9. The very low Scale 5 score in conjunction with this would suggest a high probability of acting-out behavior which would be in keeping with the dictates of the cultural sex role, e.g., extra-marital affairs as behicles for the acting-out rather than being the result of shared interests and warmth. Since Scale 2 is also elevated, the possibility of alcohol abuse also exists. The peaks on Scales 4 and 9 suggest a chronic pattern nested within a situational disturbance, indicated by the elevations on the other scales.

14. Graph 19 is similar to Graph 18 above, but Scale 9 is very high, suggesting much more agitation and restlessness.

These profile descriptions apply to profiles in which no scales are critically elevated, although some of the individual profiles which contributed to them may be. The descriptions are, therefore, somewhat exaggerated and they cannot be said to apply to individual profiles. Nevertheless, they serve to accentuate the differences that occurred not only between Group A and Group B, but more importantly, the differences within each group. Within group differences are typically written off as due to sampling error, but again, for pilot research, this custom may be disadvantageous. In fact, it can be easily seen

Males
Group A
o——o
Group B
x---x

1AB
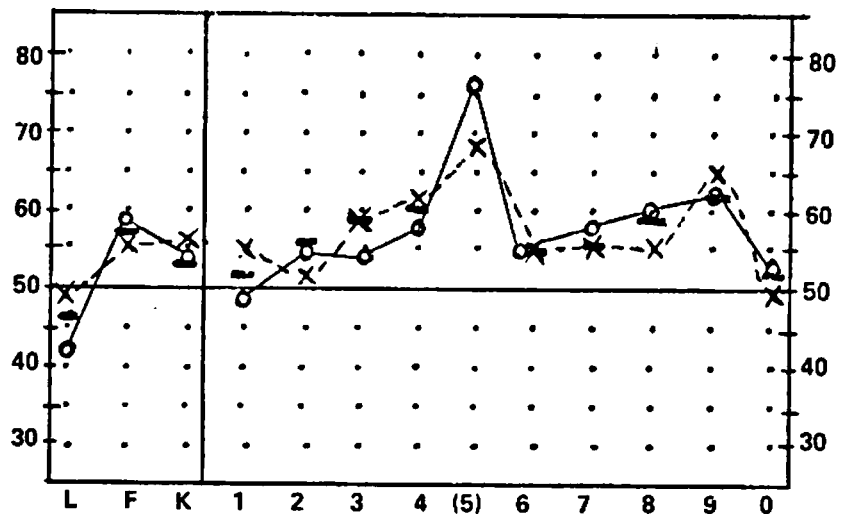
Females
Group A
o——o
Group B
x---x

2AB

L ≤ 44
Hs ≥ 50
9-2
4:5

1A

L ≤ 46
63 ≤ Sc ≤ 75
7-1
4:3

2A

53 ≤ F ≤ 70
Ma ≤ 58
9-2
4:5

3A
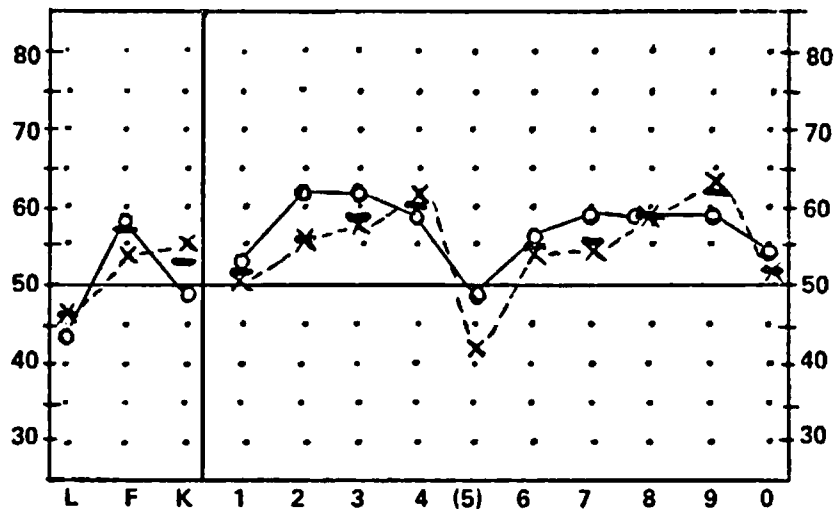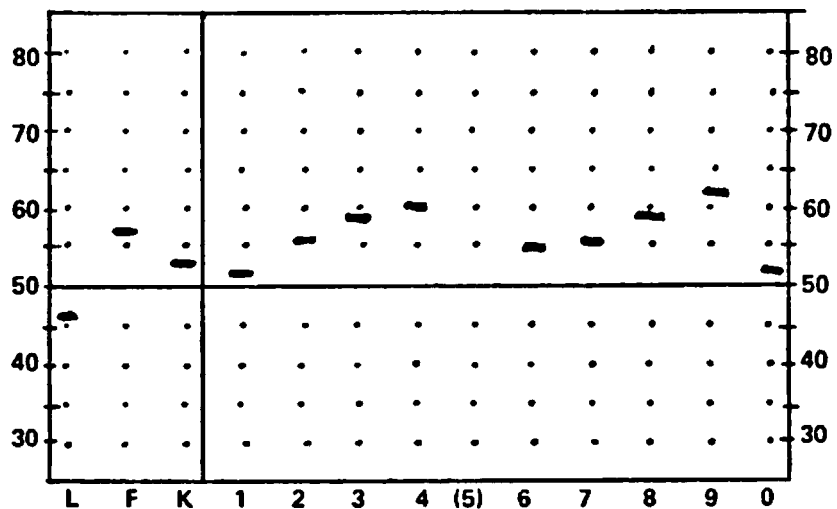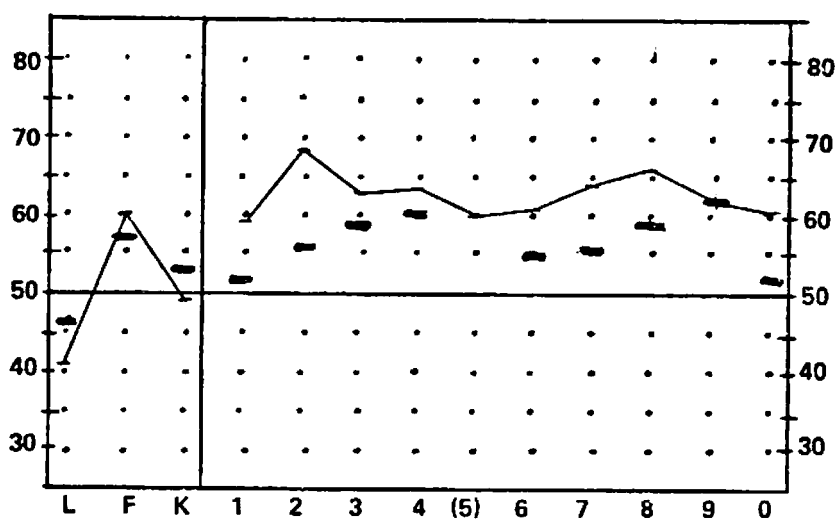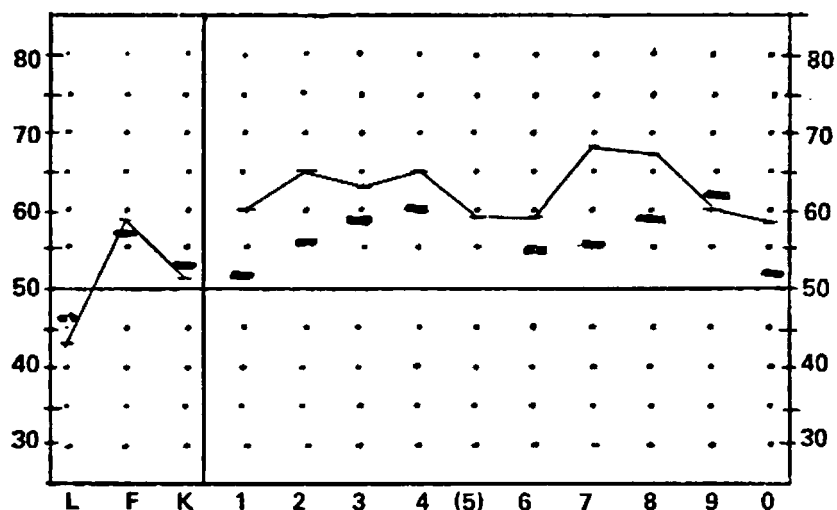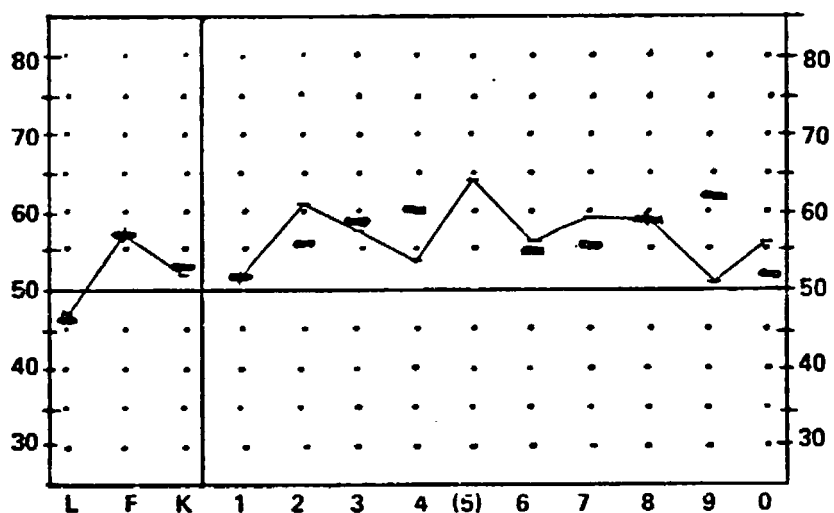
F ≤ 70
K ≤ 44
7-0
2:5
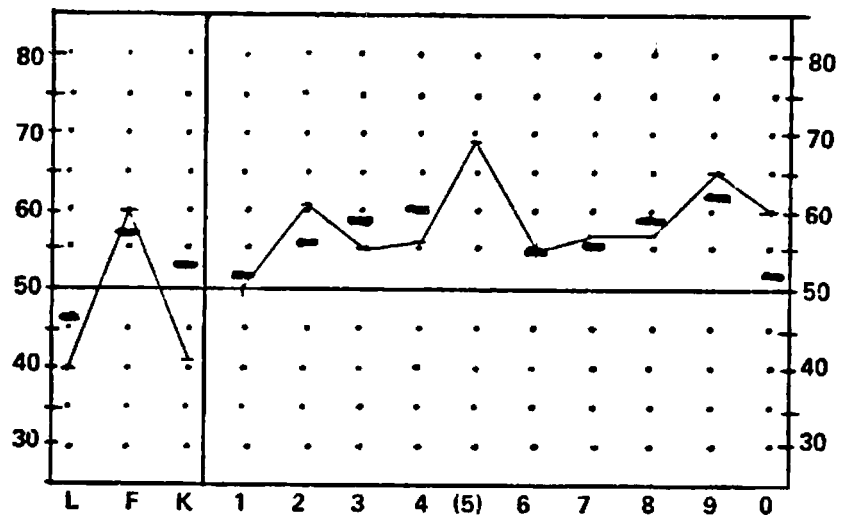
4A

F ≥ 60
Pt ≥ 56
8-1
5:3
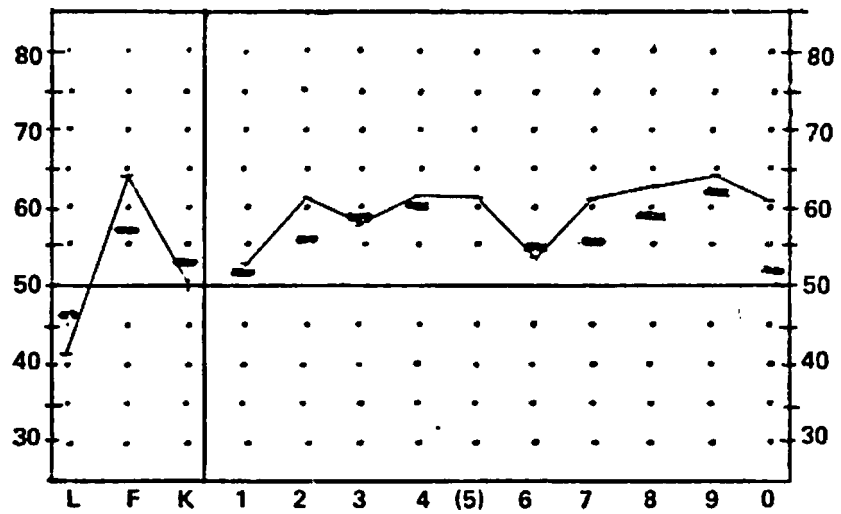
5A

K ≤ 46
Pa ≤ 62
7-1
3:4
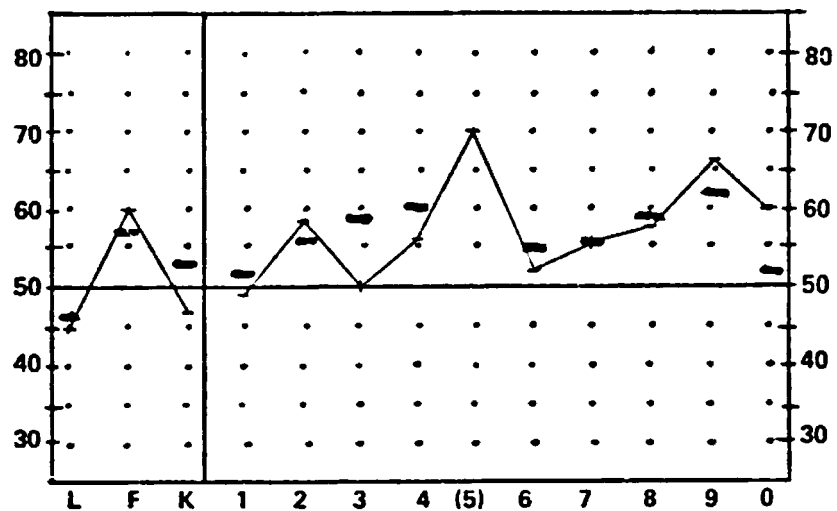
6A

48 ≤ Hs ≤ 57
Mf ≥ 70
10-2
4:6

7A

48 ≤ Hs ≤ 57
D ≥ 63
8-1
4:4

8A

Hs ≤ 60
Mf ≥ 78
9-2
6:3

9A
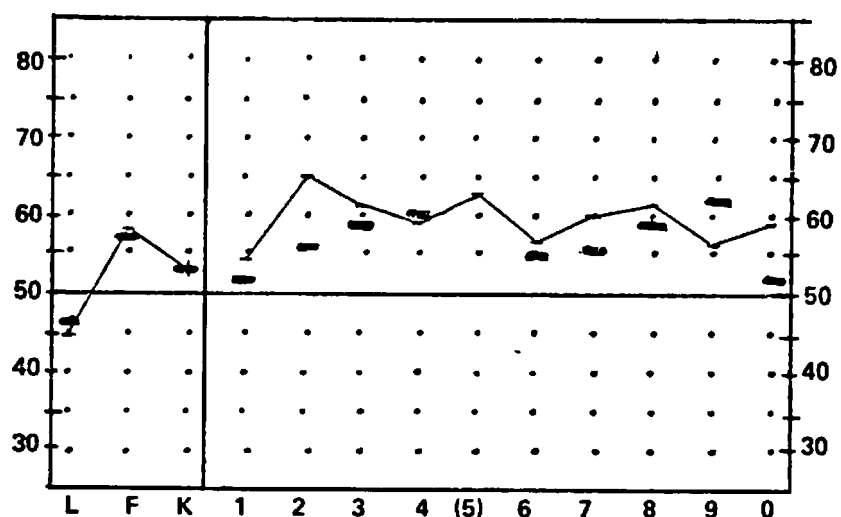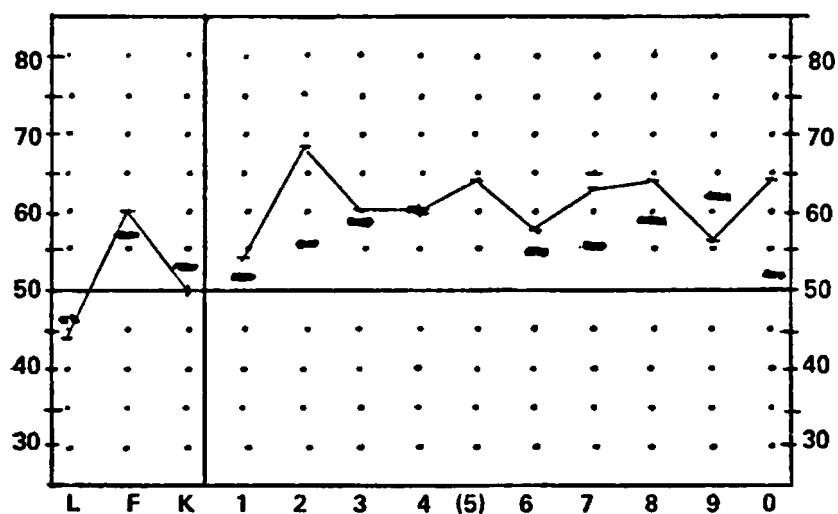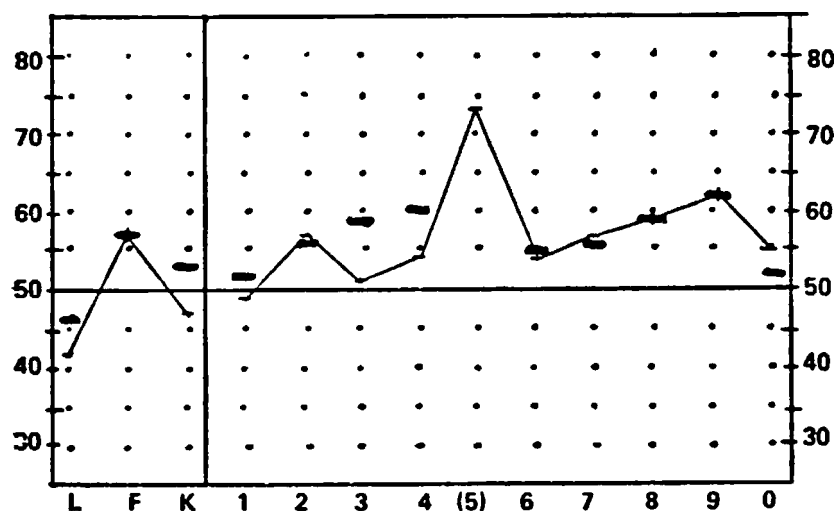
$60 < D < 75$
9-0
2:7
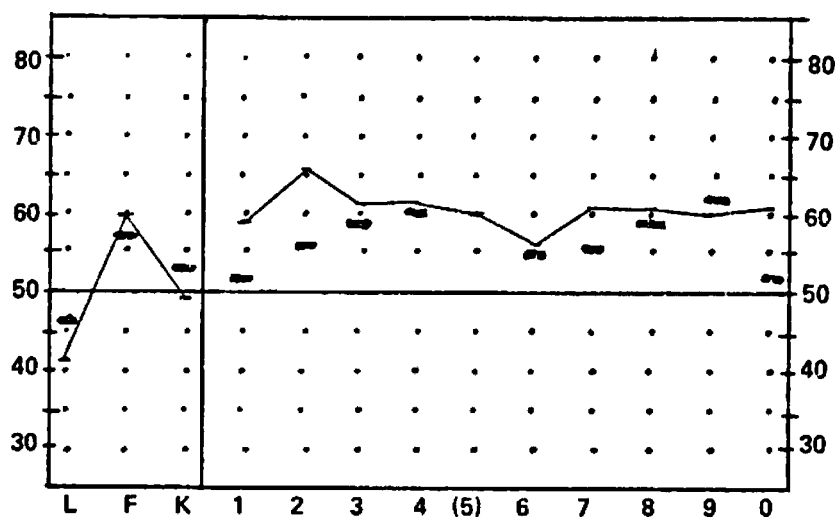
10A

