نصوص نفسية في علم النفس التجريبي

إعداد

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المفاهيم الأساسية

MAJOR CONCEPTS

السلوكية Behaviorism

أحد المداخل في علم النفس، تطورت بواسطة واطسون الذى قيد الفحص بالسلوك الظاهر والقابل للملاحظة.

Behaviorism

An approach with in psychology, developed by I Wastson the restricts investigation to overt, observable behavior

الإشراط الكلاسيكي Classical Conditioning

العملية المؤكدة بواسطة بافلوف فيها يصبح المثير المحايد سابقا المثير علي إظهار الأستجابة بسبب تزامله مع المثيرات التي تحفزأوتوماتيكيا نفس الأستجابة أو الاستجابة المشابهه.

Classical Conditioning

A process, emphasized by Pavlov, in which a previously neutral stimulus of its association with a stimulus than automatically produces the same or a similar response

التعميمGeneralization

في الإشراط، تزامل الاستجابة مع مثير مشابه للمثيرات التي تحفز نفس الاستجابة الأصلية مشروطة أو ملحقة بها.

Generalization

In conditioning, the association of a response with stimulus similar to the stimulus to which the response was originally conditioned or attached

التمييز Discrimination

في الإشراط، الاستجابة المميزة للمثير المعتمد علي أيهما له تزامل اللذة، والألم ،أو أحداث محايدة.

Discrimination

In conditioning, the differential response to stimulus depending on whether they have been associated with pleasure, pain, or neutral events

الأنطفاءExtinction

في الاشراط، الأضعاف المتدرج للتزامل بين المثيرات والاستجابة في الاشراط الكلاسيكي بسبب أن المثيرات المشروطة لا تتبع كثيرا خلال مثيرات غير مشروطة ، وفي الاشراط الاجرائي بسبب الاستجابة لا تتبع كثيرا بالتعزيز.

Extinction

In conditioning, the progressive weakening of the association between a stimulus and a response: in classical conditioning because the conditioned stimulus is no longer followed by the unconditioned stimulus: and on operant conditioning because the response is no longer followed by reinforcement

رد الفعل الإنفعالي المشروط Conditioned Emotional Reaction

مصطلح لواطسون، وراينر لتطور لتطور رد فعل إنفعالي لمثير محايد مثل في حالة خوف ألبرت الصغير من الفئران.

Conditioned Emotional Reaction

Watson and Rayner's term for the development of an emotional reaction to a previously neutral stimulus, as in little Albert's fear of rats

التعلم ومحو التعلم واعادة التعلم Learning , De-Learning and Re-Learning

التعلم يعتبر السلوك نتيجة للخبرة والممارسة اما محو التعلم فيتم عن طريق الانطفاء واعادة التعلم يحدث بعد الانطفاء يتعلم سلوك جديد وهذه السلسلة من عمليات لبتعلم تحدث في التربية والارشاد النفسي والعلاج النفسي

Learning , De-Learning and Re-Learning

Learning considers behavior as a result of experience and practice. Erasing learning is done through extinguishing and re-learning. After the extinguishment, a new behavior is learned. This series of learning processes occurs in education, psychological counseling, and psychotherapy.

المثير والاستجابة Stimulus and Response

كل سلوك " استجابة" له مثير واذا كانت العلاقة بين المثير والاستجابة سوية كانت الاستجابة سوية واذا كانت العلاقة مضطربة كان السلوك غير سوى ويحتاج الى دراسة ومساعدة

Stimulus and Response

Every “response” behavior has a stimulus, and if the relationship between the stimulus and the response is normal, the response is normal, and if the relationship is disturbed, the behavior is only and needs study and assistance

الدوافع والدافعية في عملية التعلم Motive and Motivation in learning

لا تعلم بدون دافع والدافع طاقة فورية بدرجة كافية تدفع الفرد وتحركه الى السلوك والدافع اما موروث كالجنس او ثانوي مثل الخوف وعن طريق التعلم يكتسب الفرد دوافع ثانوية تقوم على الدرافع الفسيولوجية الاولية وهذه تسمى الحاجات ولها صفة الدافعية وتحدد السلوك