$D \geqq 62$
$Pt \geqq 56$
9-2
4:5
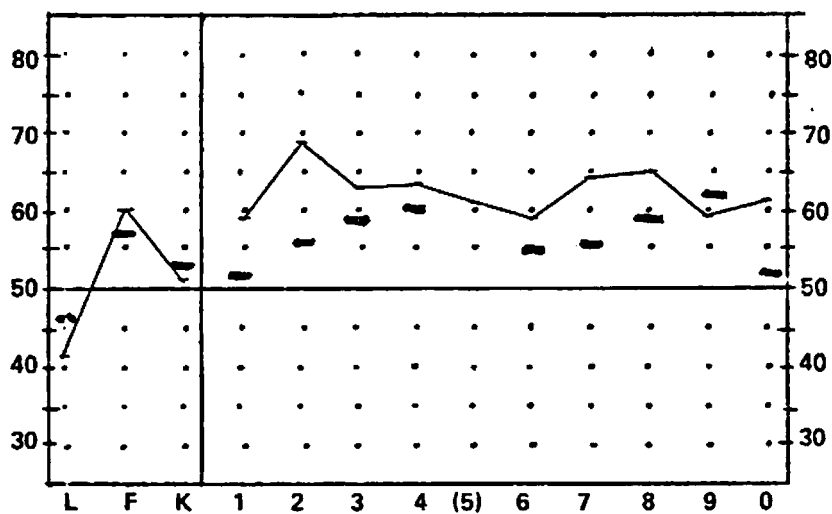
11A

$D \geqq 47$
$Pa \leqq 47$
7-1
3:4
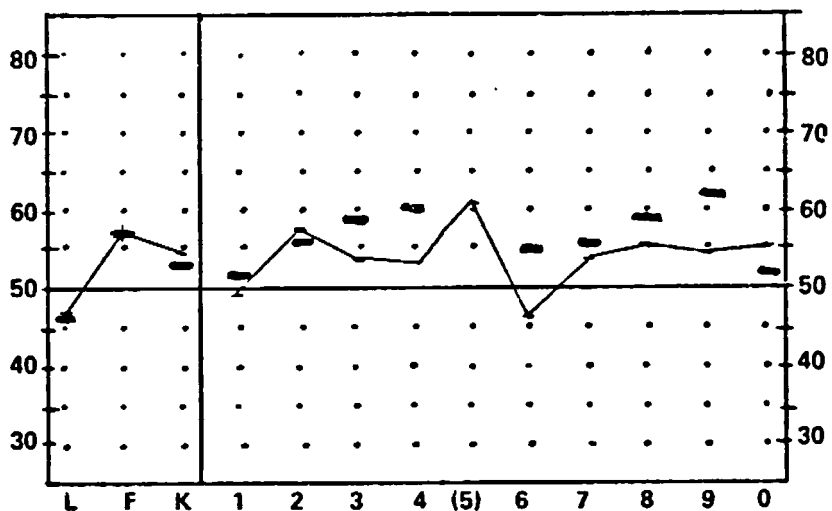
12A

D ≥ 60
Sc ≤ 70
8-1
2:6
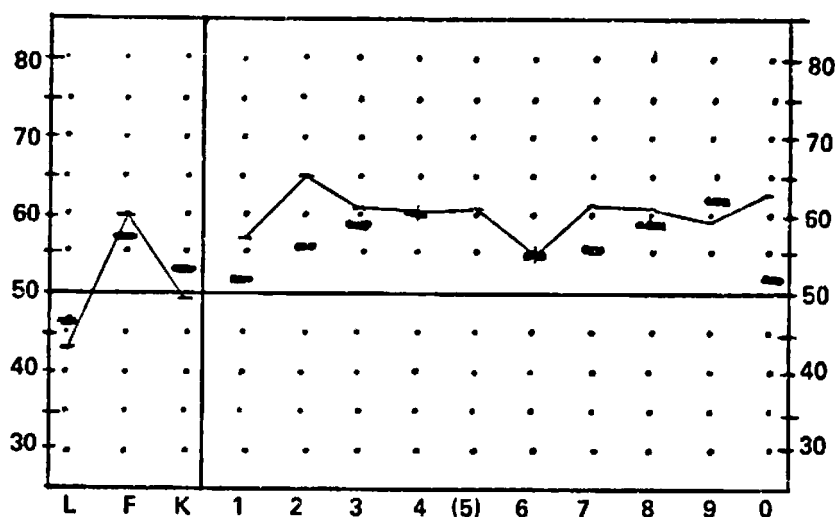
13A

D ≥ 60
Pd ≤ 70
8-0
3:5
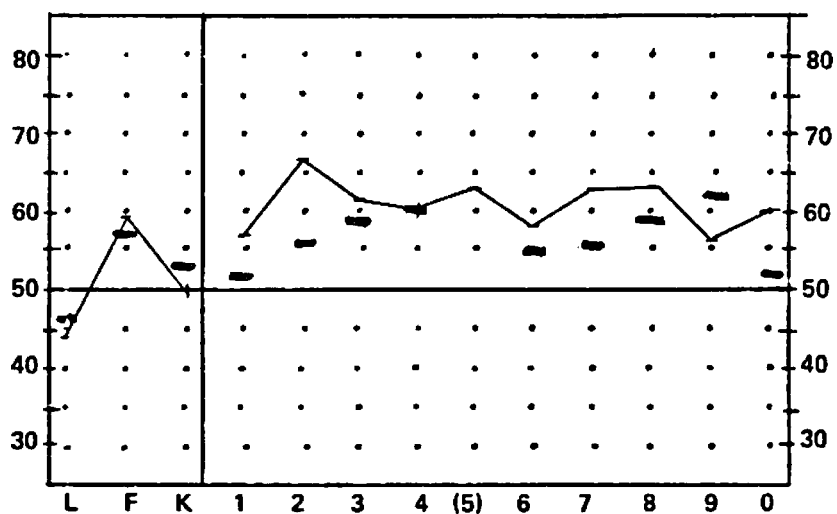
14A

D ≥ 60
Ma ≤ 70
9-1
4:5
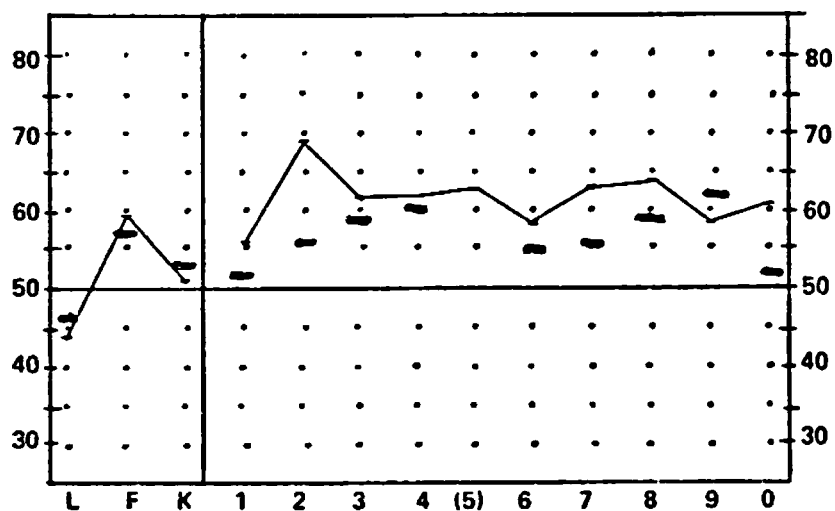
15A

D ≥ 60
50 < Si < 70
7-0
3:4
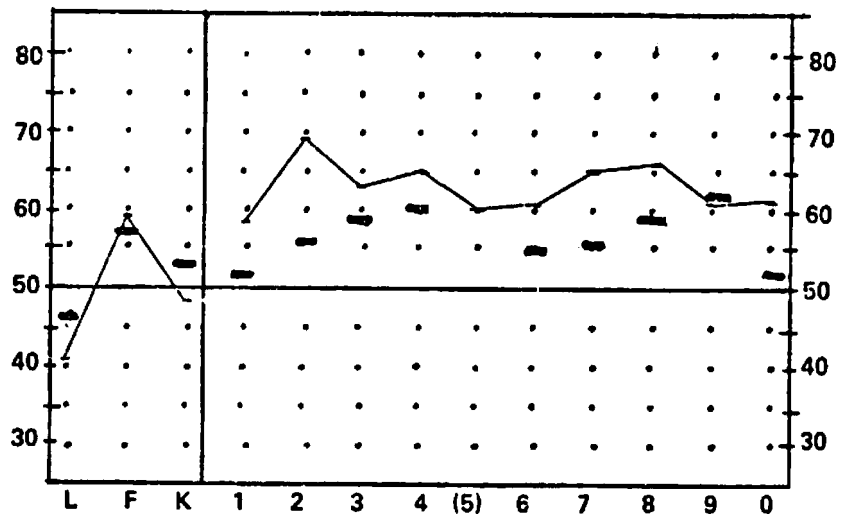
16A

Hy ≥ 59
70 ≤ Mf ≤ 74
8-1
2:6
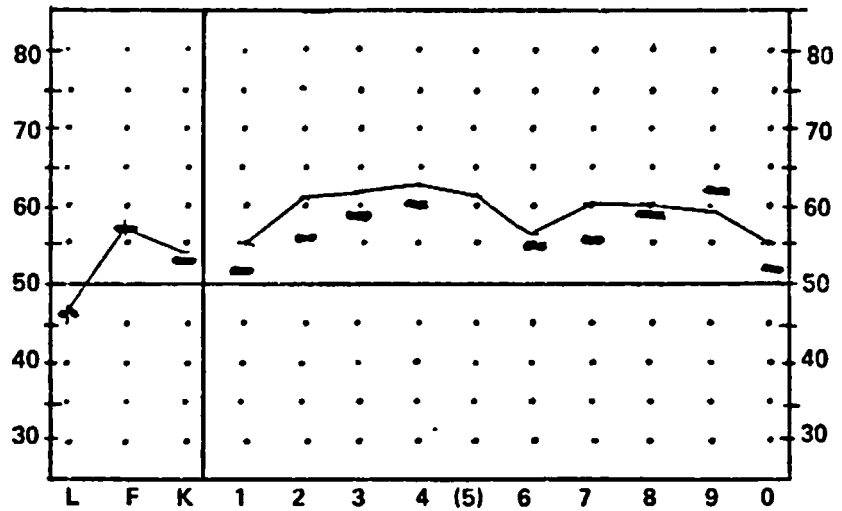
17A

Pd ≤ 64
Pt ≥ 56
9-2
6:3
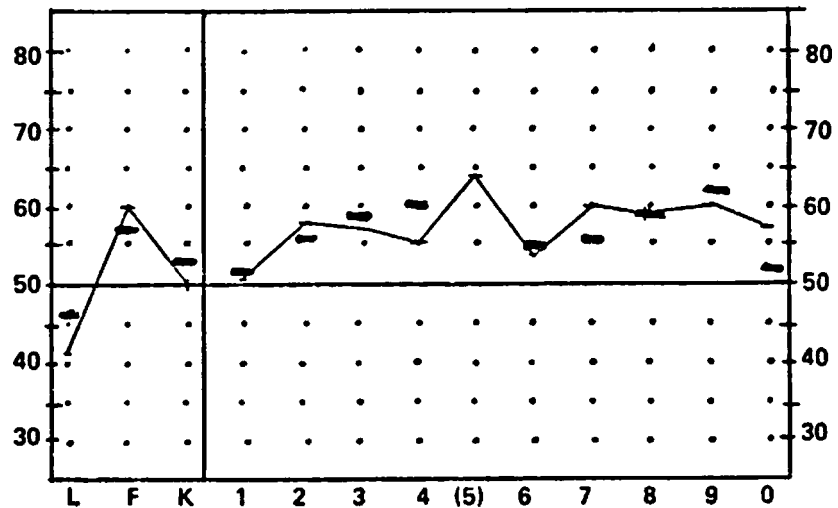
18A

70 ≤ Mf ≤ 74
Pt ≥ 55
7-1
2:5

19A

Pa ≤ 47
Si ≥ 47
6-0
3:3

20A
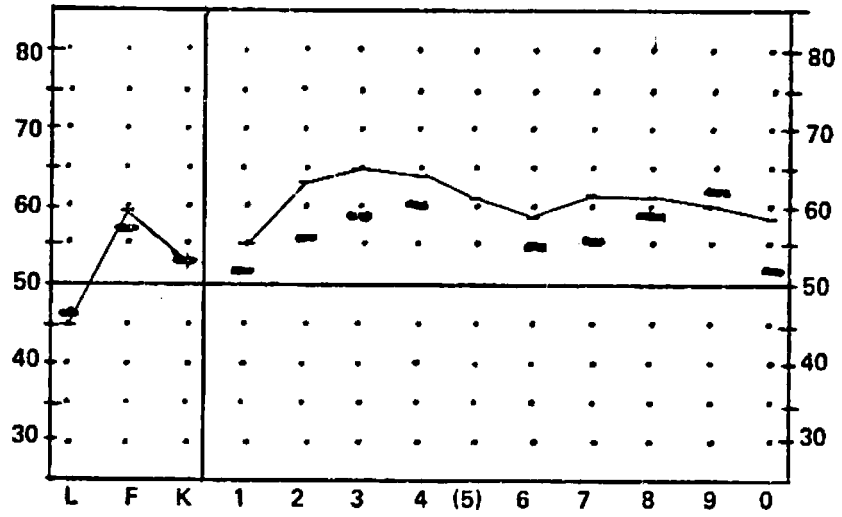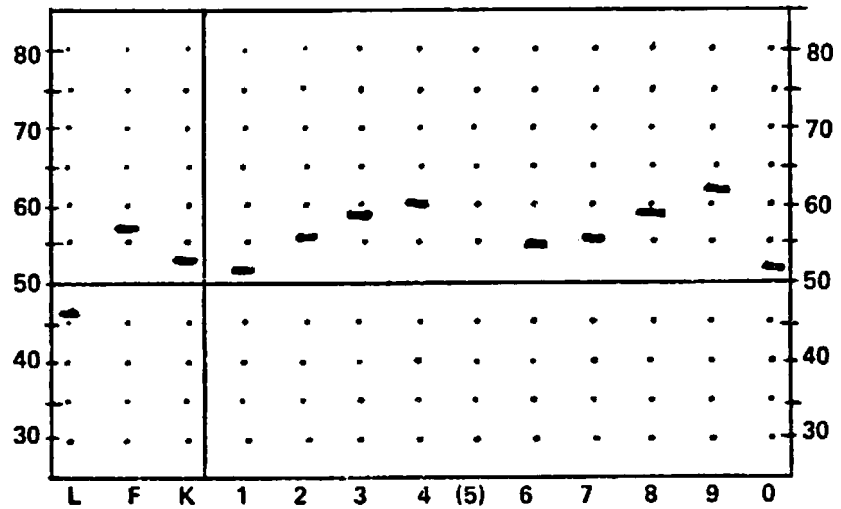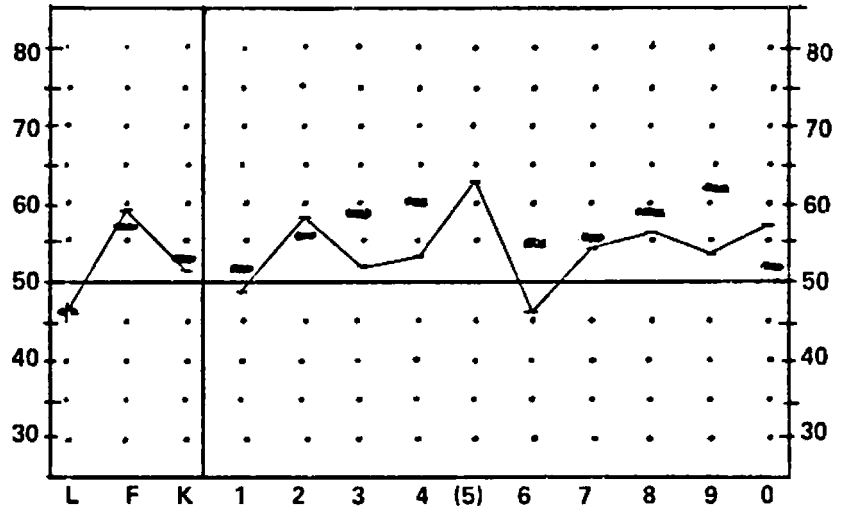
L ≧ 50
53 ≦ Pa ≦ 56
1-8
5:3
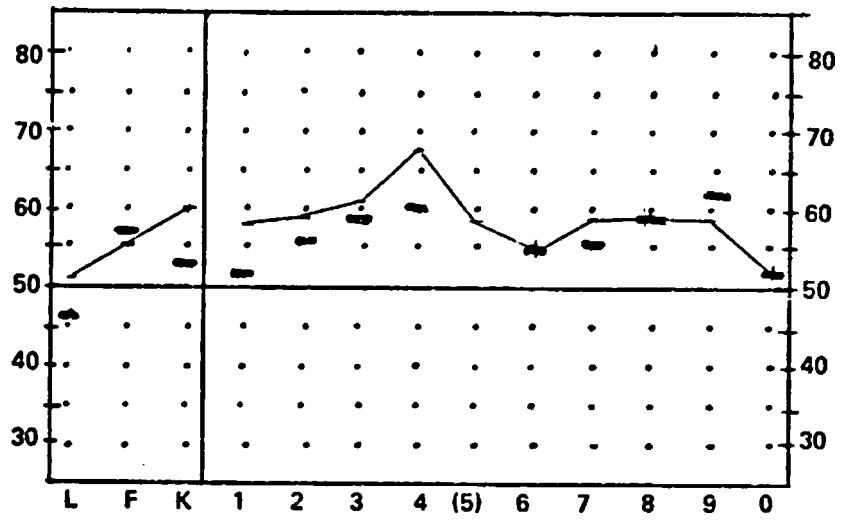
1B

L ≧ 50
F ≦ 53
1-7
4:3
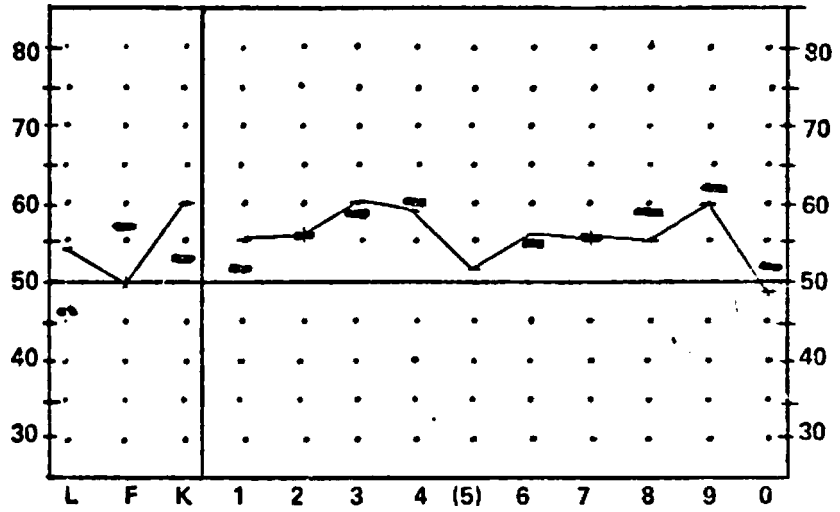
2B

L ≧ 50
O ≧ 49
0-6
3:3
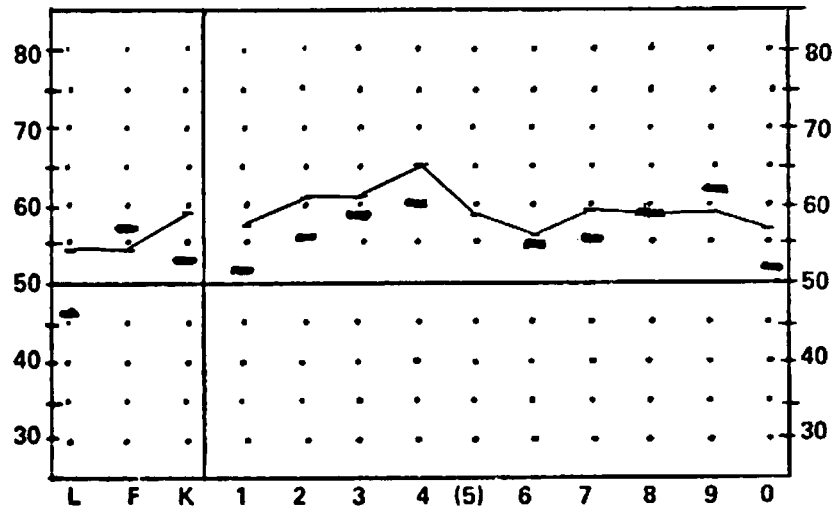
3B

L $\geq$ 46
Hs $\geq$ 57
1-7
5:2

4B

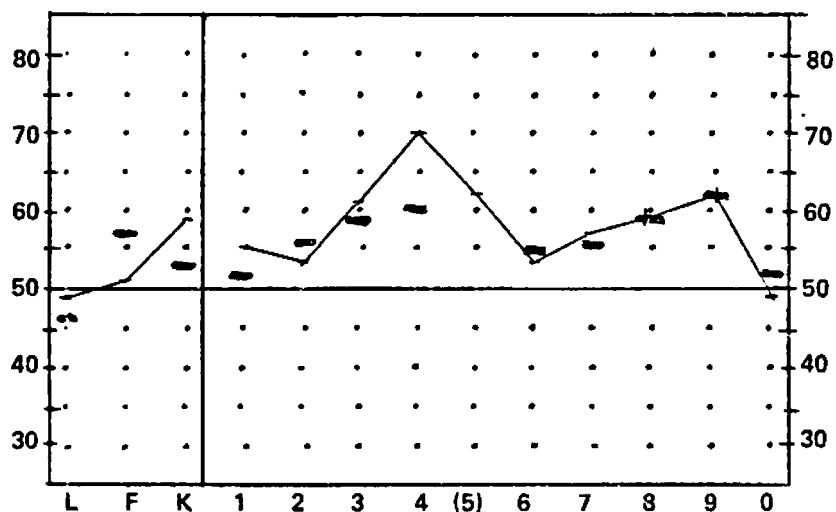L $\geq$ 46
Sc $\leq$ 53
1-7
4:3

53
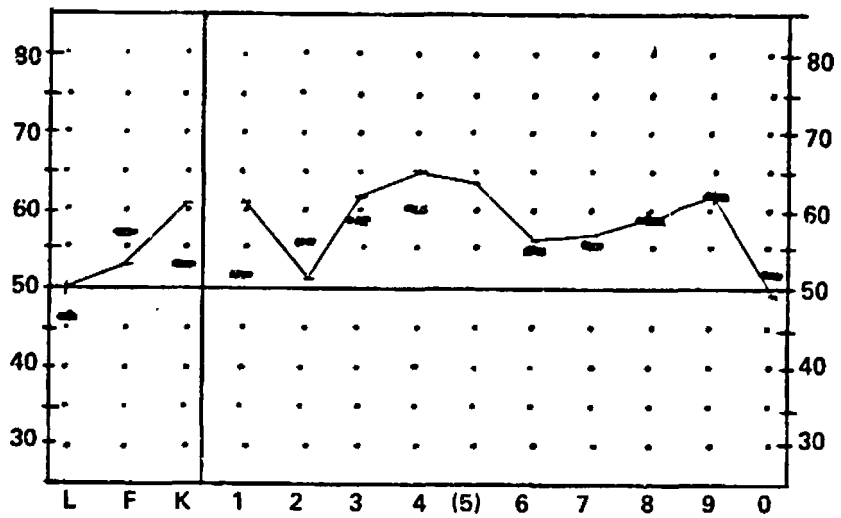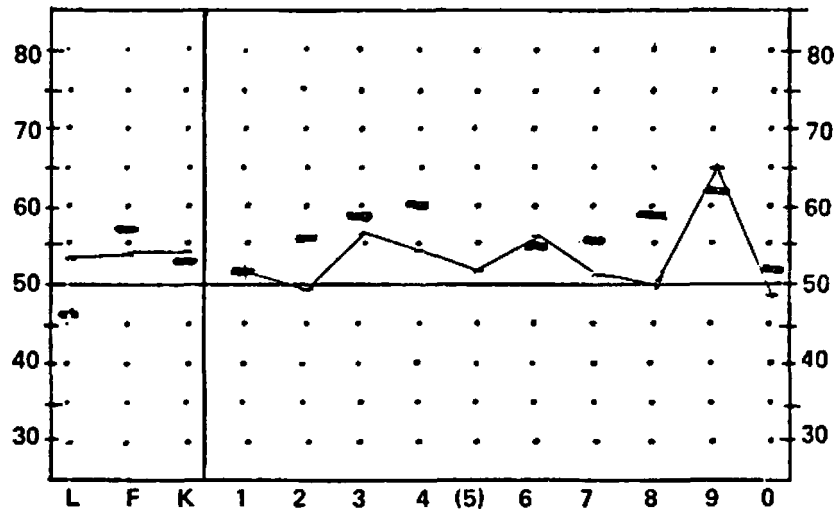
F $\leq$ 53
K $\geq$ 57
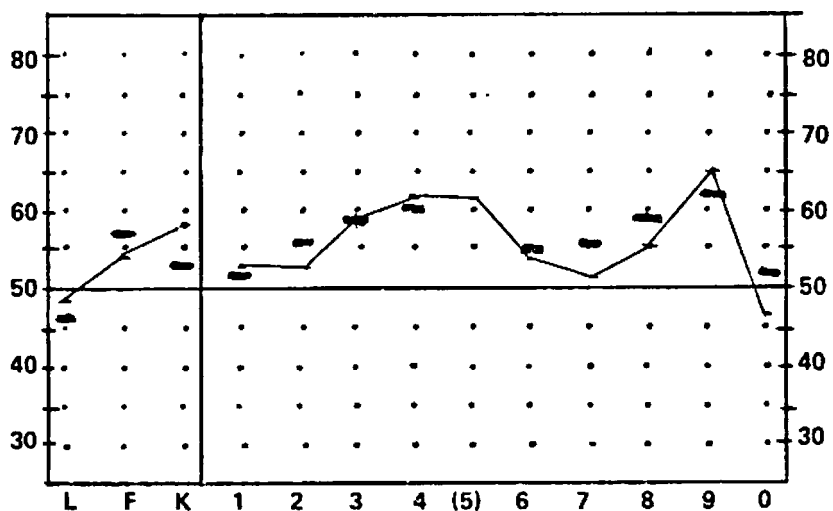1-8
4:4
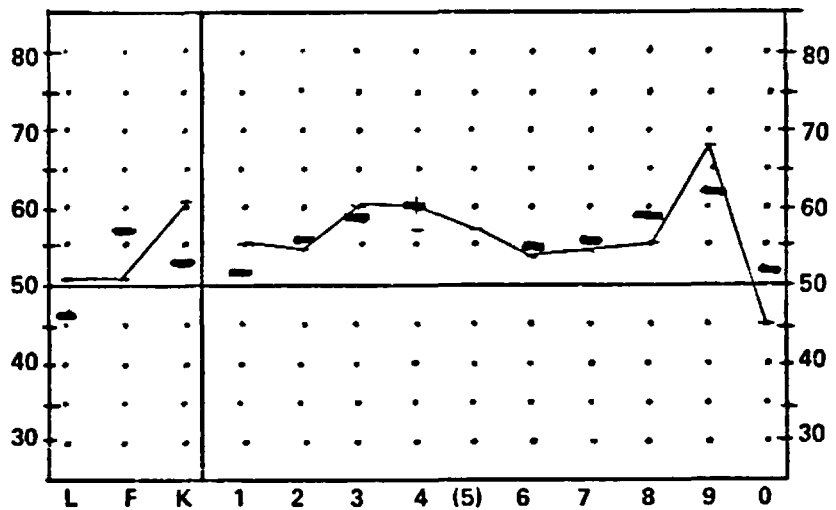
6B

$55 \leqq F \leqq 60$
$D \leqq 60$
2-10
6:4
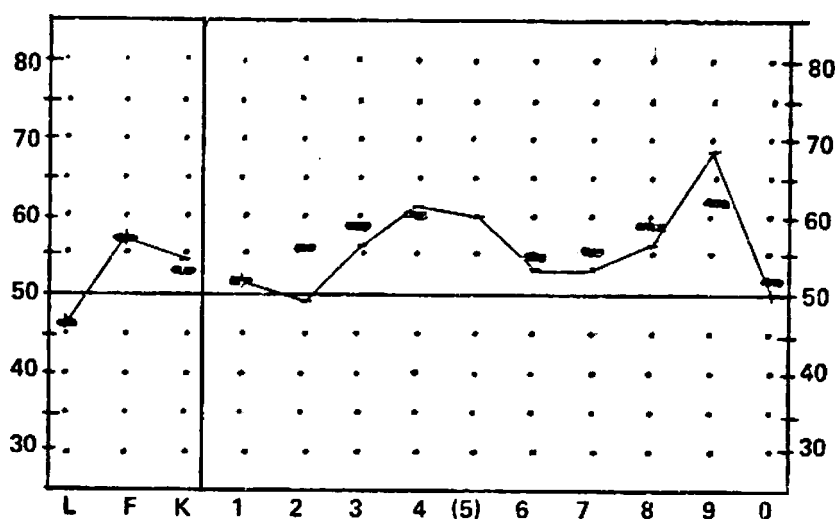
7B

$F \leqq 55$
$Pd \geqq 67$
1-7
3:4
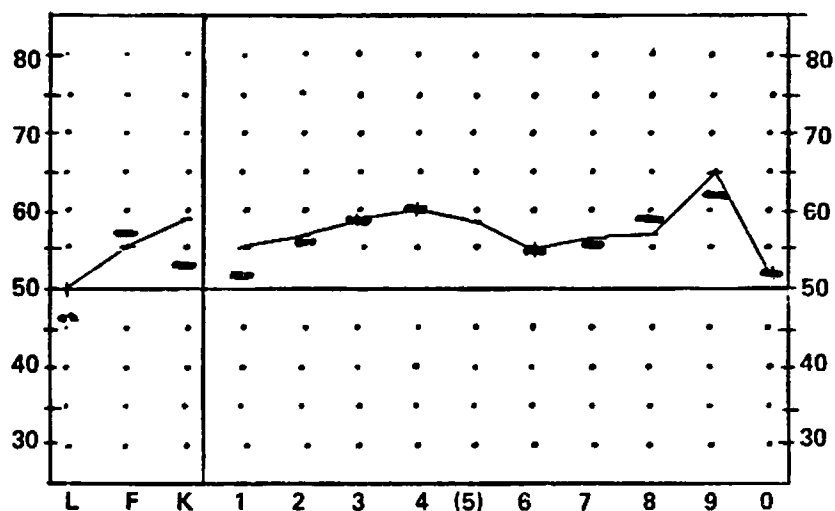
8B

$50 \leqq Pa \leqq 56$
$Si \leqq 50$
2-11
5:6

9B

K ≥ 61
50 ≤ Pa ≤ 56
0-6
4:2
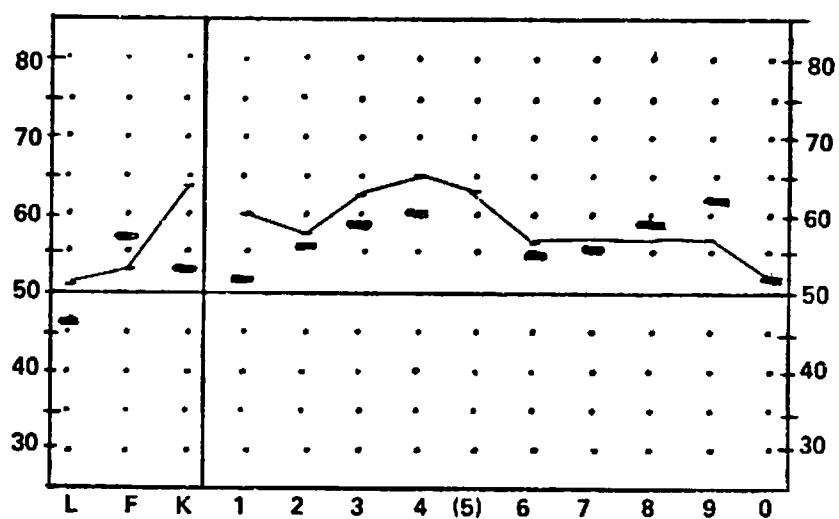
10B

K ≥ 50
50 ≤ D ≤ 60
1-9
5:4

11B

Hs ≥ 46
Sc ≤ 53
2-9
5:4
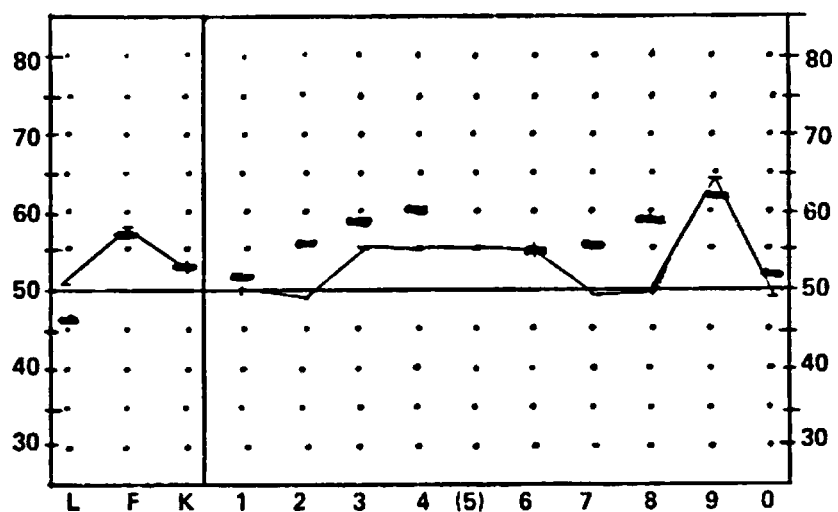
12B

Hs ≥ 57
D ≤ 60
1-7
5:2
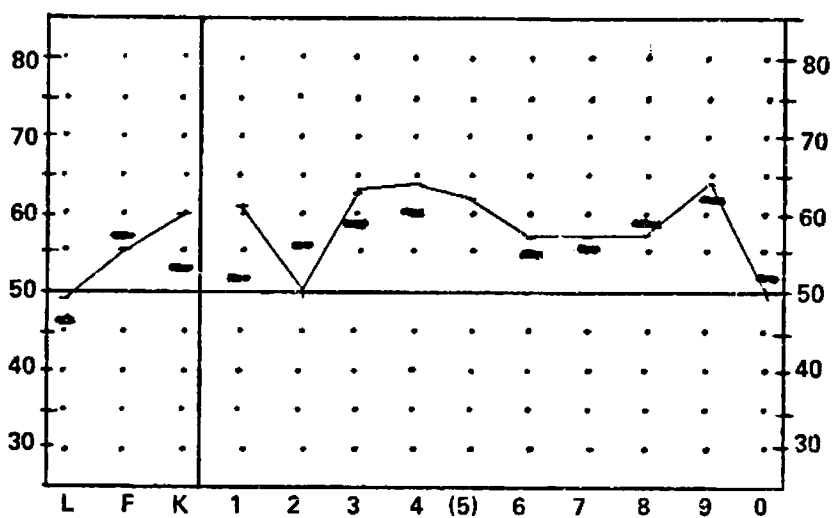
13B

48 ≤ Hs ≤ 57
Mf < 70
1-7
4:3
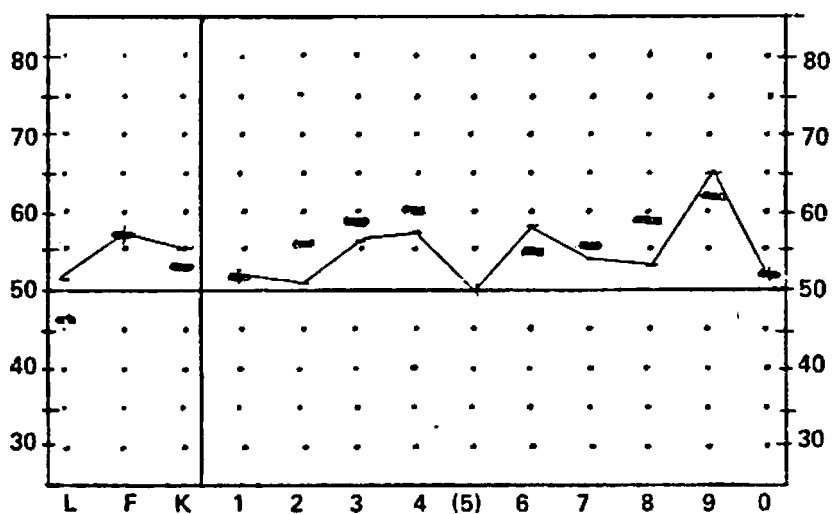
14B
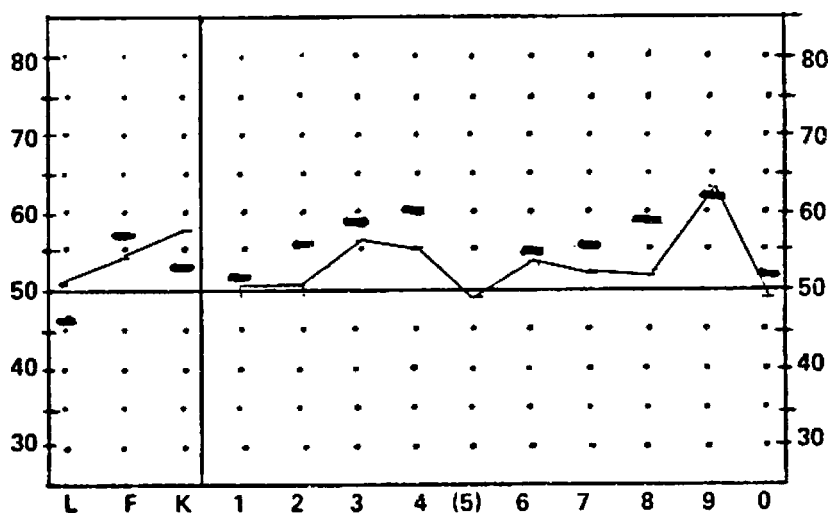
15B

D ≤ 60
53 ≤ Pa ≤ 56
3-12
7:5
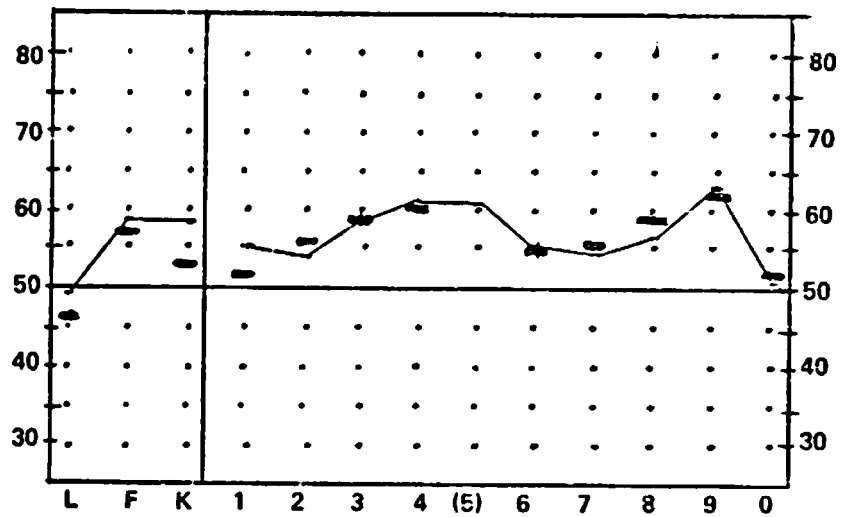
16B

D ≤ 60
63 ≤ Ma ≤ 68
1-9
3:6
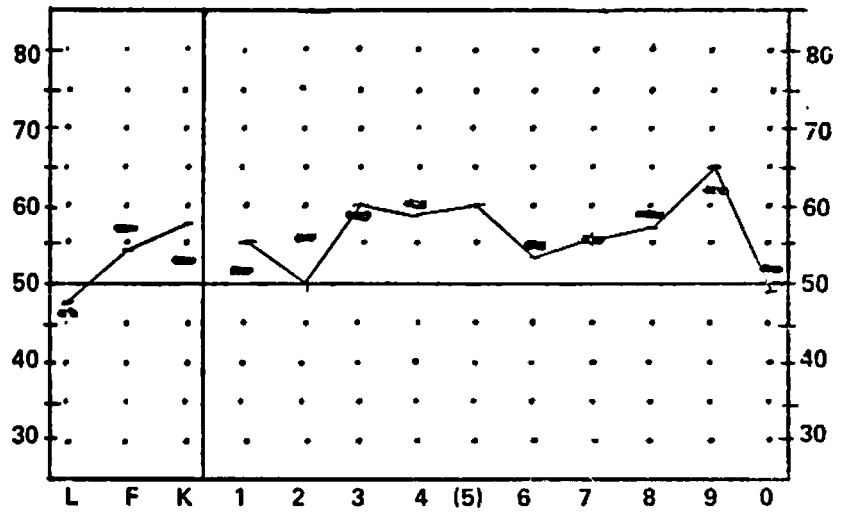
17B

Pd ≥ 53
Mf ≤ 61
0-6
3:3
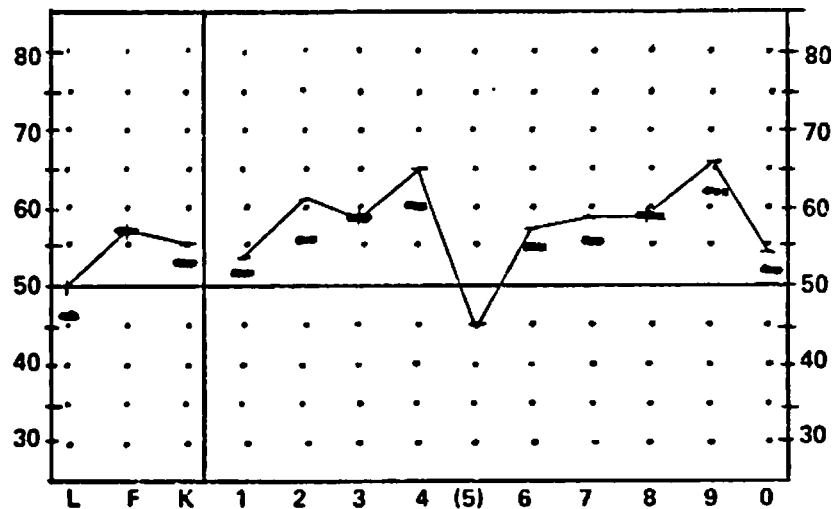
18B

Mf ≦ 61
Ma ≧ 60
0-6
3:3
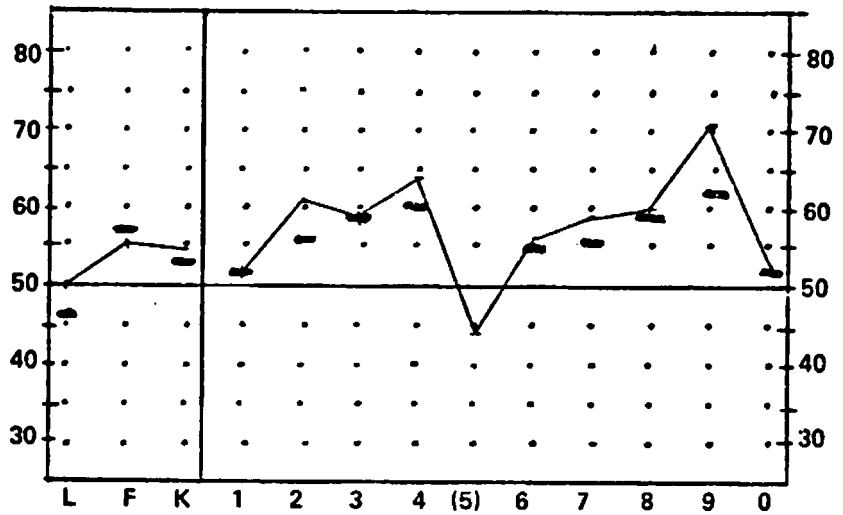
19B

Mf ≦ 67
Pt ≦ 58
2-9
6:3

20B

50 ≦ Pa ≦ 56
Pt ≦ 55
2-11
4:7

21B

that the kinds of within group patterns were, themselves, different for each group, a phenomenum one would hardly wish to write off as "error."

The profile descriptions are based on the author's synthesis of a number of manuals on the MMPI and his own clinical experience.