Motive and Motivation in learning

You do not learn without a motive, and the motive is an immediate enough energy that drives the individual and moves him to behavior. The motive is either inherited, such as sex, or secondary, such as fear. Through learning, the individual acquires secondary motives based on the primary physiological motives, and these are called needs and have the character of motivation and determine behavior

التعزيز Rinforcement

هو التقوية والتثبيت بالاثابة والسلوك يتعلم ويقوى ويدعم ويثبت اذا تم تعزيزه والتعزيز قد يكون اثابة اولية مثل اشباع دافع فسيولوجي اولتكرار السلوك المعزز ويرتبط مفهوم التعزيز باسم " كلارك هل" و" ثورنديك" من خلال قانون الاثر.

Rinforcement

It is reinforcement and fixation with reward. Behavior learns, strengthens, supports and proves if it is reinforced. The reinforcement may be primary reward such as satisfying a physiological motive or repeating the reinforced behavior. The concept of reinforcement is linked to the name “Clark Hull” and “Thorndike” through the law of effect.

الاقترانconjugation

هو التعاون الزمني بين حدوث مثيرين الاول محايد لا ينتج عنه اي استجابة من الاشخاص والثاني لديه القدرة على احداث رد فعل طبيعي وهى الاستجابة

conjugation

It is the temporal cooperation between the occurrence of two stimuli, the first is neutral, does not produce any response from the people, and the second has the ability to cause a natural reaction, which is the response

الشخصيةpersonality

تعرف من خلال النظرية السلوكية على انها مجموعة التنظيمات او الاساليب السلوكية المتعلمة الثابته نسبياً والتى تؤدي الى تميز الفرد عن غيره من الناس

personality

It is defined through the behavioral theory as a set of relatively stable educated behavioral organizations or methods that lead to the distinction of an individual from other people.

المتغير المستقلindependent variable

هو علاج يعالج به عالم النفس عن طريق افتراض ان هذا المتغير قد يسبب تأثيراً على متغير اخر مثل اثر النوم على التحصيل والقدرة على التركيز

independent variable

It is a treatment that the psychologist treats by assuming that this variable may cause an effect on another variable, such as the effect of sleep on achievement and the ability to focus.

المتغير التابعdependent variable

هو التاثير الذي يقيسه الباحث فتعد درجات التحصيل هى المتغير التابع

dependent variable

It is the effect that the researcher measures, so the degrees of achievement are the dependent variable

المتغير الدخيلIntruder variable

هو الذي يتدخل في التجربة دون ارادة من الباحث مثل الضوضاء

Intruder variable

It is he who interferes in the experiment without the will of the researcher, like noise

التجارب المعملية laboratory experiments

تعد احدى التجارب المعروفة بشكل كبير في المنهج التجريبي في علم النفس لانها تعمل على توفير ميزة التحكم في المتغيرات للاشخاص الذين يقومون بالتجربة والسلبية الوحيدة لهذه التجارب هى ان ما يمكن تطبيقه بالمختبر لا يتوافق بشكل دائم مع ما يحدث في الواقع

laboratory experiments

It is one of the well-known experiments in the experimental method in psychology because it works to provide the advantage of controlling variables to the people who do the experiment. The only negative of these experiments is that what can be applied in the laboratory does not always correspond to what is happening in reality.

التجارب الميدانية field experiments

يعتبر هذا النوع من التجارب مهما جدا لكونه يتيح للباحث رؤية السلوك والعمل في مجال واعدادات واقعية ولكن من الممكن ان يصعب على الباحثين القدرة على التحكم في المتغيرات

field experiments

This type of experiment is very important because it allows the researcher to see the behavior and work in a realistic field and settings, but it may be difficult for researchers to be able to control the variables

شبه التجاربsemi-experiences

تعرب بالتجارب الطبيعية حيث لا يكون للباحثين القدرة على السيطرة او التحكم بالمتغير المستقل وذلك يلجأ لتحديد مستوى العلاج من خلال الظروف الطبيعية للموقف

semi-experiences

Expressed by natural experiments, where researchers do not have the ability to control or control the independent variable, so they resort to determining the level of treatment through the natural conditions of the situation

التعلم الشرطيConditional Learning

يحدث التعلم نتيجة لمثير قبلي غير شرطى طبيعي وعند تكرار اقتران المثير غير شرطى مع مثير محايد يصبح للمثير المحايد نفس قوة المثير غير الشرطي ويولد نفس الاستجابة التى يولدها المثير غير الشرطي

Conditional Learning

Learning occurs as a result of a normal unconditioned pre-stimulus, and when the unconditioned stimulus is repeatedly paired with a neutral stimulus, the neutral stimulus has the same strength as the unconditioned stimulus and generates the same response as the unconditioned stimulus.