16PF

The Two-Way Multivariate Analysis of Variance (MANOVA) on the overall 16PF profiles yielded significance beyond the .20 level only on the sex main effect (p ≥ F = .119). This finding in the light of the absence of a sex effect 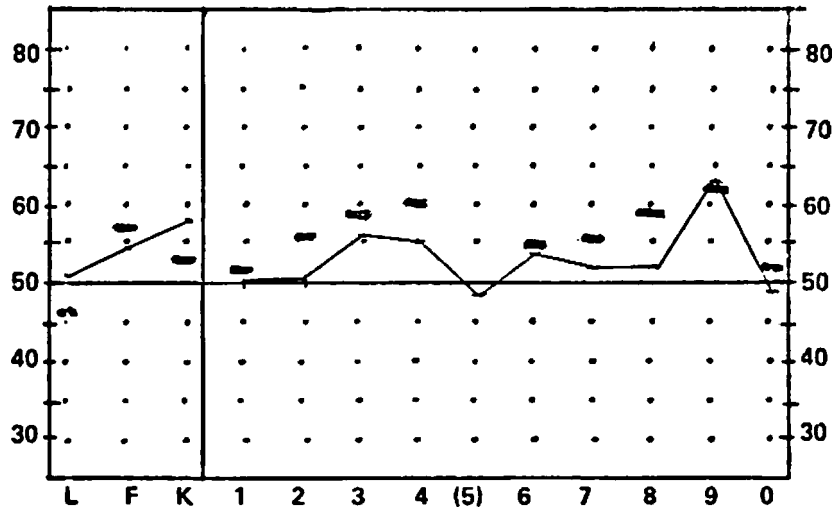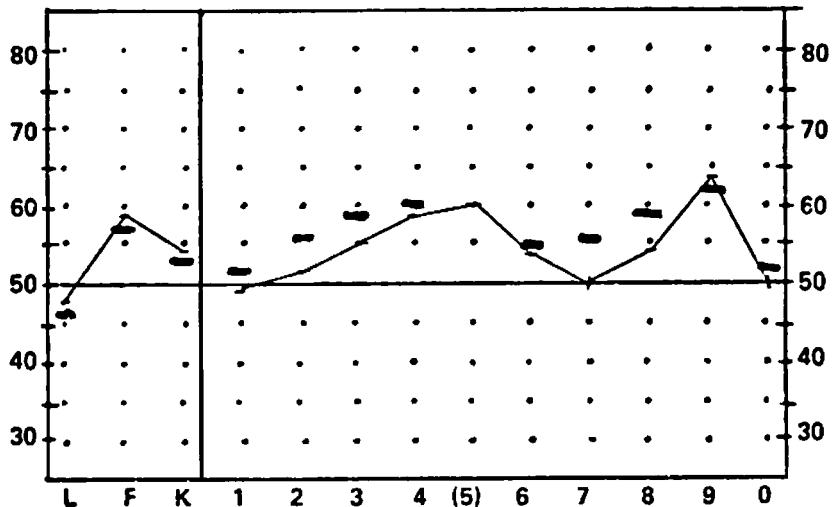on the MMPI, may indicate that the norms for males and females on the 16PF are not adequate for the college population - at least not for this particular subset of the college population - since part of the function of separate sex norms is to reduce differences in standard scores between the sexes by interpreting the raw scores in terms of deviations from their separate means.

Table 2 shows the analysis of variance results for males of Group A vs males of Group B and females of Group A vs females of Group B. The overall differences for males were not significant (F = .566, p ≤ .842) but the overall differences for the females were significant (F = 1.998, p ≥ F = .179). This finding is identical to the MMPI results, but the differences were greater for the females on the MMPI. This suggests that tests which utilize sten scores are less sensitive than tests which use T-scores. This factor is particularly important when deciding on the probability of a Type 1 error appropriate to the research.

The results of the multiple discriminant analysis program (Table 3) yielded essentially equivalent results with a high proportion of correct classifications into the appropriate group for the females and

a lower proportion for the males. The classifications were less accurate for all of Group A vs all of Group B, less accurate than combining the separate results for males and females. The main effect for sex accounts for this result.

The multiple linear regression program (Table 2B) showed Scales B (p ⋗ F = .176), Q_1 (p ⋗ F = .049) and Q_3 (p ⋗ F = .035) to be significant for females (see Appendix C for delineation of the scales). For all of Group A vs all of Group B, Scales N (p ⋗ F = .116) and Q_1 (p ⋗ F = .157) were significant.

The results of the two-way analysis of variance for the individual scales are presented in Table 4B. Scale Q_1 showed a significant difference due to a group main effect (p ⋗ F = .037), Group A being higher on this scale, supporting the statements about some of the MMPI sub-groups to the effect that Group B was more conventional than Group A. There were three significant group x sex interactions. They occurred on Scales B (p ⋗ F = .088), E (p ⋗ F = .095) and Q_3 (p ⋗ F = .113). The females of Group B scored higher than the females of Group A on Scales B and E, while the males of Group B socred lower than the males of Group A on Scales B and E. This finding is rather interesting insomuch as it suggests that Group B females have higher needs for dominance, while the Group B males are more passive. The possibility of passivity in Group B males was noted in the discussion on the MMPI's. Recall that both Group B males and Group B females had lower scores on Scale 5 of the MMPI, indicating a stronger identification with sex stereotype. Yet, generally, when one thinks of femininity, one is reminded of terms such as passivity, compliance, etc. and when one thinks of masculinity, one thinks in terms of assertiveness,

drive, etc. But in this case, the group of females more strongly endorsing feminine interest patterns are also presenting themselves as more aggressive. This appears to be a conflict of interests. On the other hand, the Group B males do not deviate as greatly from the cultural stereotype for the male as do the Group A males, yet the Group B males present themselves as less assertive. This suggests a rather discordant mixture of personality characteristics. On Scale Q3, the Group A females present themselves as more controlled and compulsive, which is congruent with their higher scores on Scale 7 of the MMPI. The group x sex interaction here is due primarily to differences between the females, although the Group A males are slightly lower on this scale than the Group B males. It is interesting to note that, while the Group B females describe themselves as more assertive, they also endorsed items on the 16PF which indicate they exert less will power. This finding is congruent with higher scores on Scales 9 and 4 on the MMPI - suggesting a greater tendency to act-out impulses. The greater passivity for the Group B males is congruent with the "V" configuration on Scales 1, 2 and 3 of the MMPI.

Scales M (p ⋅ F = .181) and N (p ⋅ F = .036) showed a significant effect for sex, the males scoring higher on both scales.

Again, the statistical results are congruent with the overall impression one gets from looking at the mean profiles for the two groups (Graphs 1AB and 2AB - 16PF series). The exceptions are Scales I and N, which show that both males and females in Group A were lower on Scale I and higher on Scale N (these scales nearly reached statistical significance, but there was a large variability on both scales).

The graphs composed of subjects who fit the "rules" which were

found to discriminate between Group A and Group B are in the graph
section. Again, they permit one to look at data which have common
adherences. The graphs for the 16PF sub-groups follow basically the
same format as the MMPI graphs. The blackened circles and horizontal
marks indicate the area for the grand means of all 49 subjects combined
for each scale. The "x's" mark the means of the sub-group for each scale.
A line was drawn connecting the sub-group mean with the grand mean for
each scale to show the extent of the deviation.

The following is a brief comment about each unique sub-group for
Group A:

1. Graph 1 shows a group which is very high on Scale N,
   high on Scale L, Q_2, Q_4, and low on Scales C and G. This
   suggests a group which is socially polished, self-
   sufficient and hard to fool, while at the same time
   more expedient, tenser and more easily upset. It is
   loaded on males.

2. Graph 2 is very high on Scale G, high on Scales C, E,
   H and Q_3 and low on Scales O, L and N. It suggests a
   group of people who are very conscientious and somewhat
   compulsive, while being calm, trusting, self-assured,
   unpretentious, venturesome, and assertive.

3. Graphs 3 and 4 are very high on Scale N, high on Scale Q_4
   and low on Scale C. This group is very astute, socially
   aware and emotionally labile. They are loaded on males.

4. Graphs 5 and 6 are high on Scales M and Q_1, slightly high
   on Scale F and low on Scale Q_3. They suggest a group which
   is very liberal, bohemian and enthusiastic to the point
   of ignoring social rules. They are loaded on males.

5. Graphs 7 and 8 are high on Scale Q_2, slightly high on Scales
   Q_4 and Q_1 and somewhat low on Scales A, C and H, suggesting
   a group which is experimenting, self-sufficient, resource-
   ful, but shy, critical, reserved and a bit tense. Graph 8
   is loaded on females.

6. Graph 9 is similar to Graphs 7 and 8 above, but indicates
   more abstract thinking, being higher on Scale B.

7. Graph 10 is very high on Scales Q_2 and Q_4, high on Scale O and low on Scales C and Q_3. These factors are consistent with a situational reaction resulting in self-reproach, worry and tension in a group which is resourceful, but somewhat lax in following rules.

8. Graph 11 is similar to Graph 10 above, but this group is more resourceful and self-sufficient, while being more reserved and timid.

9. Graph 12 is similar to Graphs 10 and 11.

10. Graph 13 is high on Scales Q_2 and Q_3, overall presenting as being very resourceful, self-sufficient, compulsive but somewhat reserved.

11. Graph 14 is very high on Scale Q_1, high on Scales F and M, and low on Scale N. It suggests a group which is highly experimenting, liberal, imaginative and enthusiastic.

12. Graph 15 is high on Scales Q_4, Q_2 and O, slightly high on Scale B and slightly low on Scale C. Again, this suggests a situational stress reaction in an intelligent, resourceful group which has resulted in heightened tension and guilt, factors which indicate a good prognosis for therapy.

13. Graph 16 is quite high on Scales M, Q_1 and F, high on Scales E and Q_2, low on Scale G and slightly low on Scale Q_3. The profile suggests as assertive, bright, imaginative, resourceful, enthusiastic and very liberal group who is likely to be highly creative and independent. It is composed mostly of males.

14. Graph 17 is very high on Scales Q_3 and G, very low on Scales O and Q_4, and low on Scales A, F and L. This group is serene, accepting, calm, relaxed, sober, reserved, and is able to exact will-power, being conscientious and persistent.

15. Graph 18 is high on Scales Q_2 and Q_3, and low on Scales A and F. This suggests a sober, introverted, self-sufficient and compulsive group.

16. Graph 19 is very high on Scale Q_3, high on Scale G and low on Scales O and Q_4. Again, this represents a group which is self-assured, controlled, conscientious and relaxed. It is loaded on females.

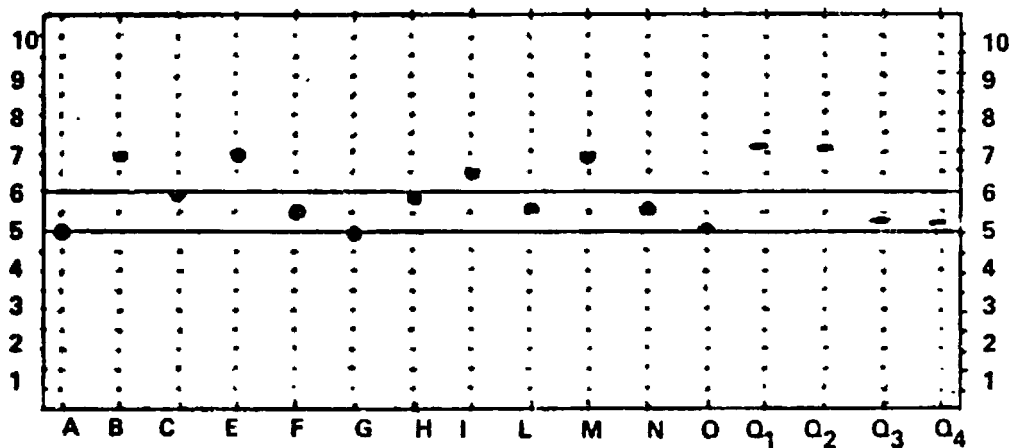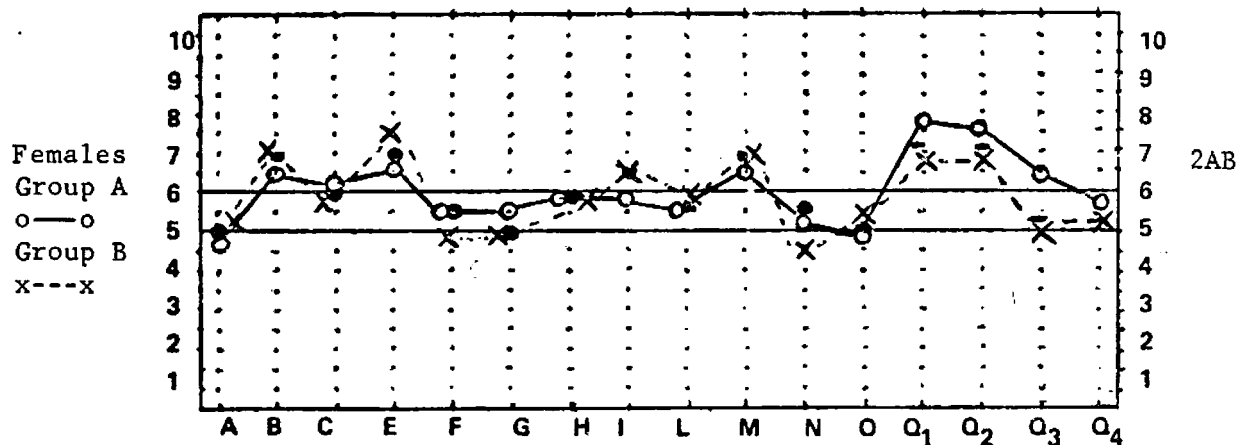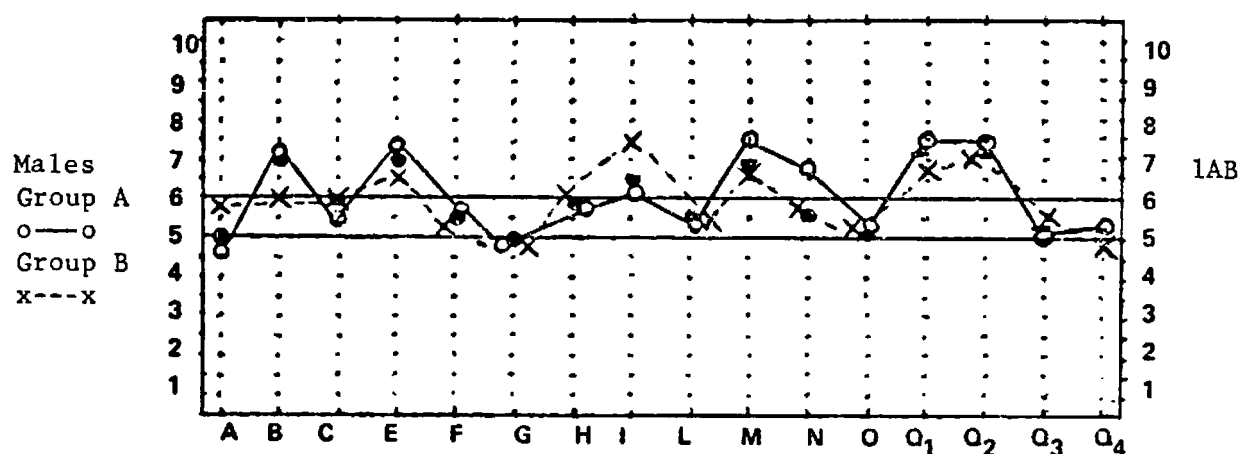17. Graph 20 is high on Scales O, Q_2, and Q_4, and low on

Scale I. This group is tense, worrying, resourceful and self-reliant.
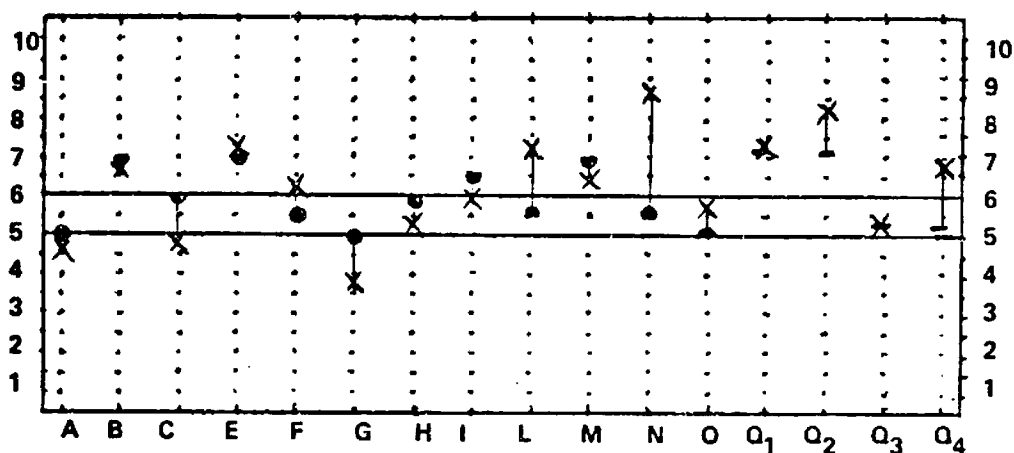
The following statements apply to Group B:

1. Graph 1 is very low on Scales Q_1 and Q_4, slightly low on Scales B, E and M, and slightly high on Scale A. This group presents as very relaxed, very conservative in ideas, less imaginative, more concrete, more participating and less assertive. It is loaded on males.

2. Graph 2 is low on Scales Q_1 and Q_2, slightly low on Scale L, high on Scales I and O and slightly high on Scale A. This group is conservative, more group dependent, participating, accepting and clinging.

3. Graph 3 is very high on Scale I, high on Scale O and low on Scales Q_1, Q_3, F and slightly low on Scale H. It suggests people who are very clinging, tender-minded, conservative but undisciplined, serious, more insecure, but who do not see themselves as tense.

4. Graph 4 is low on Scales Q_1, Q_2 and E, slightly low on several other scales and slightly high on Scale O. Again, this suggests conservatism, passivity, group dependency and apprehension. Since tension is low, it also suggests a chronic pattern.

5. Graph 5 is very low on Scale Q_3, low on Scale Q_1, high on Scales I and O, and slightly high on Scale E. It suggests conservatism, impulsivity and conflict between needs for dominance and needs for protection.

6. Graph 6 is very low on Scales A, N and Q_3, low on Scales C and F and high on Scales E, I, Q_2 and Q_4. It suggests a group which is socially clumsy, impulsive, but quite detached and critical and in conflict with needs to be assertive and self-sufficient, but at the same time liked and protected. Were they not quite so detached and critical, prognosis for therapy would be good. It is composed almost exclusively of females.

7. Graph 7 is very high on Scale L, high on Scales A, E, I, M, O and Q_4 and low on Scales C and Q_3. This group presents as more outgoing, assertive, impulsive, hard-to-fool (but not socially polished), imaginative and more tense and sensitive. It is rather like a spike 9 MMPI profile - which did occur among the Group B MMPI sub-groups.

8. Graph 8 is very high on Scale I, slightly high on Scales L and O and somewhat low on Scales C, F and H. This group

appears very sensitive and clinging, serious, shy and probably suspicious of others.
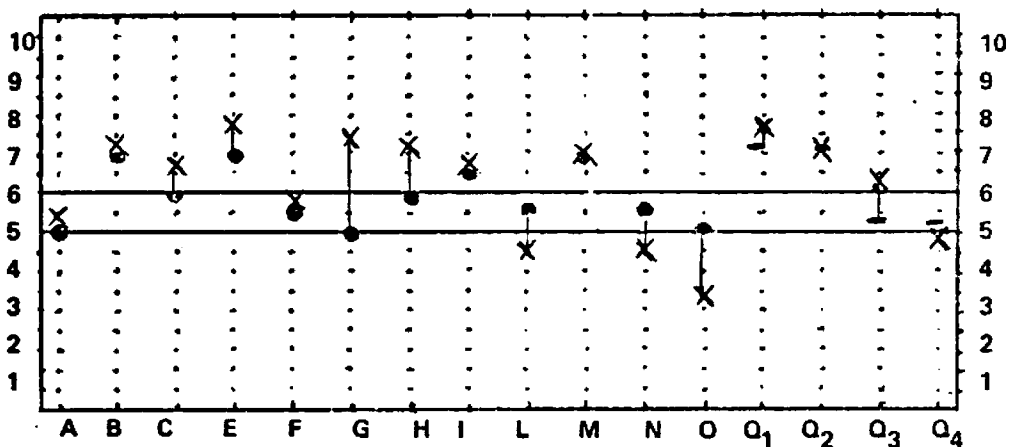
9. Graphs 9 and 17 are also very high on Scale I and similar to Graph 8 above, except in being lower on Scales Q_1 and Q_3, indicating this group is more conservative, but also less disciplined.

10. Graph 10 is high on Scales A, L and M, slightly high on Scale O, and slightly low on Scale Q_2. It suggests a well-adjusted, imaginative, hard-to-fool, easy-going group.

11. Graph 11 is very high on Scale E, high on Scale O, slightly high on Scales H, I and L, and low on Scales N and Q_1. It shows a very aggressive, venturesome, unpretentious, tough, hard-to-fool group which is slightly clinging and traditionally-minded. It is loaded on females.

12. Graph 12 is high on Scales C, E and I, and low on Scales F, G. N, O and Q_4. This group presents itself as being mature, competitive, serious, expedient, tender-minded, unpretentious, self-assured and very relaxed. In general, the group endorses a number of socially approved qualities. Interestingly, four of the seven females had Scale 4 (MMPI) = 70 and two other subjects (one female) had definite 4-9 peaks. This suggests high awareness of social contingencies and low anxiety.

13. Graphs 13 and 16 are very low on Scales F and H, low on Scale C and E and high on Scales I and O. This suggests a group which is very threa-sensitive, apprehensive, sober and docile. It is composed mostly of females.

14. Graph 14 is composed exclusively of females. They scored very low on Scales Q_4 and Q_1, low on Scales E, L, M and Q_2 and high on Scale A. They present themselves as very participating, cooperative, re-laxed, trusting, practical and very traditional.

15. Graph 15 is low on Scales Q_2 and C and high on Scales A, F, H and N. This group is compliant, venturesome, socially aware and changeable.

16. Graph 18 is moderate on most scales, but high on Scale A and low on Scale Q_2, signifying a "joining in" sort of group.
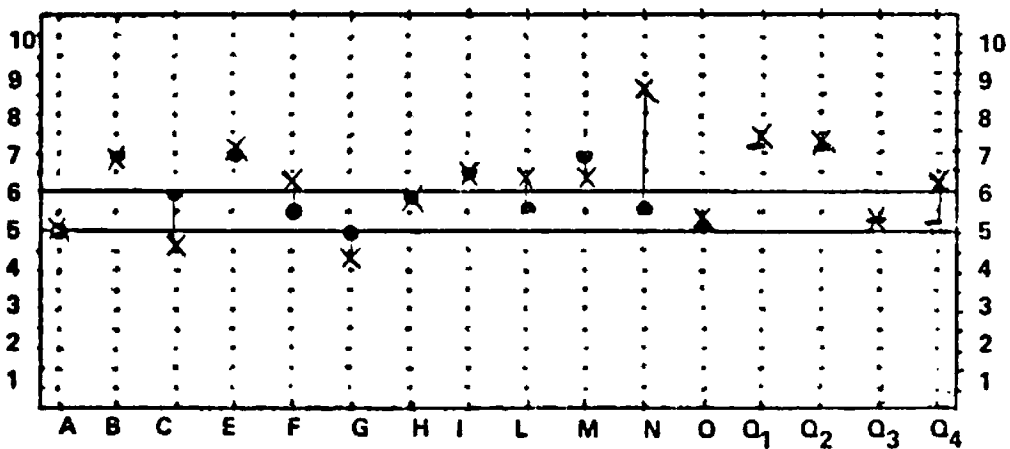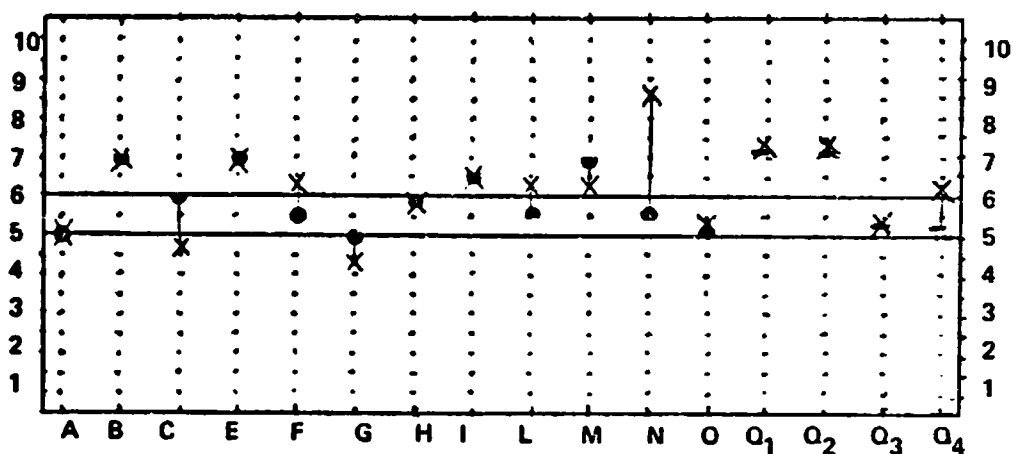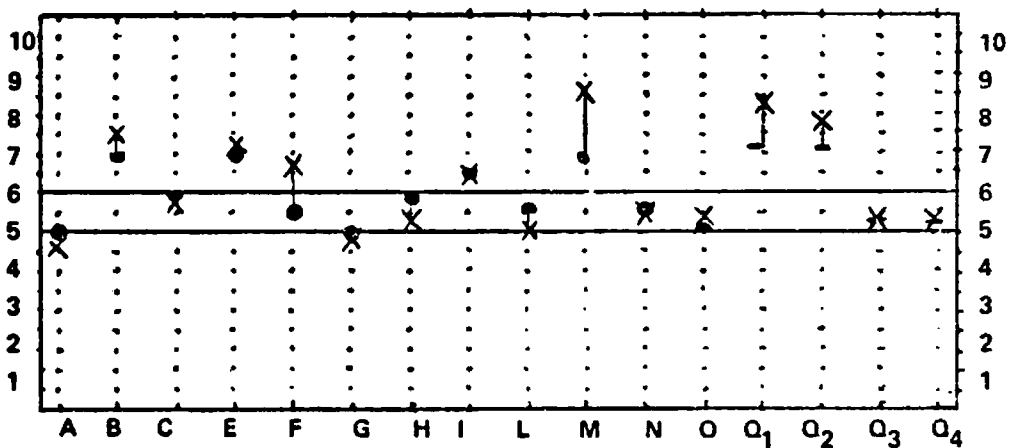
EPI

.

Males
Group A
o——o
Group B
x---x

1AB

Females
Group A
o——o
Group B
x---x

2AB

N ≧ 7
Q1 ≧ 6
9-2
6:3

4A

4 ≦ 0 ≦ 7
M ≧ 8
9-2
6:3

5A

4 ≦ 0 ≦ 7
Q1 ≧ 8
10-3
6:4

6A

7A

3A

9A

$5 \leqq I \leqq 7$
$Q_4 \geqq 6$
8-0
4:4

10A

$4 \leqq 0 \leqq 7$
$Q_2 \geqq 8$
10-3
5:5

11A

$Q_2 \geqq 8$
$E \leqq 8$
12-3
5:7

12A

Q_2 ≧ 8
Q_3 ≧ 5
10-3
4:6

13A

$Q_1 \geqq 8$
$3 \leqq N \leqq 5$
8-1
4:4

14A

$6 \leqq I \leqq 7$
$Q_4 \geqq 6$
7-0
3:4

15A

16A
G ≤ 4
M ≥ 8
6-0
5:1

17A
0 ≤ 4
Q₃ ≥ 7
7-0
3:4
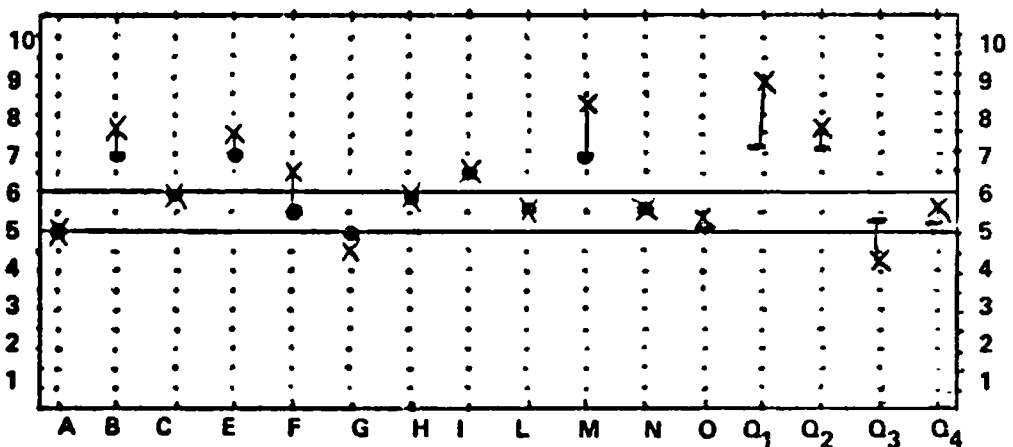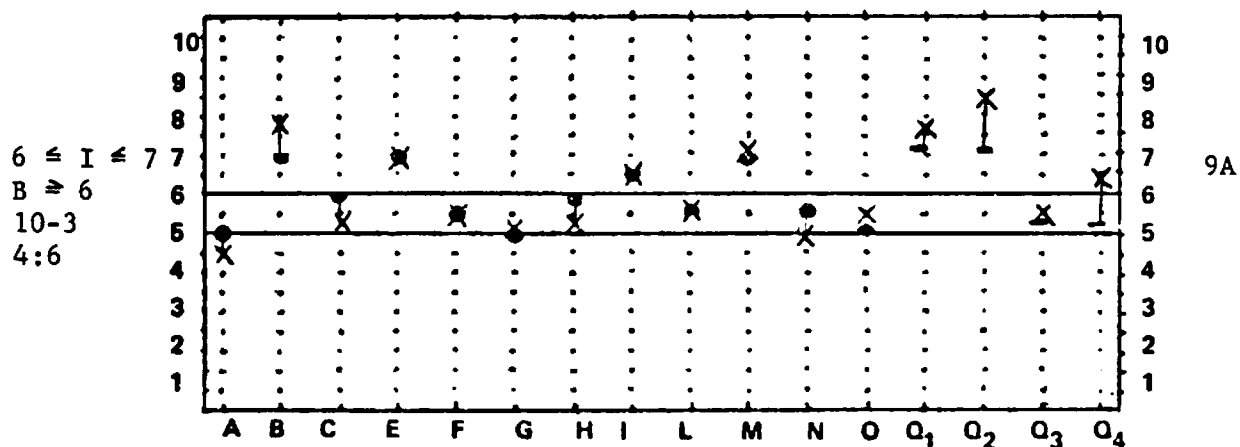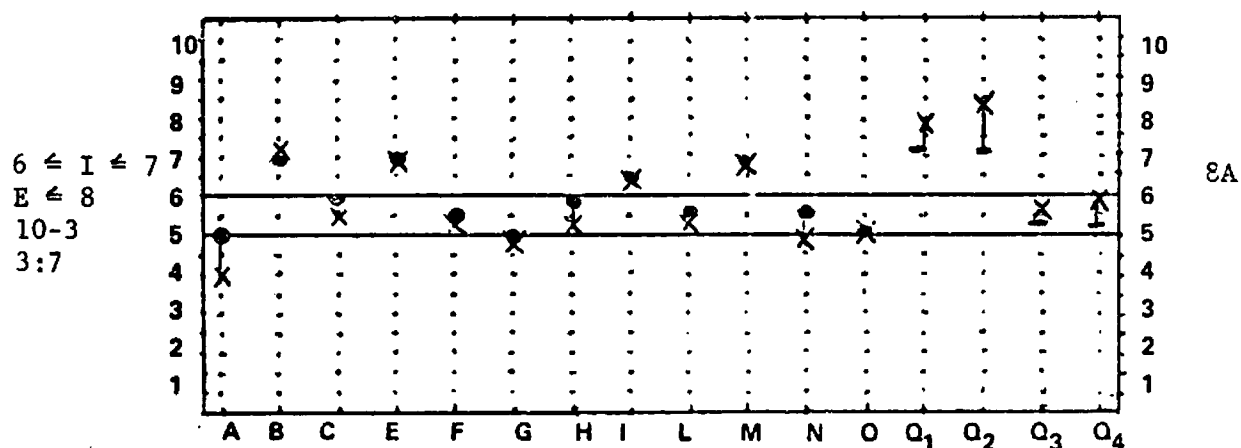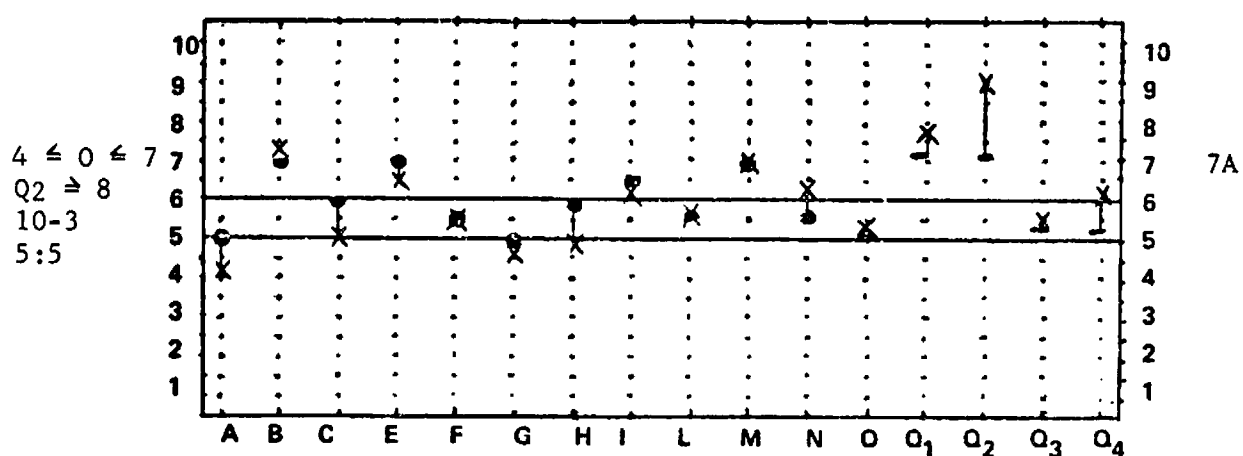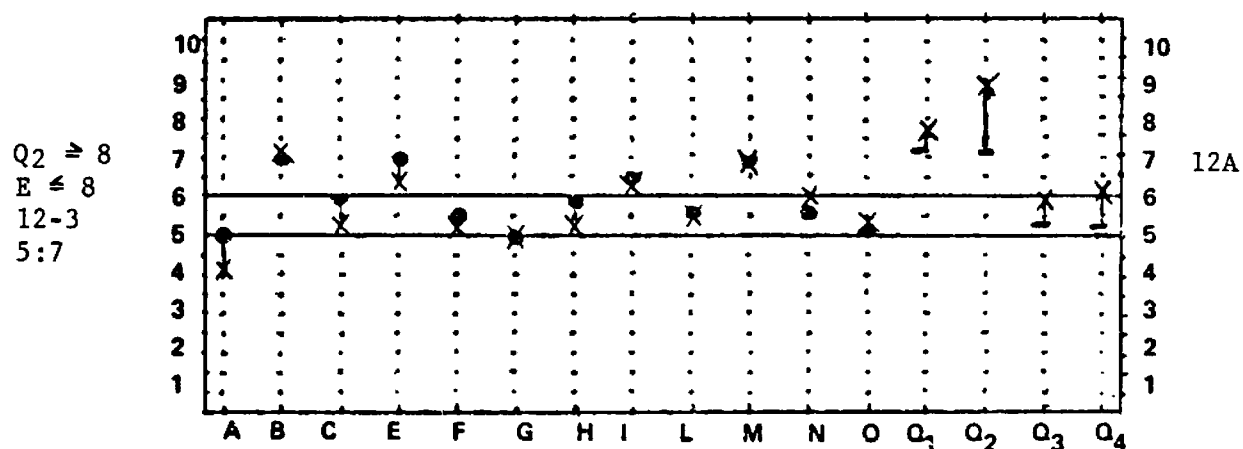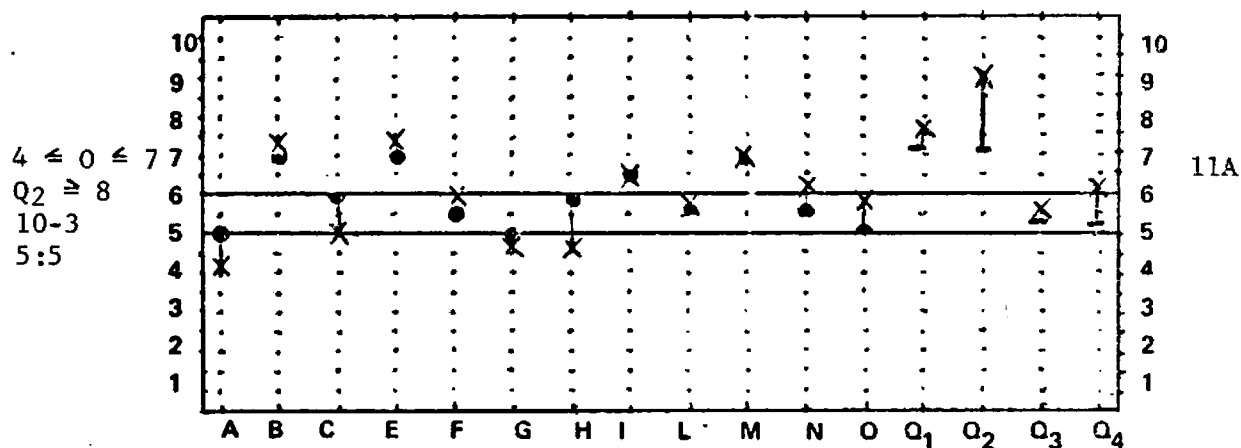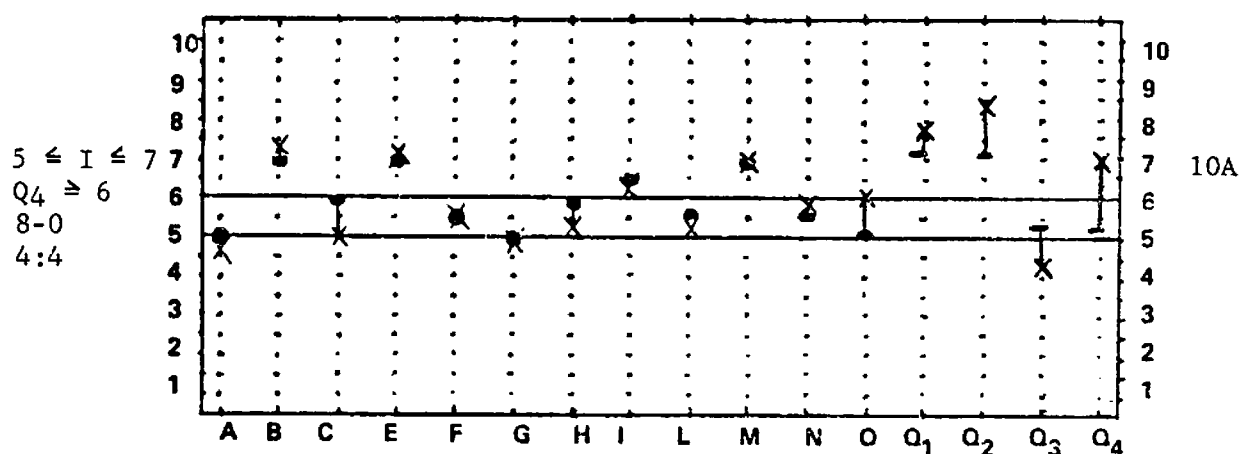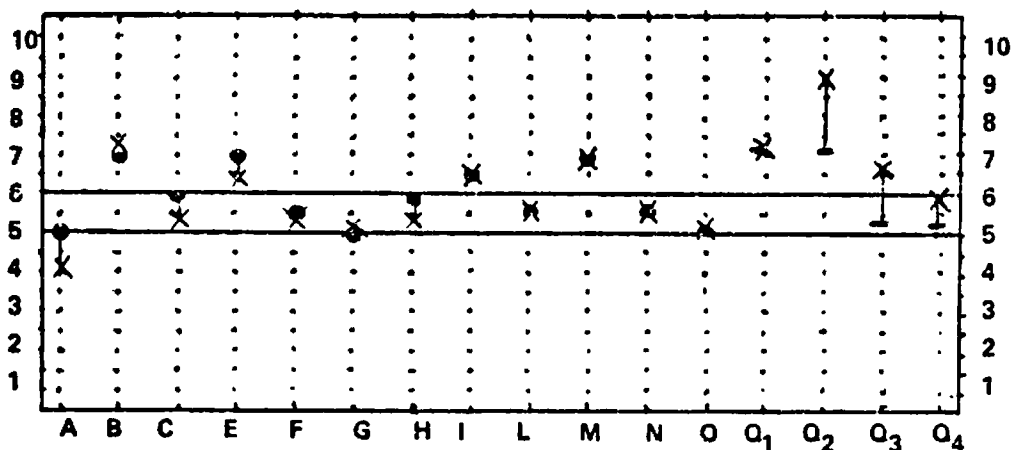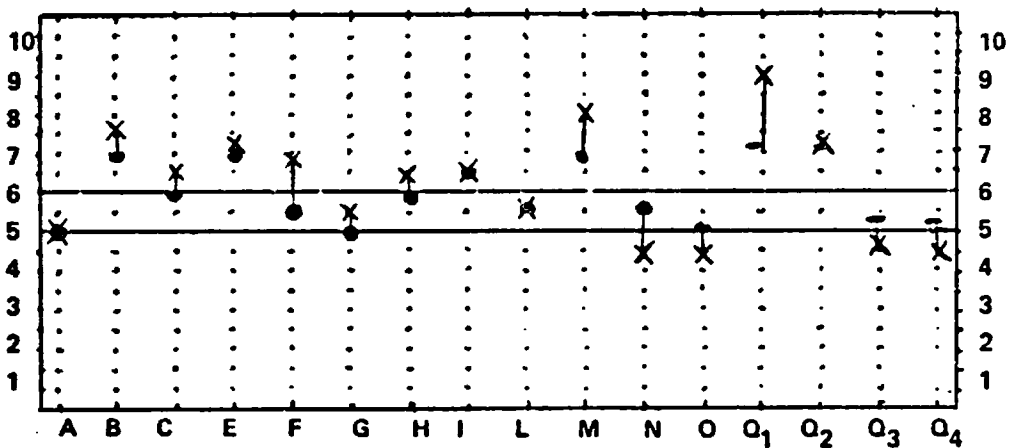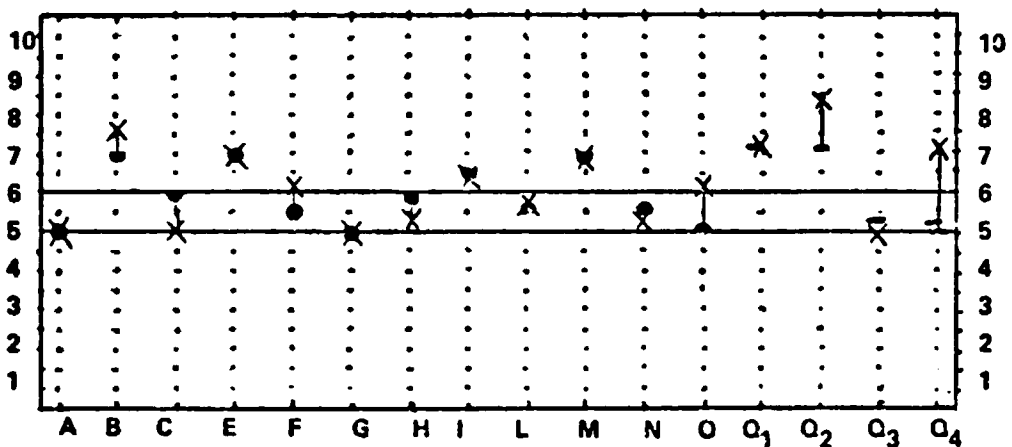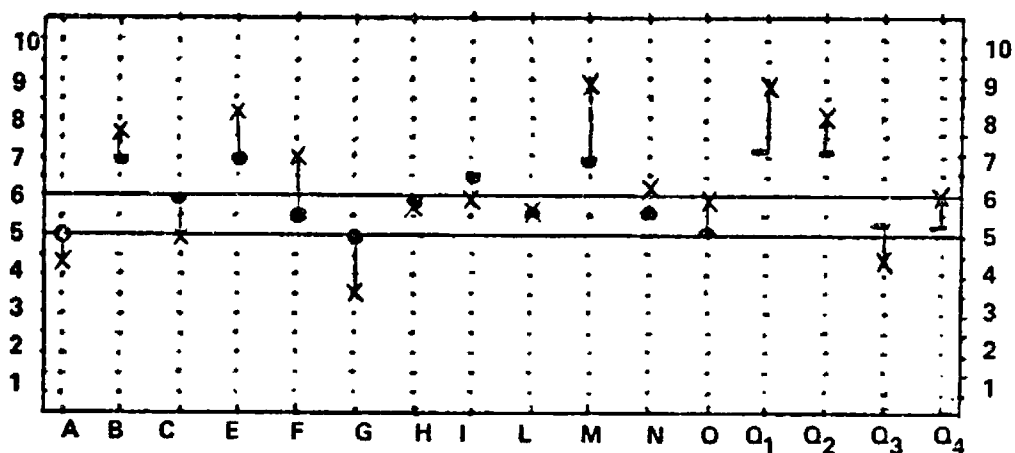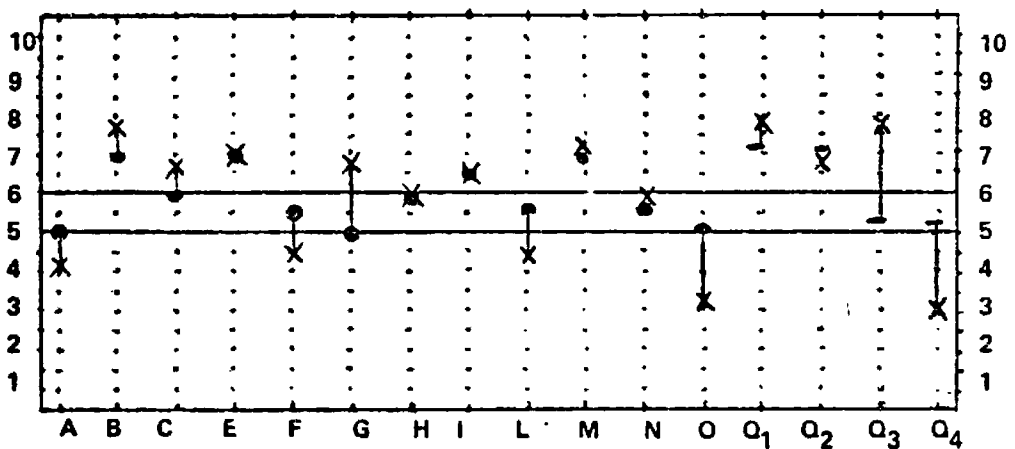
18A
Q₂ ≥ 7
Q₃ ≥ 6
11-3
5:6