التعلم بالملاحظة Observation learning

يتعلم الفرد الاستجابات الجديدة في المواقف الاجتماعية من خلال ملاحظة السلوك النموذج وبذلك ينظر هذا الاتجاه الى الانسان على انه عضوية بيولوجية يجب ان تتفاعل مع البيئة لاجل البقاء كما ان التفاعل ليس عشوائيا ولكنه منظم ويتبع القوانين محددة وبذلك يوجد علاقة وظيفية بين سلوك الانسان وما يحدث في البيئة

Observation learning

The individual learns new responses in social situations by observing typical behavior. Thus, this trend views man as a biological organism that must interact with the environment in order to survive. The interaction is not random, but rather it is organized and follows specific laws. Thus, there is a functional relationship between human behavior and what happens in the environment.

التعلم الاجرائي procedural learning

اشار سكنر الى ان السلوك الاجرائي سلوك ارادي تزداد احتمالية حدوثه في المستقبل اذا اتبع بنتائج سارة

. procedural learning

Skinner pointed out that procedural behavior is a voluntary behavior that is more likely to occur in the future if it is followed with pleasant results

العادةHabit

هى رابطة تكاد تكون وثيقة بين المثير والاستجابة والعادات معظمها مكتسب من خلال تكرار الممارسة وليس متعلم فالانسان يولد ولديه استعداد موروث للكلام فاذا تعلم الكلام عنده استعداد واذا لم يتعلم عنده استعداد

Habit

It is an almost close link between the stimulus, the response, and the habits, most of which are acquired through repeated practice, and are not educated.

عجز السلوكBehavior Deficit

في رؤية للمرض النفسي، فشل تعلم استجابات التوافق .

Behavior Deficit

In the Skinnerian view of psychopathology, the failure to learn an adaptive response

استجابة غير متوافقة Maladaptive Response

في رؤية سكينر للمرض النفسي تعلم الاستجابة التي تكون متوافقة أو غير متوافقة أو غير مقبولة من الأفراد في البيئة.

Maladaptive Response

In the Skinnerian view of psychopathology, the learning of a response that is maladaptive or not considered acceptable by people in the environment

التقدير السلوكي Behavior Assessment

التأكيد في التقدير علي السلوكيات المحددة التي ترتبط بخصائص موقفية محددة (مثل طريقة ع.ث.س)

Behavior Assessment

The emphasis in assessment on specific behaviors that are tied to defined situational characteristics (e.g., ABC approach)

التعلم الاجتماعي Social Learning

فسر باندورا التعلم ليس من الضروري ان يحدث مع الانسان موقف ما يتعلم منه ولكن يمكنه التعلم من خلال الاخرين من خلال التعلم بالملاحظة والنمذجة والتقليد

Social Learning

Bandura's explanation Learning does not have to happen to a person in a situation from which he learns, but he can learn through others through learning by observation, modeling and imitation

التعلم المعرفي Cognitive Learning

دخل حديثاً عامل التعلم المعرفي ضمن عناصر تعريف النظرية السلوكية مضافاً الى الاثارة والاستجابة

Cognitive Learning

Recently, the cognitive learning factor has been included in the definition of behavioral theory, in addition to excitement and response

البنية Structure

في نظرية الشخصية هو المفهوم الذي يشير إلي المظاهر الأكثر ثباتا وبقاء في الشخصية.