$Q_3 \geqq 7$
$Q_1 \geqq 6$
10-2
3:7

19A

$Q_4 \geqq 6$
$I \leqq 7$
10-2
4:6

20A

$Q_1 \leqq 6$
$Q_4 \leqq 5$
2-9
6:3

1B

$5 \leqq F \leqq 6$
$Q_2 \leqq 7$
2-9
4:5

2B

$I \geqq 9$
$Q_1 \leqq 7$
1-7
4:3

3B

Q1 ≦ 6
Q2 ≦ 7
3-10
6:4

4B

Q3 ≦ 4
Q1 ≦ 7
1-8
3:5

5B

Q3 ≦ 4
A ≦ 5
1-7
1:6

6B

$5 \leqq N \leqq 6$
$L \geqq 6$
1-7
4:3

7B

$I \geqq 8$
$F \leqq 6$
3-10
5:5

8B

$I \geqq 9$
$Q_1 \leqq 7$
1-7
4:3

9B

5 ≤ G ≤ 6
L ≥ 6
1-7
3:4

10B

E ≥ 8
Q₁ ≤ 7
2-9
3:6

11B

5 ≤ L ≤ 6
Q₄ ≤ 5
2-9
2:7

12B

$4 \leqq A \leqq 7$
$H \leqq 4$
1-8
3:5

16B

$I \geqq 9$
$L \geqq 5$
1-7
4:3

17B

$Q_2 \leqq 6$
$G \leqq 6$
3-10
4:6

18B
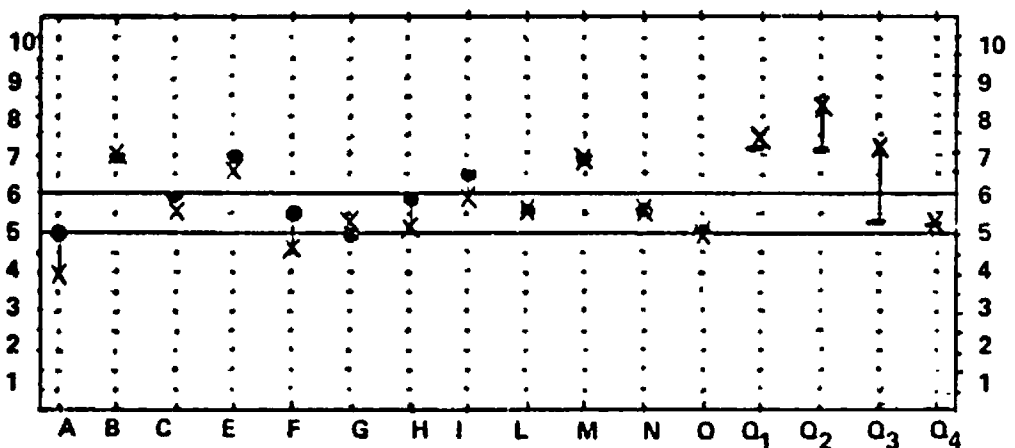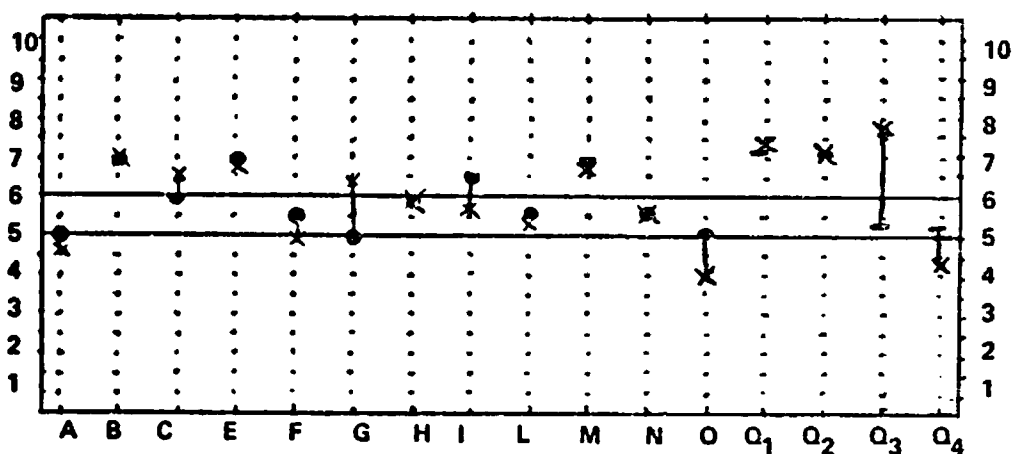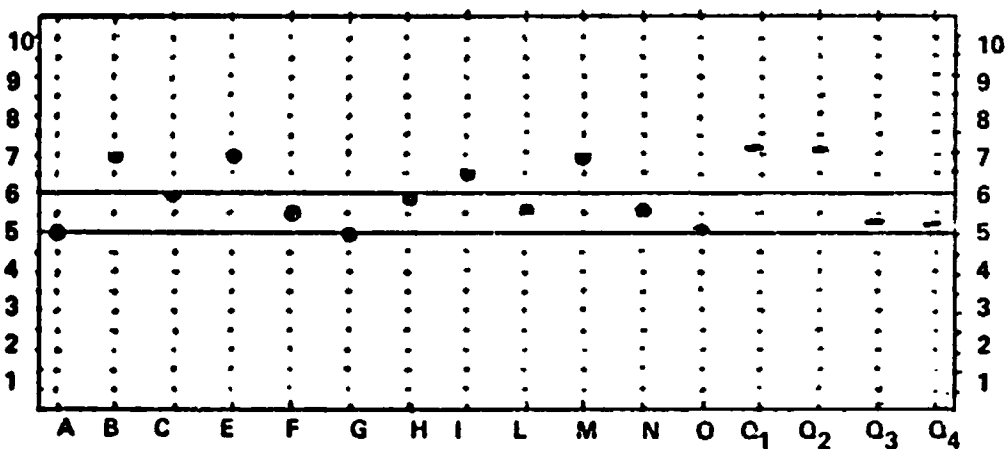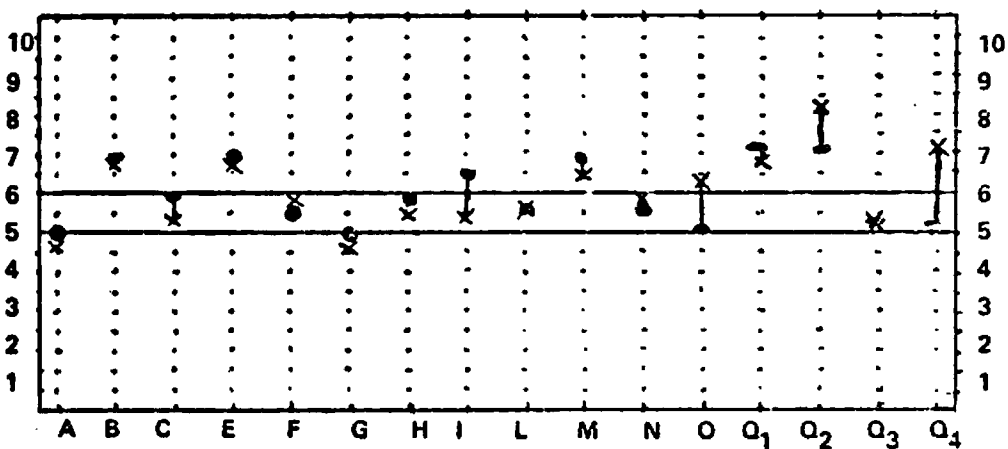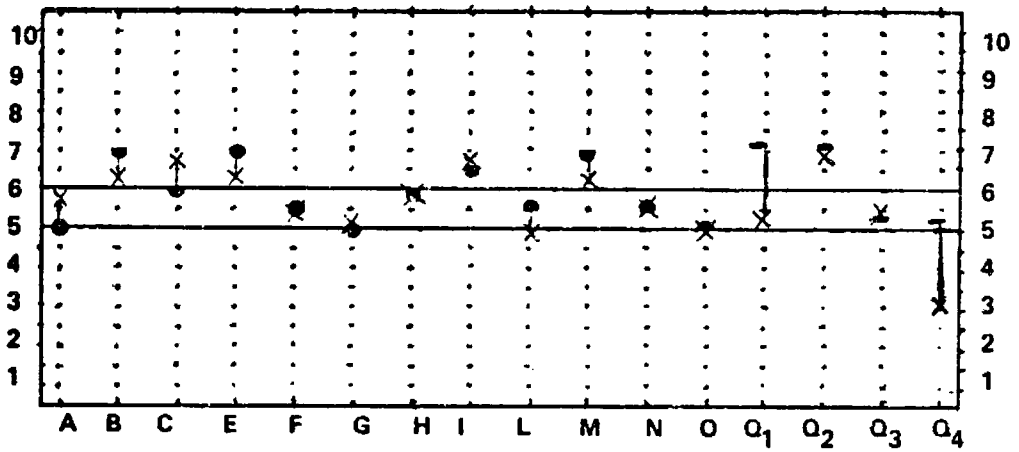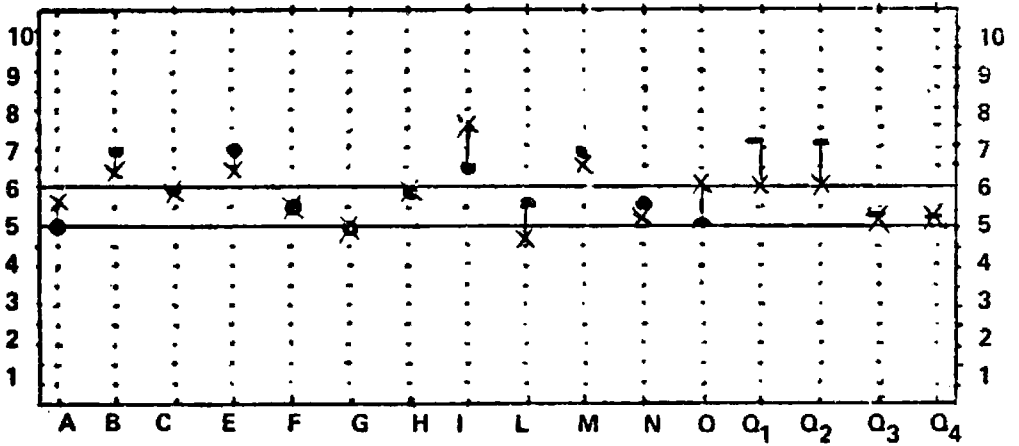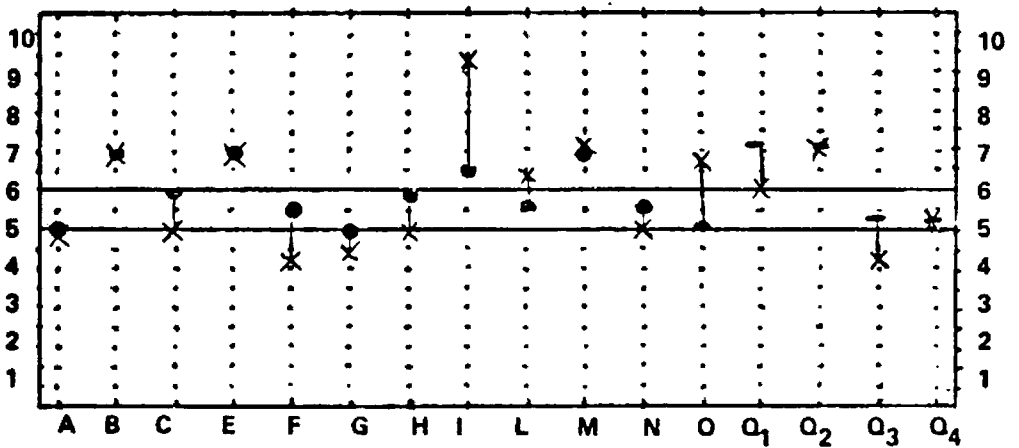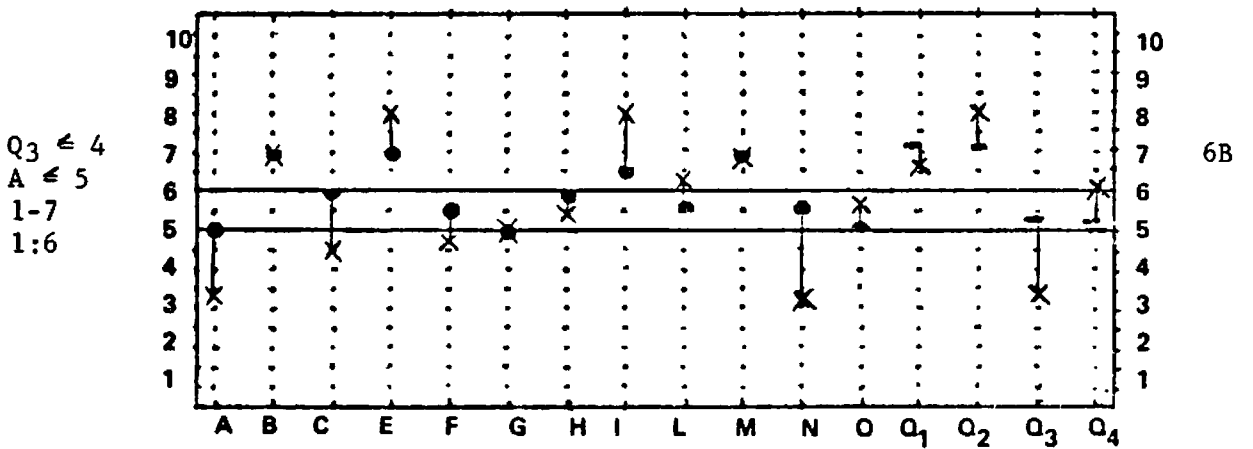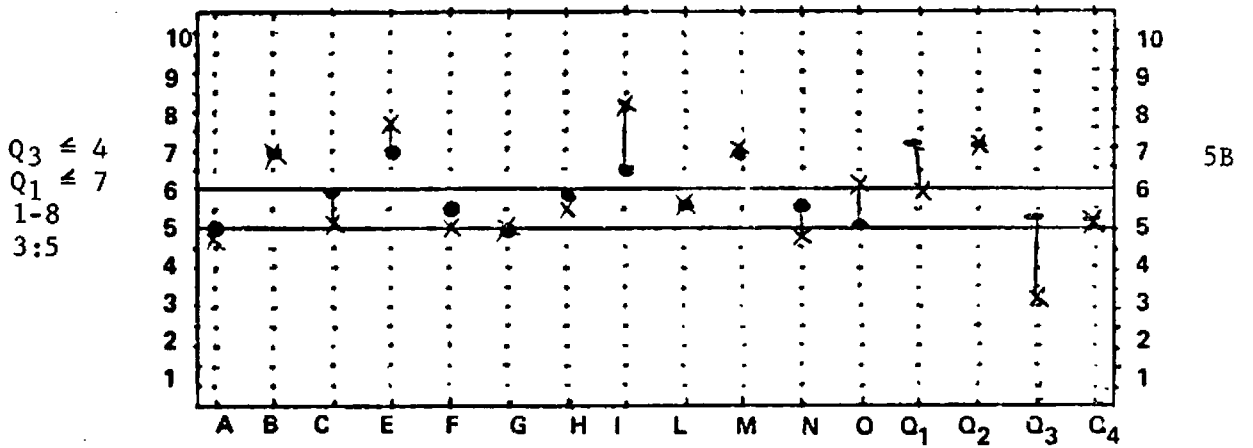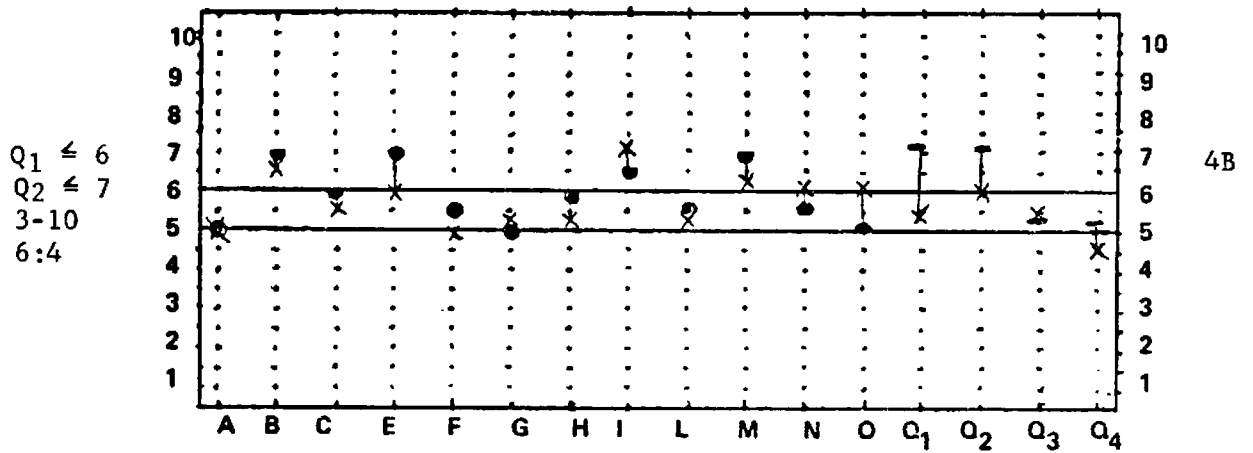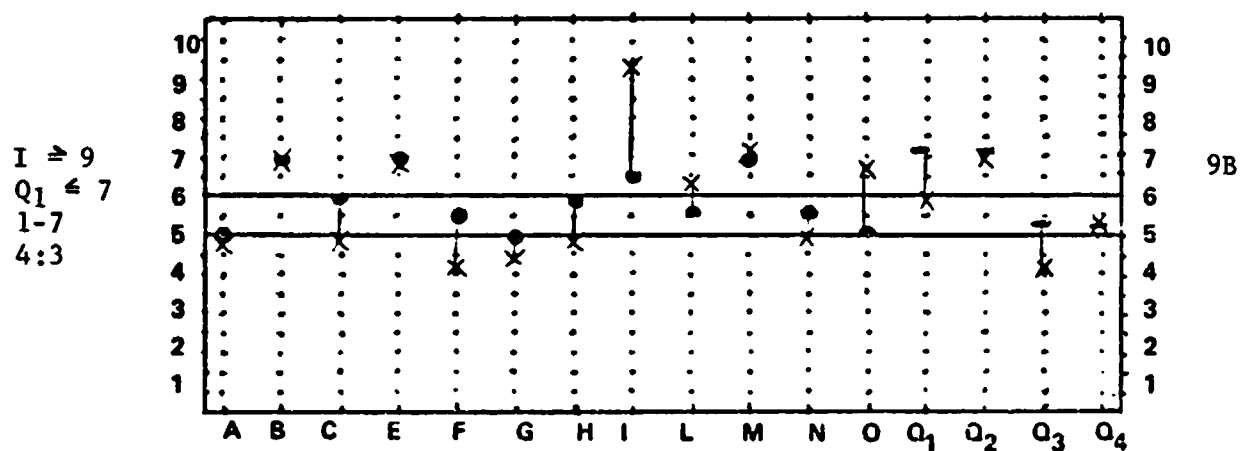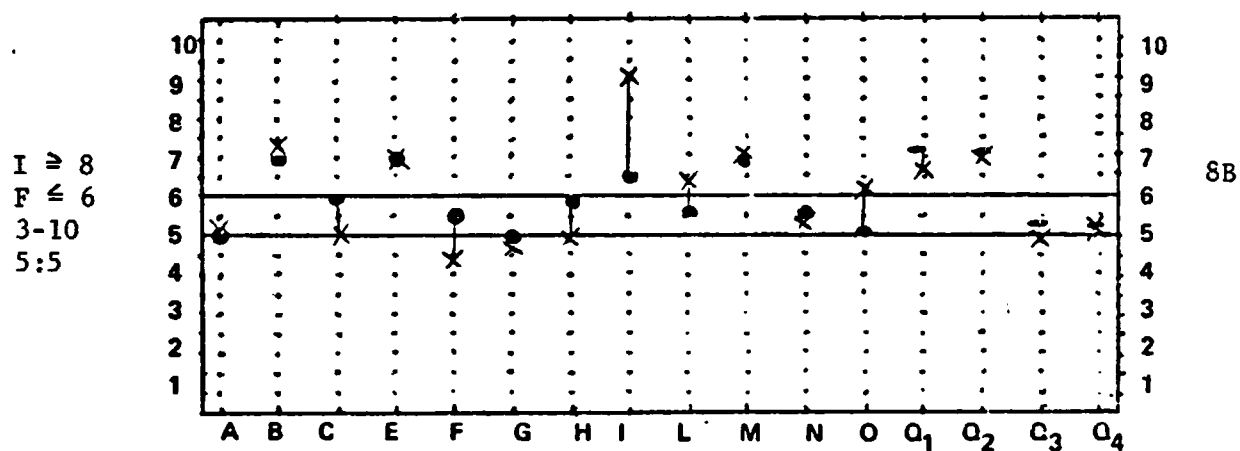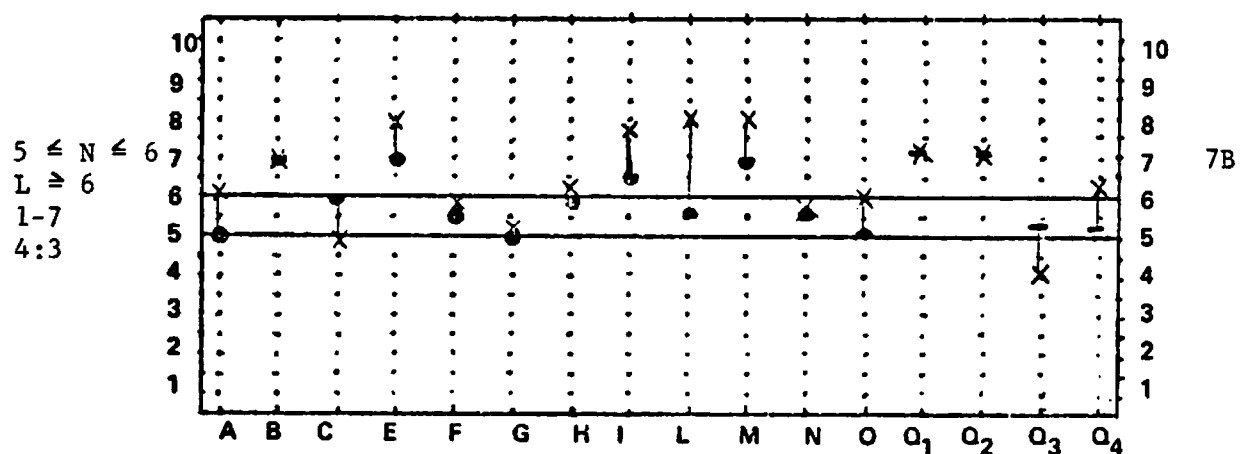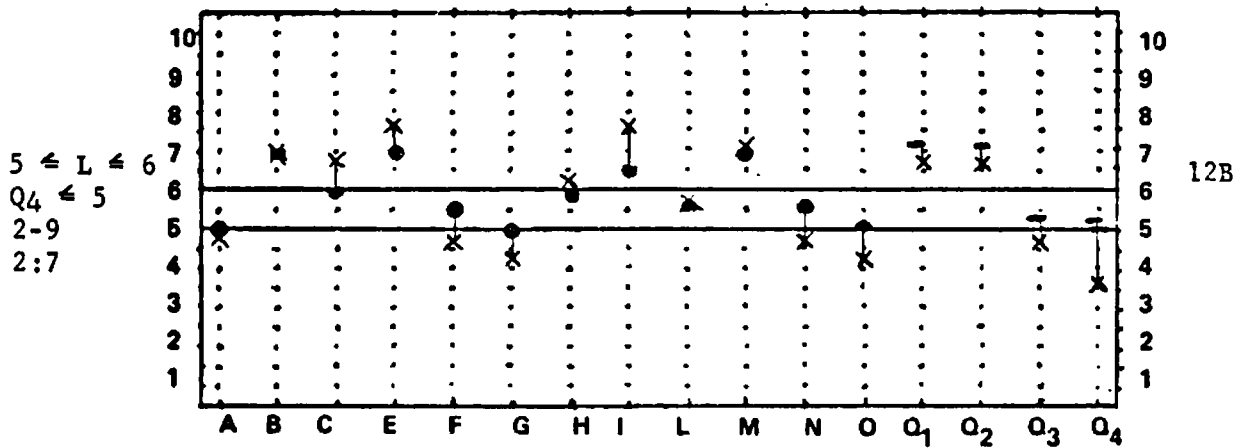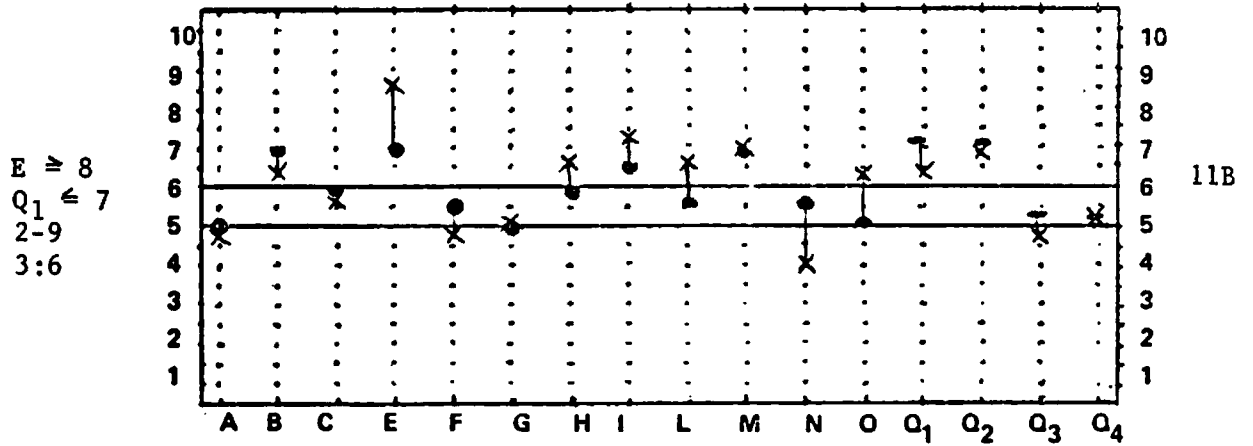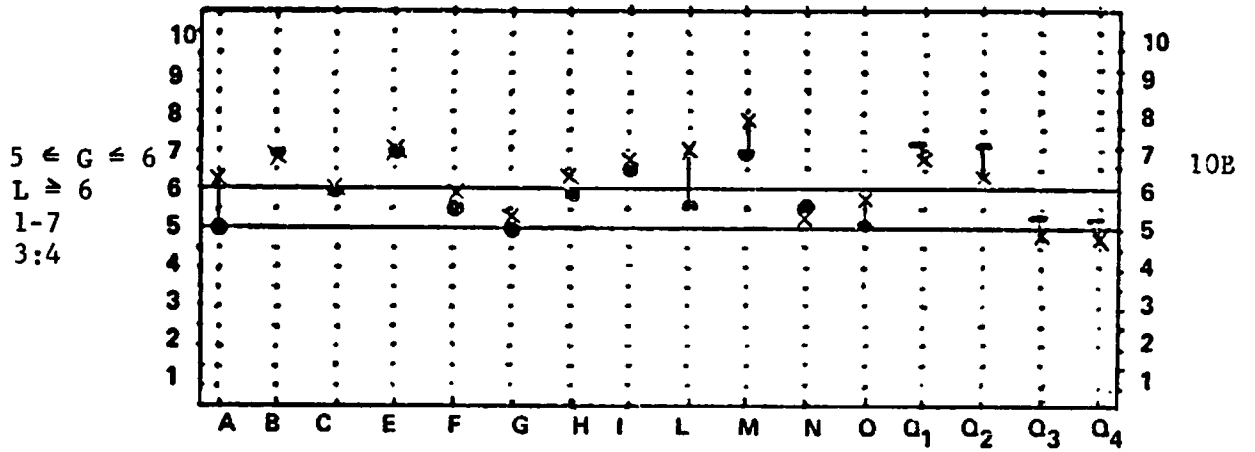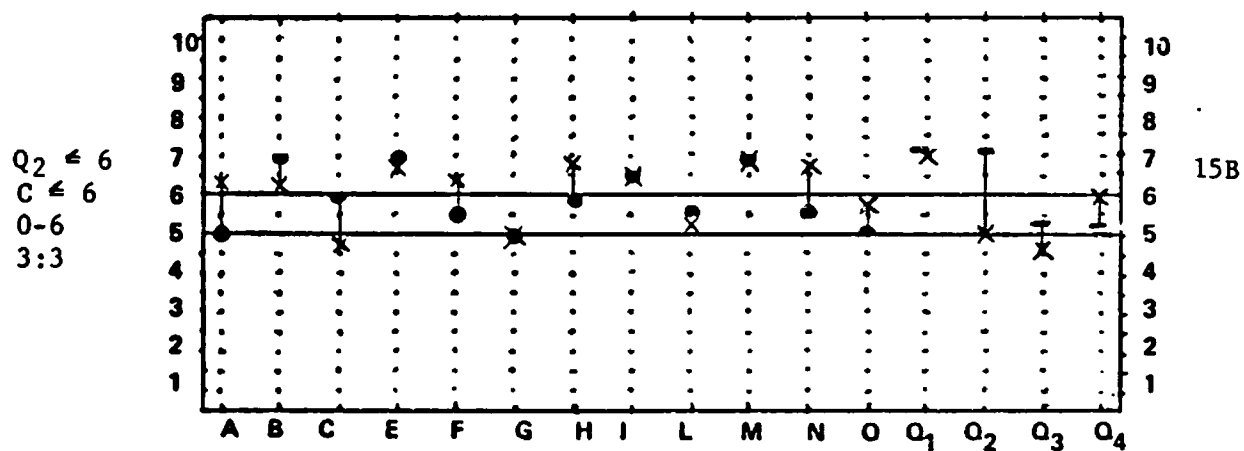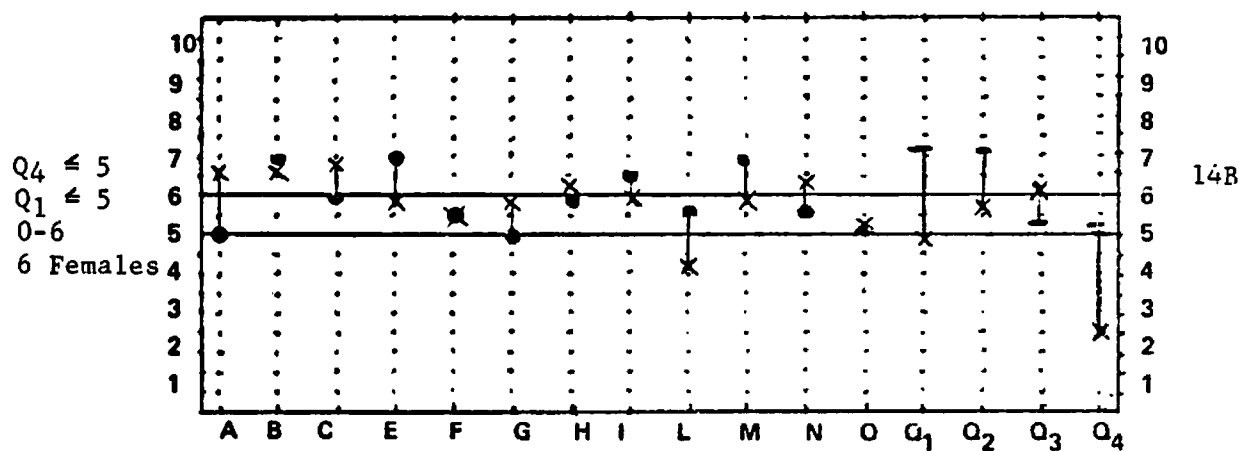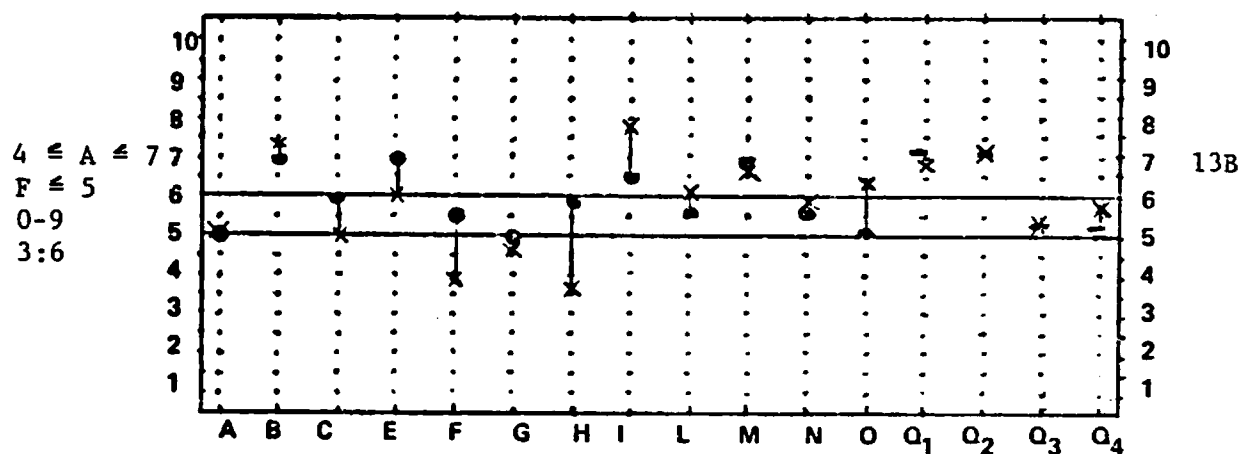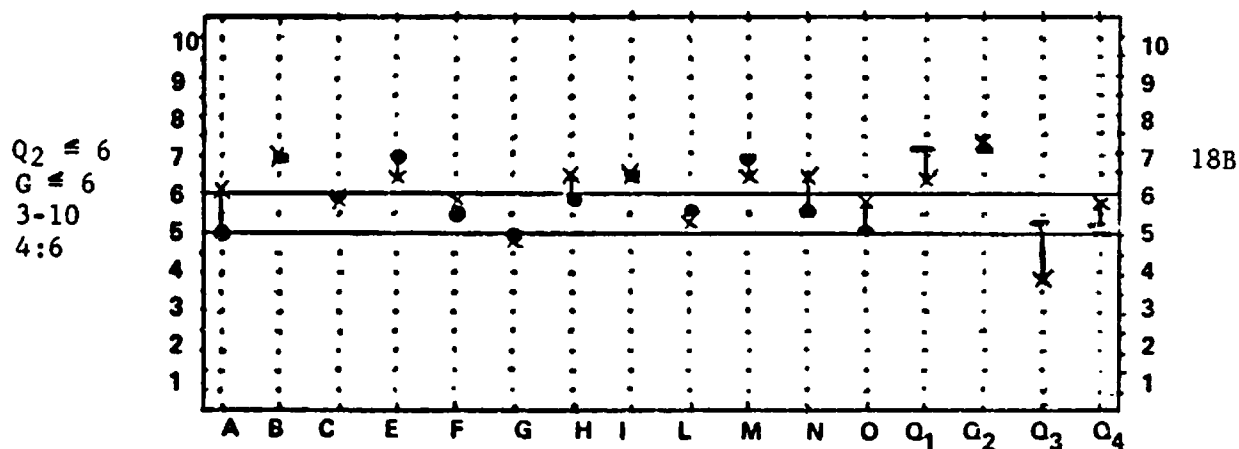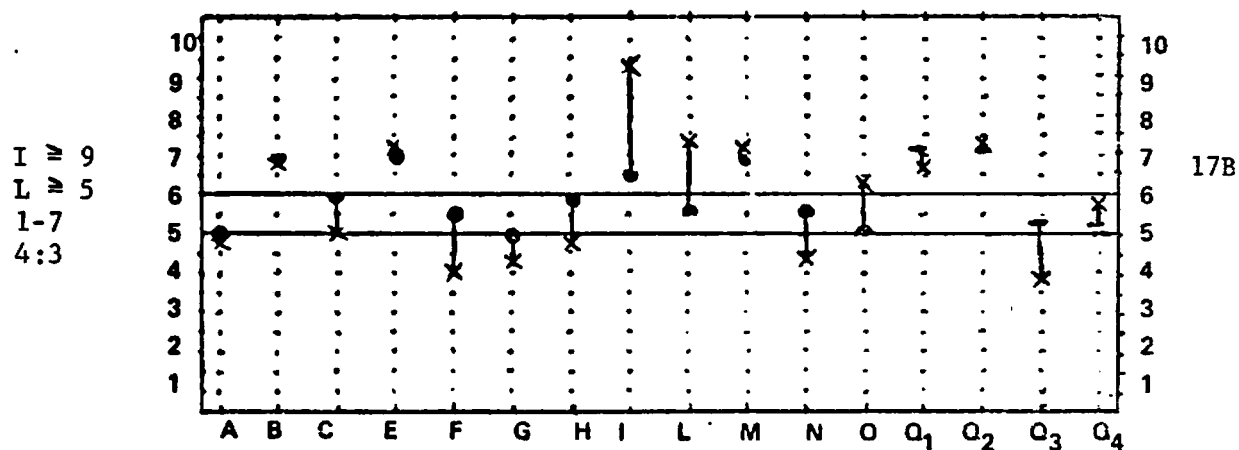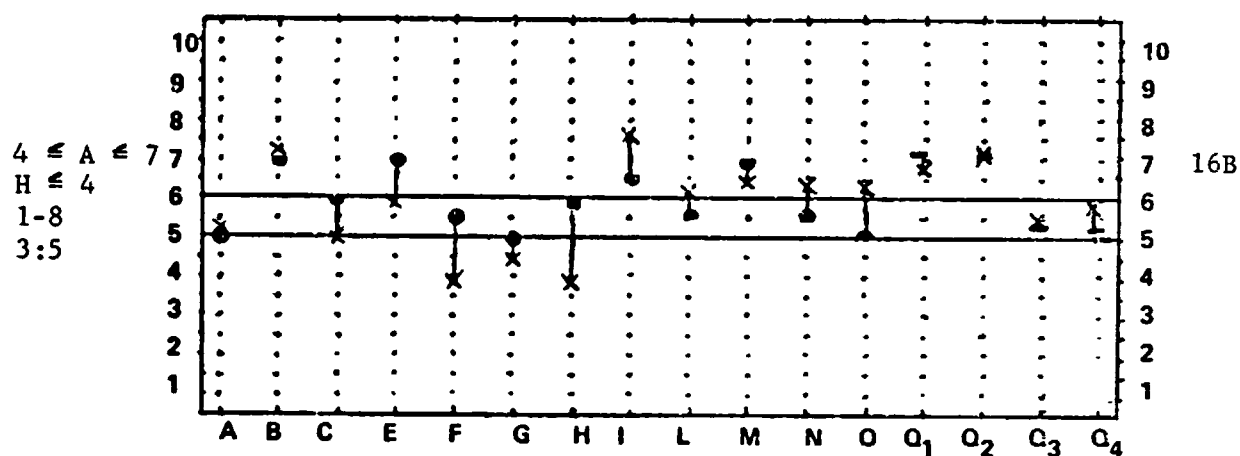
These results were not subjected to statistical analysis. The rules that were generated are presented below with brief explanations.

1. $N \leq 8$, $L \geq 3$. 8-0. This indicates that Group A contains a sub-group which is moderate to low on neuroticism, but which tends to be rather conscientious and compulsive.

2. $9 \leq N \leq 11$. 2-10. This indicates that Group B has a large sub-group which has been cautious in its approach to the test - wanting to appear approximately "normal."

3. $9 \leq N \leq 12$, $E \geq 13$. 0-8. This indicates a sub-group within Group B which is extroverted and not too neurotic.

4. $N \leq 9$, $L \geq 3$. 1-7. This should be viewed in relation to statement 1. This group is higher on neuroticism, therefore, the higher L Score here indicates more rigidity and naivete for Group B.

5. $N \geq 14$, $L \leq 2$. 1-7. Also $N \geq 12$, $L \leq 2$. 11-3. This indicates a large sub-group of Group A which is willing to endorse a large number of "neurotic" items and which is more psychologically sophisticated and less compulsive.

6. $N \geq E$. 15-6. This indicates a very large sub-group of Group A for which the neurotic items endorsed exceed the extroversion items suggesting a more tense, worrying, seclusive group.

Since a summary of these results would defeat the purpose of their delineation, none will be done, except to point out that, particularly in the case of the 16PF, the results of the graphs may have capitalized on the nuances of the error variance. It should be recalled that the statisical results indicate differences on the MMPI but not on the 16PF. It is hoped that the manner of reporting these results will provide other researchers in this area with diverse and more specific guidelines for their work. Had the number of subjects been larger in this study, it would have been interesting to attempt to further break down the subjects on the basis of astrological progressions and transits. Another interesting procedure might be to include only those subjects whose progressed charts

from birth to the time of testing had an unusually large number of either

harmonious or discordant progressed aspects, supposedly signifying a

large number of either harmonious or stressful major periods in the

subject's life which had already been experienced. In addition, controls

for sun and moon signs might be helpful. Another approach would be to

compare persons whose charts showed, for example, a large number of nega-

tive aspects to a pa rticular planet with persons whose charts showed no

aspects to that planet. Appendix D provides a breakdown of the aspects

which occurred in the charts of this study. It also provides a frequency

distribution of the sun and moon signs.

It is clear that differences exist between Group A and Group B. The

specific kinds of differences could be a result of the population sampled

(college level volunteers for an experiment on astrology and personality)

or the specific kinds of aspects in the natal charts. For example, Group

A appeared to be less conventional than Group B. It is possible that

lack of conventionality blends harmoniously with the life-style of a

university student. In another setting, e.g., military or religious,

conventionality which is appropriate to the setting may be a more

fitting personality characteristic. On the other hand, the specific

kinds of aspects in the natal charts may be predictive of certain per-

sonality disturbances. Anyone wishing to replicate the results of this

study should take these factors into account.