Structure

In personality theory, the concept that refers to the more enduring and stable aspects of personality

العملية Process

في نظرية الشخصية هو المفهوم الذي يشير إلي مظاهر الدافعية في الشخصية ٠

Process

In personality theory , the concept that refers to the motivational aspeets of Personality

الدقةFidelity

مفهوم يشير إلي الدقة أو الوضوح في هذه النظرية فيما يتعلق بالظاهرة

Fidelity

A concept referring to the specificity or clarity with which a theory relates to phenomena

بيانات ح L-data

بيانات سجل الحياة أو المعلومات فيما يتعلق بالشخص التي يمكن الحصول عليها من تاريخ حياته أو سجل الحياة

L-data

Life record data or information concerning the person that can be obtained from their life history or life record

بيانات م O-data

بيانات الملاحظ أو المعلومات المقدمة بواسطة الملاحظين المعروفين مثل : الآباء، والأصدقاء، والمدرسين ٠

O-data

Observer data or information provided by knowledgeable observers such as parents, friends, or teachers

بيانات خ T-data

بيانات الاختبار أو المعلومات المتوفرة عن طريق الإجراءات التجريبية أو الاختبارات المقننة.

T-data

Test data or information obtained from experimental procedures or standardized tests

بيانات ث S-data

بيانات التقرير الذاتي أو المعلومات المقدمة بواسطة الشخص نفسه ٠

S-data

Self-report data or information provided by the subject

الصدقValidity

المدي الذي تعكس فيه ملاحظتنا الظواهر أو المتغيرات المهمة لنا ٠

Validity

The extend to which our observations reflect the phenomena or variables of interest to us

الثباتReliability

المدي الذي تكون فيه الملاحظات ثابته،وجديرة بالثقة ويمكن إعادتها بنفس الصورة ٠

Reliability

The extent data to which observations are stable, dependable, and can be replicated

البحث الاكلينيكي Clinical Research

طريقة للبحث تتضمن الدراسة المكثفة للأفراد بمعني ملاحظة مظاهر السلوك الحادث طبيعيا أو التقارير اللفظية لما يحدث في المواقف الطبيعية

Clinical Research

An approach to research involving the intensive study of individuals in terms of observation of naturally occurring behavior or verbal reports of what occurred in the natural setting

البحث التجريبي Experimental Research

إحدي طرق البحث فيها يعالج المجرب المتغيرات ويكون مهتما بالقوانين العامة٠في تعارض مع الطريقة التجريبية للبحث٠الاهتمام يكون بتأسيس علاقات السبب . الأثر بين متغيرات قليلة٠

Experimental Research

An approach to research in which the experimenter manipulates the variable and is interested in general laws , in contrast with the correlational approach to research Interest is in establishing cause-effect relationships among a few variables

البحث الارتباطي Correlational Research

أحدي طرق البحث فيها تكون الفروق الفردية الموجودة مقاسه ومرتبطة الواحدة بالأخري في تعارض مع الطريقة التجريبية للبحث٠

Correlational Research

An approach to research in which existing individual differences are measured and related to one another,in contrast with the experimentel approach to research

العجز المتعلم Learned Helplessness

مفهوم ينسب لسليجمان عن السلبية غير الملائمة وإنتاج جهد قليل من الخبرات المتكررة مع أحداث غير قابلة للضبط.

Learned Helplessness

Seligman s concept for inappropriate passivity and diminished effort resulting from repeated experiences with uncontrollable events.

المناطق الشبقيةErogenous Zones

وفقا لفرويد هي أجزاء الجسد التي تكون مصدرا للتوتر أو الأهتياج.

Erogenous Zones

According to Freud, those parts of the body that are the sources of tension or excitation

المرحلة الفمية Oral Stage

مفهوم لفرويد عن فترات من الحياة يكونخلالها المركز الرئيسى للاهتياج أو التوترالجسدي هو الفم.

Oral Stage

Freud's concept for that period of life during which the major center of bodily excitation or tension is the mouth

المرحلة الشرجيةAnal Stage

مفهوم لفرويد عن فترات من الحياة يكونخلالها المركز الرئيسى للاهتياج أو التوترهو الشرج.

Anal Stage

Freud's concept for that period of life during which the major center of bodily excitation or tension is the anus

المرحلة القضيبية Phallic Stage

مفهوم لفرويد عن فترات من الحياة يكونخلالها المركز الرئيسى للاهتياج أو التوتر يبدأ ليكون مركزا في أعضاء التناسل وخلالها يكون الأنجذاب للولد من الجنس المخالف.

Phallic Stage

Freud's concept for that period of life during which excitation or tension begins to he centered in the genitals and during which there is an attraction to the parent of the opposite sex

حسد القضيب Penis Envy

في نظرية التحليل النفسي، حسد الأنثي لامتلاك الذكر القضيب.

Penis Envy

In psychoanalytic theory, the female's envy of the male's possession of a penis

الاقتصاد الماديToken Economy

تبعا لنظرية سكينر في الاشتراط الاجرائي البيئة التي فيها يكافأ الأفراد بالمادة علي السلوكيات المرغوبة.

Token Economy

Following skinner's operant conditioning theory, environment in which individuals are rewarded with tokens for desirable behavior

الحافز الأولي Drive, Primary

في نظرية هول، المثيرات الداخلية الفطرية التي تنشط السلوك(مثل حافز الجوع).

Drive, Primary

In Hull's theory, an innate internal stimulus that activates behavior (e.g., hunger drive)

الحافز الثانوي Drive, Secondary

في نظرية هول ، المثيرات الداخلية المتعلمة، والمكتسبة خلال الارتباط بإشباع الحوافز الأولية التي تنشط السلوك (مثل القلق).

Drive, Secondary

In Hull's theory, a learned internal stimulus, acquired through association with the satisfaction of primary drives, that activates behavior (e.g., anxiety)

التعلم المؤثرInstrumental Learning

في نظرية المثير– الاستجابة، تعلم الاستجابات التي تكون مؤثرة من الموقف المرغوب.

Instrumental Learning

In S-R theory, the learned of responses that are instrumental in bringing about a desirable situation

التكوين اللفظي Verbal Construct

في نظرية التكوين الشخصي لكيللي هو التكوين الذي يمكن أن يكون معبرا عنه بالكلمات.

Verbal Construct

In Kelly's personal construct theory, a construct that can be expressed in words

التكوين قبل اللفظي Preverbal Construct

في نظرية التكوين الشخصي لكيللي هو التكوين الذي يستخدم لكن يمكن أن يكون معبرا عنه بالكلمات.

Preverbal Construct

In Kelly's personal construct theory, a construct that is used but cannot be expressed in words

التكوين المحجوب Submerged Construct

في نظرية التكوين الشخصي لكيللي هو التكوين الذي عبر عنه مرة بالكلمات لكن الآن المرء أو كل من طرفي التكوين لا يمكن أن يعبروا عنه لفظيا.

Submerged Construct

In Kelly's personal construct theory, a construct that once could be expressed in words, but now either one or bath pales of the construct cannot be verbalized

التكوين الجوهري Core Construct

في نظرية التكوين الشخصي لكيللي هو التكوين الذي يكون أساسا لنظام تكوين الشخص ولا يمكن أن يستبدل بدون تتابعات متنوعة بالنسبة لراحة النظام.

Core Construct

In Kelly's personal construct theory, a construct that is basic to the person's construct system and cannot be altered without serious consequences for the rest of the system

Contrast Pole

In Kelly's personal construct theory, contrast pole on a construct is defined by the way in which a therapy element is perceived as different from two other elements that are used to form a similarity pole

التكوين النافذ Permeable Construct

في نظرية التكوين الشخصي لكيللي هو التكوين الذي يسمح يسمح لعناصر جديدة بالدخول فيه.

Permeable Construct

In Kelly personal construct system, a construct that allows new elements into it

التكوين غير النافذ Impermeable Construct

في نظرية التكوين الشخصي لكيللي هو التكوين الذي لا يسمح يسمح لعناصر جديدة بالدخول فيه.

Impermeable Construct

In Kelly personal construct theory, a construct that does not allows new elements into it

التطبيق Tightening

في نظرية التكوين الشخصي لكيللي هو استخدام التكوينات لصنع نفس التنبؤات بغض النظر عن الظروف.

Tightening

In Kelly personal construct theory, the use of constructs to make the same predictions regardless of circumstances

التحرر Loosening

في نظرية التكوين الشخصي لكيللي هو استخدام نفس التكوين لصنع تنبؤات متنوعة.