TABLE 1

MANOVA - TWO-WAY ANALYSIS OF VARIANCE

MMPI - All Scales

	F (13, 33)	p ≥ F
Sex	0.795	.661
*Group	1.950	.060
*Group x Sex	1.525	.160

16PF - All Scales

	F (16, 30)	p ≥ F
*Sex	1.637	.119
Group	0.835	.640
Group x Sex	0.608	.852

* (p < .20)

TABLE 2A

MULTIPLE LINEAR REGRESSION - MMPI

	F	p ≥ F
Males Group A vs Males Group B	1.02	.472
Scale -		
L	1.789	.206
F	0.019	.887
K	0.236	.641
*1	3.477	.087
2	0.361	.566
3	0.982	.655
4	0.452	.521
5	0.066	.796
6	0.357	.568
7	0.054	.814
8	0.246	.634
9	0.402	.545
0	0.606	.542
Females Group A vs Females Group B	2.49	.077
Scale -		
L	0.023	.877
F	0.045	.829
*K	3.878	.075
1	0.627	.548
2	1.062	.329
3	0.001	.976
4	1.850	.202
5	0.017	.895
6	1.567	.238
*7	4.244	.064
8	0.763	.593
*9	3.502	.088
*0	7.876	.018
All Group A vs All Group B		
Scale -		
*L	3.803	.056
*F	1.740	.193
K	0.545	.528
1	0.675	.578
2	0.377	.550
3	1.800	.285
*4	4.460	.040
5	0.015	.898
6	0.287	.602
*7	3.615	.062
8	0.007	.933
*9	4.368	.042
*0	2.524	.117

* (p < .20)

TABLE 2B

MULTIPLE LINEAR REGRESSION - 16PF

	F	p ≥ F
Males Group A vs Males Group B	0.566	.842
Scale -		
A	0.341	.580
B	0.422	.539
C	0.730	.578
E	0.919	.632
F	0.339	.581
G	0.769	.590
H	1.654	.233
I	0.139	.718
L	0.182	.683
M	0.372	.564
N	1.722	.224
O	0.000	.985
Q_1	0.606	.536
Q_2	0.697	.567
Q_3	0.052	.819
Q_4	0.031	.859
Females Group A vs Females Group B	1.998	.179
Scale -		
A	0.666	.554
*B	2.245	.176
C	0.158	.703
E	1.264	.298
F	0.895	.622
G	0.045	.831
H	0.002	.964
I	1.005	.351
L	0.508	.504
M	0.057	.812
N	0.085	.774
O	0.795	.594
*Q_1	5.549	.049
Q_2	0.178	.687
Q_3	6.680	.035
Q_4	0.779	.589
All Group A vs All Group B		
Scale -		
A	0.561	.534
B	0.196	.664
C	0.000	1.000
E	0.518	.516

TABLE 2B

MULTIPLE LINEAR REGRESSION - 16PF

	F	p > F
All Group A vs All Group B (Cont'd.)		
Scale -		
F	0.206	.657
G	1.215	.278
H	0.365	.556
I	0.981	.669
L	0.099	.752
M	0.065	.796
*N	2.549	.116
O	0.010	.916
*Q_1	2.069	.157
Q_2	0.480	.500
Q_3	0.168	.687
Q_4	0.501	.509

* ($p < .20$)

TABLE 3

MULTIPLE DISCRIMINANT ANALYSIS

MMPI

| | Number of Female Subjects Classified | |
	Correctly	Incorrectly
Group A	10	1
Group B	13	0

| | Number of Male Subjects Classified | |
	Correctly	Incorrectly
Group A	10	3
Group B	9	3

| | All Subjects Classified | |
	Correctly	Incorrectly
Group A	21	3
Group B	24	1

16PF

| | Number of Female Subjects Classified | |
	Correctly	Incorrectly
Group A	10	1
Group B	13	0

| | Number of Male Subjects Classified | |
	Correctly	Incorrectly
Group A	10	3
Group B	11	1

| | All Subjects Classified | |
	Correctly	Incorrectly
Group A	17	7
Group B	18	7

TABLE 4A

INDIVIDUAL SCALES - MMPI

	Source	F	p ⋗ F
Scale L			
	Sex	0.084	.770
	*Group	5.662	.020
	Sex x Group	0.536	.526
Scale F			
	Sex	1.594	.211
	Group	0.743	.602
	Group x Sex	0.237	.634
Scale K			
	Sex	0.955	.665
	*Group	3.386	.069
	Group x Sex	0.203	.659
Scale 1			
	Sex	0.153	.700
	Group	0.391	.542
	*Group x Sex	3.402	.068
Scale 2			
	*Sex	1.872	.175
	Group	1.039	.314
	Group x Sex	0.447	.514
Scale 3			
	Sex	1.249	.269
	Group	0.009	.924
	*Group x Sex	2.178	.143
Scale 4			
	Sex	0.087	.767
	Group	1.055	.311
	Group x Sex	0.006	.939
Scale 5			
	Sex	0.461	.508
	*Group	4.141	.045
	Group x Sex	0.131	.719
Scale 6			
	Sex	0.099	.753
	Group	0.015	.899
	Group x Sex	0.041	.835
Scale 7			
	Sex	0.054	.813
	Group	1.052	.311
	Group x Sex	0.251	.624
Scale 8			
	Sex	0.054	.813
	Group	1.052	.311
	Group x Sex	0.251	.624

TABLE 4A

INDIVIDUAL SCALES - MMPI

Source	F	p ≥ F
Scale 9		
Sex	0.634	.564
*Group	1.787	.185
Group x Sex	0.292	.598
Scale 0		
Sex	0.577	.542
Group	0.375	.550
Group x Sex	0.151	.701

* (p ‹ .20)

TABLE 4B

INDIVIDUAL SCALES - 16PF

	Source	F	p ⋗ F
Scale A			
	Sex	0.410	.533
	Group	0.410	.533
	Group x Sex	0.333	.574
Scale B			
	Sex	0.978	.671
	Group	0.978	.671
	*Group x Sex	2.978	.088
Scale C			
	Sex	0.393	.541
	Group	0.117	.734
	Group x Sex	0.349	.564
Scale E			
	Sex	0.080	.776
	Group	0.017	.891
	*Group x Sex	2.840	.095
Scale F			
	Sex	1.303	.259
	Group	0.290	.599
	Group x Sex	0.072	.786
Scale G			
	Sex	0.612	.556
	Group	0.393	.541
	Group x Sex	0.012	.911
Scale H			
	Sex	0.005	.944
	Group	0.038	.840
	Group x Sex	0.008	.925
Scale I			
	Sex	1.454	.232
	Group	1.454	.232
	Group x Sex	0.014	.902
Scale L			
	Sex	0.030	.859
	Group	0.233	.637
	Group x Sex	0.096	.756
Scale M			
	*Sex	1.819	.181
	Group	0.075	.782
	Group x Sex	1.502	.225
Scale N			
	*Sex	4.549	.036
	Group	1.305	.258
	Group x Sex	0.027	.865

TABLE 4B

INDIVIDUAL SCALES - 16PF

Source	F	p - F
Scale O		
Sex	0.178	.679
Group	0.445	.515
Group x Sex	0.013	.905
Scale Q_1		
Sex	0.444	.515
*Group	4.511	.037
Group x Sex	0.002	.961
Scale Q_2		
Sex	0.000	.991
Group	0.938	.660
Group x Sex	0.175	.681
Scale Q_3		
Sex	1.400	.241
Group	1.400	.241
*Group x Sex	2.564	.113
Scale Q_4		
Sex	0.743	.603
Group	0.568	.538
Group x Sex	0.003	.957

* ($p < .20$)

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FOOTNOTES

FOOTNOTES

[1]B. I. Silverman and M. Whitmer, "Astrological Indicators of Personality," Journal of Psychology, 1971, 77, 91-92.

[2]L. George, A-Z Horoscope Maker and Delineator (St. Paul, Minnesota: Llewellyn Publications, 1970), 68.

[3]Ibid.

[4]Ibid., 91

[5]Ibid.

[6]S. Omarr, My World of Astrology (New York: Fleet Publishing Co., 1970), 18.

[7]H. V. Werthmann, "Astrologie und Psychologie - Eine Vergleichende Experimentelle Studie Teil I," Zeitschrift fur Parapsychologie und Grenzgebiete der Psychologie, 1971, Nr.3, 155-162.

[8]B. J. Winer, Statistical Principles in Experimental Design (New York: McGraw-Hill, 1962).

APPENDIX A

NOTES ON HOROSCOPE CALCULATIONS

APPENDIX A

NOTES ON HOROSCOPE CALCULATIONS

Calculating Sidereal Time of Birth

For each day of any month and year, the ephemeris will list the

sidereal time at noon (or midnight), Greenwich Mean Time. This is rather

like comparing two clocks in order to synchronize events. For example,

at noon GMT, January 2, 1939, the sidereal time was 18:44:55, i.e., 18

hours, 44 minutes and 55 seconds (it is based on a 24-hour cycle).

Setting this aside for a moment, if the person were born at 10:00 p.m.

at latitude 49° 16' N and longitude 123° 06' W (Vancouver, B.C.), one

would then calculate the Mean Local Time. When this person was born, it

was 10:00 p.m. at longitude 120° W. For the sake of convenience, all

locations within the Pacific Time Zone use the same time, but this time is

precisely accurate only for those locations along longitude 120° W. In

this instance, the location is 3° 06' to the west of 120° W. For each

degree of deviation, the precise time deviates 4 minutes; thus for 3° 06'

of deviation, the time deviates slightly more than 12 minutes. Since the

deviation is to the west, one subtracts 12 minutes from the recorded

birth time. That is, when it was 10:00 p.m. along longitude 120° W, it

was only 9:48 p.m. in Vancouver. (A gross analogy is that when it is

10:00 p.m. in New York, it is 9:00 p.m. in Chicago.) This precise

measure of time is called Mean Local Time.

Since the sidereal time for noon is known, one now notes that the

person was born 9 hours and 48 minutes after noon. Therefore, one simply

adds 9 hours and 48 minutes to 18 hours and 44 minutes. (Had the Mean

Local Time been 9:48 a.m., since this is two hours and 12 minutes before

noon, one would have subtracted two hours and 12 minutes from 18 hours and

44 minutes.) The result is 28 hours and 33 minutes. Whenever the re-

sult exceeds 24 hours 0 minutes, subtract 24 hours. This yields the

sidereal time of birth - 4:33 (some further calculations are needed

for minor adjustments to yield a sidereal time of approximately 4:36

but the above suffices for the general technique).

Equal House Method

This technique is simpler than the Placidean method. One calculates

the ascendant, for example at 14° Virgo. The cusp of the second house is,

then, 14° Libra; the cust of the third, 14° Scorpio, etc. The effect

of this is that, for some natal charts, planets may be in houses different

than the houses they were in when the Placidean method was used. Astrolo-

gers consider this difference important because the interpretation of a

chart partly depends on the house positions of planets. For the chart

in Figure 7, the planet saturn would be shifted from the eighth house to

the seventh house under the Equal House Method. The cusp of the eighth

house would be 14° Aries and since saturn lies at 12° Aries, it would fall

just short of the eighth house.

Since astrologers appear evenly split as to which method is more

accurate for interpretation, a research project relying on the house

position of planets would have to select horoscopes in which the planets'

house position was the same under both methods.

Examples from an Ephemeris for January, 1939, noon GMT

Day	☉ ° ♑ '		☾ ° ♉ '		☿ ° ♐ '		etc.
1	10	10	10	42	17	34	
2	11	12	24	30	18	29	
3	12	13	8 ♊ 48		19	29	

etc.

The Progressed Horoscope

The most widely used system of progressions is called Secondary Directions. Explanations of other techniques can be found in standard astrology texts.

Progressions are generally used for the prediction of events, including psychological events; however, they can also be used historically, that is, to review the person's life history from birth to the present.

The technique is "a day for a year." To make a prediction in a person's life for his fifth birthday, one calculates a horoscope for the fifth day after the original birthday, using the original longitude, latitude and birth time. For this progressed horoscope, the planets will have slightly changed their positions relative to the original birth chart, the extent of the change depending on the apparent speed of a given planet. For example, the moon will have changed more than the sun, which in turn would have changed more than, say, saturn or uranus. For the prediction, one pays particular attention to whether or not these planets, in their new, progressed positions, form any of the significant angular relationships among themselves and to the planets in the original birth chart, e.g., 90°, 120°, etc. However, whereas an "orb of influence" of 7°-8° is permitted for a broad interpretation of the natal chart, an orb of only 1° is allowed for angular relationships formed by pro-gressed planets - either among themselves or to the natal planetary positions. This limited orb is in concordance with the precise demands inherent in locating the timing of an event. Progressions generally purport to describe the nature of a period of the person's life - from a month to perhaps 2-3 years, depending on the apparent speed of the planets involved, which affects the rapidity with which the angular

relationships are formed and dissolved. Thus if the progressed moon (which moves quickly) forms a 90° angle to saturn one would predict a rather sedated, sorrowful period extending over a month, but if the sun forms a 90° angle to saturn, one would predict the period to extend over a year, since the sun moves more slowly. Thus it would have been highly desirable to control for these hypothesized effects in the present research, but also highly impractical.

For any point in time which is of interest, one can calculate a progressed chart. If one is interested in the person's 25th year, one calculates the chart as though the person were born 25 days past the actual birth day. If one wishes to predict for 25 years, three months, then one calculates for 25-3/12 days past the original time and day. All these calculations must be done with the aid of the ephemeris, which lists planetary positions, and the table of houses, which lists the house cusp signs and degrees.

APPENDIX B

16PF DISCRIMINANT WEIGHTS
and
MMPI DISCRIMINANT WEIGHTS

APPENDIX B

16PF DISCRIMINANT WEIGHTS

Scale	Females A	Females B	Males A	Males B	All A	All B
1	-3.424	-2.382	1.102	1.673	1.387	1.608
2	-8.563	-5.666	-7.048	-7.827	-0.163	-0.307
3	22.636	21.764	-18.484	-17.148	4.029	4.029
4	-7.835	-5.202	-6.432	-5.467	1.259	1.516
5	0.431	-1.390	-13.836	-13.196	-1.144	-1.294
6	0.924	0.526	20.601	19.425	2.847	2.511
7	5.275	5.389	40.392	37.546	3.998	3.702
8	13.103	11.681	4.527	4.769	2.145	2.351
9	0.567	1.518	6.230	5.996	0.690	0.755
10	3.784	3.217	14.850	14.162	1.603	1.502
11	-0.385	-0.758	18.880	17.788	3.547	3.220
12	13.999	12.161	10.043	10.059	4.114	4.146
13	29.337	24.112	10.834	10.080	4.906	4.411
14	10.286	9.524	20.726	19.889	5.711	5.492
15	19.505	15.753	1.949	2.099	2.662	2.559
16	17.864	14.875	-8.551	-8.392	0.905	0.682
Constant	381.689	308.838	308.035	280.658	120.180	110.370

MMPI DISCRIMINANT WEIGHTS

Scale	Females A	Females B	Males A	Males B	All A	All B
1	3.888	3.937	-0.264	0.006	1.177	1.362
2	6.690	6.601	1.343	1.360	0.883	0.798
3	3.765	4.301	6.835	6.699	2.983	3.056
4	-2.479	-2.716	-1.823	-1.459	-0.566	-0.493
5	-4.369	-4.666	-0.690	-0.618	-0.144	-0.183
6	4.310	4.300	-0.162	-0.378	0.160	0.059
7	2.781	3.077	-0.091	0.000	-0.267	-0.134
8	4.447	4.422	0.628	0.647	0.760	0.755
9	4.827	5.165	2.375	2.269	1.071	1.113
10	-10.371	-11.383	0.835	0.792	-0.422	-0.600
11	6.311	6.671	-1.993	-2.091	-0.205	-0.213
12	2.326	2.713	1.709	1.770	1.608	1.722
13	6.279	6.996	3.518	3.369	1.944	2.061
Constant	808.926	865.258	340.916	346.869	244.745	261.058

APPENDIX C

16PF TEST DESCRIPTIONS
and
MMPI TEST DESCRIPTIONS

APPENDIX C

16PF TEST DESCRIPTIONS

Low Score Description	Scale	High Score Description
Reserved, Detached, Critical, Aloof, Stiff	A	Outgoing, Warmhearted, Easy-going, Participating
Less Intelligent, Concrete thinking	B	More Intelligent, Abstract thinking, Bright
Affected by Feelings, Emotionally Less Stable, Easily Upset	C	Emotionally Stable, Mature, Faces Reality, Calm
Humble, Mild, Easily Led, Docile, Accomodating	E	Assertive, Agressive, Stubborn, Competitive
Sober, Taciturn, Serious	F	Happy-Go-Lucky, Enthusiastic
Expedient, Disregards Rules	G	Conscientious, Persistent, Moralistic, Staid
Shy, Timid, Threat-Sensitive	H	Venturesome, Uninhibited, Socially Bold
Tough-Minded, Self-Reliant, Realistic	I	Tender-Minded, Sensitive, Clinging, Overprotected
Trusting, Accepting Conditions	L	Suspicious, Hard to Fool
Practical, "Down-to-Earth" concerns	M	Imaginative, Bohemian, Absent-Minded
Forthright, Unpretentious, Genuine but Socially Clumsy	N	Astute, Polished, Socially Aware
Self-Assured, Placid, Secure, Complacent, Serene	O	Apprehensive, Self-Reproaching, Insecure, Worrying, Troubled
Conservative, Respecting Traditional Ideas	Q_1	Experimenting, Liberal, Free-thinking
Group-Dependent, A "Joiner" and Sound Follower	Q_2	Self-Sufficient, Resourceful, Prefers own Decisions
Undisciplined Self-Conflict, Lax, Follows Own Urges, Careless of Social Rules	Q_3	Controlled, Exacting Will Power, Socially Precise, Compulsive
Relaxed, Tranquil, Unfrustrated, Composed	Q_4	Tense, Frustrated, Driven, Overwrought

APPENDIX C

MMPI TEST DESCRIPTIONS

Scale

L   Higher scores indicate a greater claim to human virtues.
Lower scores suggest more psychological sophistication.

F   Higher scores indicate deviancy from social norms.

K   Higher scores indicate a denial of problems, lower scores, admission to problems. It also acts as a correction factor for Scales 1, 4, 7, 8 and 9.

1   Higher scores indicate a great concern with somatic symptoms.

2   Higher scores indicate a greater degree of moodiness and worry.

3   Higher scores indicate immaturity and suggestibility. Interpretation of moderate scores varies with the profile pattern.

4   Higher scores suggest hostility beneath superficial geniality.

5   Higher scores represent deviance from the cultural sex role in terms of interest patterns. Lower scores indicate adherence to the role.

6   Most of the items of this scale are obvious in their paranoid content so that higher scores are a frank admission of bizarre thinking.

7   Higher scores indicate admission to guilt, anxiety and preoccupation.

8   Higher scores suggest eccentricity and seclusiveness or unusual and confused thinking.

9   This scale might be said to measure energy with higher scores suggesting restlessness and unstable elation.

10   Higher scores indicate avoidance of or lack of interest in social interaction.

APPENDIX D

FREQUENCIES OF NATAL ASPECTS
and
FREQUENCIES OF SUN AND MOON SIGNS

APPENDIX D

FREQUENCIES OF NATAL ASPECTS

H = Harmonious aspect, i.e., 120° or 60°
D = Discordant aspect, i.e., 180° or 90°
C = Conjunction or 0

	A-B			A-B
Sun H Moon	2-7		Moon H Saturn	5-4
D	10-4		D	3-8
C	1-1		C	0-1
Sun H Mars	8-0		Moon H Uranus	6-5
D	3-4		D	3-7
C	1-4		C	1-1
Sun H Jupiter	12-3		Moon H Neptune	7-5
D	1-6		D	0-4
C	1-1		C	2-1
Sun H Saturn	3-0		Moon H Pluto	9-7
D	2-8		D	2-3
C	1-1		C	3-2
Sun H Uranus	9-3		Mercury H Mars	7-4
D	4-3		D	1-5
C	0-3		C	1-2
Sun H Neptune	5-6		Mercury H Jupiter	5-4
D	0-2		D	3-2
C	1-0		C	1-0
Sun H Pluto	5-8		Mercury H Saturn	5-2
D	1-4		D	3-6
C	2-3		C	3-0
Moon H Mercury	9-6		Mercury H Uranus	7-2
D	2-2		D	2-5
C	1-0		C	0-0
Moon H Venus	7-6		Mercury H Neptune	3-5
D	2-4		D	2-8
C	1-0		C	4-0
Moon H Mars	6-4		Mercury H Pluto	8-2
D	1-9		D	1-1
C	1-2		C	3-1
Moon H Jupiter	6-3		Venus H Mars	12-2
D	3-3		D	1-6
C	2-1		C	4-3

APPENDIX D

FREQUENCIES OF NATAL ASPECTS

	A-B
Venus H Jupiter	2-1
D	2-5
C	3-3
Venus H Saturn	13-3
D	1-6
C	1-1
Venus H Uranus	5-4
D	6-5
C	2-0
Venus H Neptune	4-3
D	1-1
C	2-1
Venus H Pluto	5-1
D	1-4
C	1-2
Mars H Jupiter	6-2
D	1-8
C	3-0
Mars H Saturn	8-3
D	1-5
C	5-7
Mars H Uranus	7-4
D	2-4
C	1-2
Mars H Neptune	2-4
D	7-1
C	3-0
Mars H Pluto	3-1
D	0-2
C	2-2

FREQUENCIES OF SUN AND MOON SIGNS

	Sun A-B	Moon A-B
Aries	3-4	3-2
Taurus	1-0	1-1
Gemini	0-3	2-2
Cancer	0-1	1-1
Leo	6-3	3-3
Virgo	5-1	3-2
Libra	4-0	3-2
Scorpio	1-3	1-1
Sagittarius	3-6	4-3
Capricorn	0-1	0-4
Aquarius	0-2	1-3
Pisces	1-1	2-1