Loosening

In Kelly personal construct theory, the use of the same construct to make varied predictions

المكون Constriction

في نظرية التكوين الشخصي لكيللي هو تضييق نظام الكوين كتقليل المتناقضات للحد الأدني.

Constriction

In Kelly personal construct theory, the narrowing of the construct system so as to minimize incompatibilities

التوسيع Dilation

في نظرية التكوين الشخصي لكيللي هو توسيع نظام التكوين جدا وسوف يكون أكثر شمولا.

Dilation

In Kelly personal construct theory, the broadening of a construct system 50 that it will be more comprehensive

العدوان (كيللي)(Kelly) Aggression

في نظرية التكوين الشخصي لكيللي هو النشاط المنتشر في نظام التكوين .

Aggression (Kelly)

In Kelly's personal construct theory, the active expansion of the person's construct system

العداء(كيللي)(Kelly) Hostility

في نظرية التكوين الشخصي لكيللي هو وضع سلوك الأخرين بطريقة متوقعة للصدق في نظام تكوين المرء الخاص.

Hostility (Kelly)

In Kelly's personal construct theory, making others behavior in an expected way to validate one's own construct system

اتساع النطاق Band width

مفهوم يشير إلي مدي الظاهرة المغطي من خلال النظرية.

خصر الخصاء Castration Anxiety

مفهوم لفرويد عن خوف الطفل المدرك أثناء المرحلة القضيبية، وأن الأب سوف يقطع قضيب الابن بسبب منافستهما الجنسية علي الأم.

عقدة أوديب Oedipus complex

مفهوم لفرويد يعبر عن أنجذاب الولد الجنسي للأم والخوف من الحصاء بواسطة الأب الذي يري كمنافس.

التوحد Identification

الشئ المكتسب مثل خصائص الذات وخصائص الشخصية المدركة لتكون جزءا من الآخرين (مثل الآباء).

Castration Anxiety

Freud's concept of the boy's fear, experienced during the Phallic Stage, that the father will cut off the son's penis because of their sexual rivalry for the mother

Oedipus complex

Freud's concept of the boy's sexual attraction to the mother and fear of castration by the father, who is seen as a rival

Identification

The acquisition, as characteristics of the self, of personality as characteristics perceived to be part of others (e.g., parents**)**

الشخصية القضيبية

مفهوم لفرويد عن نمط الشخصية الذي يعبر عن التثبيت علي المرحلة القضيبية من التطور ويكافح من أجل النجاح في المنافسة مع الأخرين.

العرض

في علم النفس المرضي هو التعبير عن الصراع النفسي أو التوظيف النفسي المضطرب، وفقا لفرويد هو التعبير المقنع عن الحافز المكبوت.

التداعي الطليق

في التحليل النفسي هو مستدعيات المريض للمحلل النفسي عن كل فكرة ترد إلي العقل.

الطرح

في التحليل النفسي هو تطوير المريض اتجاه ما للمحلل النفسي عن اتجاهات وأحاسيس ذات جذور بأشكال والدية في خبرات الماضي .

نظام سلوك التعلق (ن.س.ع)

مفهوم لبولبي يؤكد علي التشكيل المبكر للصلة بين الطفل والمانح الأساسي للرعاية بصفة عامة الأم.

نموذج التفعيل الداخلي

مفهوم لبولبي عن التمثيلات العقلية (التخييلات) المرتبطة بالأنفعال عن الذات والآخرين والذي يتطور خلال السنوات المبكرة من التطور.

Phallic Character

Freud's concept of personality type that expresses a fixation at the phallic stage of development and strives for competition with others

Symptom

In psychopathology, the expression of psychological conflict or disordered psychological functioning . for Freud, a disguised expression of a repressed impulse.

Free Association

In psychoanalysis, the patient's reporting to the analyst of every thought that comes to mind

Transference

In psychoanalysis, the patient's development toward the analyst of attitudes and feelings rooted in past experiences with parental figures

Attachment Behavior System

Bowlb's concept emphasizing the early formation of a bond between infant and caregiver, generally the mother

Internal Working Model

Bowlb's concept for the mental representations (images) associated with emotion, of the self and others that develop during the early years of development

الظاهراتية Phenomenology

إحدي الطرق داخل علم النفس التي تركز علي كيف يدرك الشخص ويخبر الذات والعالم.

مفهوم الذات Self-Concept

الإدراكات والمعاني المرتبطة بالذات وأنا.

المجال الظاهريPhenomenal Field

طريقة الفرد للإدراك والخبرة بعالمه.

الذات المثالية Ideal Self

مفهوم الذات لدي الفرد لما سوف يحب أن يمتلكه كثيرا وهو مفهوم أساسي في نظرية روجرز.

الأسلوب النسبي Q-Sort

إحدي أدوات التقييم ينسب فيها الشخص التعبيرات إلي فئات تالية للتوزيع الطبيعي ، استخدمت بواسطة روجرز كمقياس التعبيرات فيما يتصل بالذات والذات المثالية.

تحقيق الذات Self- Actualization

الميل الأساسي للكائن الحي لتحقيق،وتأكيد وتعزيز ذاته. مفهوم تأسس بواسطة روجرز وأعضاء آخرون في الحركة الإنسانية الكامنة.

تماسك الذات Self-Consistency

مفهوم لروجرز تعبيرا عن غياب الصراع بين إدراكات الذات .

الأنسجام Congruence

مفهوم لروجرز تعبيرا عن غياب الصراع بين الذات المدركة والخبرة.أيضا واحد من ثلاثة مواقف مقترحة كاحتمال النمو والتقدم العلاجي.

Phenomenology

An approach within psychology that focuses on how the person perceives and experiences the self and the world

Self-Concept

The perceptions and meaning associated with the self, me, or I.

Phenomenal Field

The individual's way of perceiving and experiencing his or her world

Ideal Self

The self-concept the individual would most like to possess, A key concept in Rogers's theory

Q-Sort

An assessment device in which the subject sorts statements into categories following a normal distribution, Used by Rogers as a measure of statements regarding the self and the ideal self

Self- Actualization

The fundamental tendency of the organism to actualize, maintain, and enhance itself A concept emphasized by Rogers and other members of the human potential movement

Self-Consistency

Rogers's concept expressing en absence of conflict among perception of the self

Congruence

Rogers's concept expressing en absence of conflict between the perceived self and experience Also one of three conditions suggested as essential for growth and therapeutic progress

عدم الأنسجام Incongruence

مفهوم لروجرز يعبر عن وجود تناقض أو صراع بين الذات المدركة والخبرة.

قبل الإدراك Subception

عملية مؤسسة بواسطة روجرز فيها يكون المثير مدركا إلي الوعي .

التحريف Distortion

وفقا لروجرز عملية تتغير فيها الخبرة عندما تكون واردةإلي الوعي في الشكل الذي يتسق مع الذات.

الإنكار Denial

ميكانيزم دفاعي تأسس بواسطة كلا من فرويد و روجرز فيه تكون الأحاسيس بالتهديد غير مسلم بها في الوعي.

الحاجة إلي التقدير الإيجابي Positive Regard, Need for

مفهوم لروجرز تعبيرا عن الحاجة للدفئ ، والحب والاحترام والقبول من الآخرين.

اعتبار الذات Self-Esteem

درجة تقييم الشخص للذات أو الأحكام الشخصية عن الكفاءة.

نظرية الكينونة Entity theory

مفهوم لدويك عن الاعتقادات التي تكون مطياعة وممكن كخاصية للشخصية.

نظرية الأضافة Incremental Theory

مفهوم لدويك عن الاعتقادات التي تكون راسخة ومطياعة وممكنة للتغيير كخاصية للشخصية

Incongruence

Rogers's concept of the existence of a discrepancy or conflict between the perceived self and experience

Subception

A process emphasized by Rogers's in which a stimulus is experienced without being brought into awareness

Distortion

According to Rogers, a defensive process in which experience is changed so as to be brought into awareness in a from that is consistent with the self

Denial

A defense mechanism, emphasized by both Freud and Rogers, in which threatening feeling are flot allowed into awareness

Positive Regard, Need for

Rogers's concept expressing the need for warmth, liking, respect, and acceptance from others

Self-Esteem

The person's evaluative regard for the self or personal judgment of worthiness

Entity theory

Dweck's concept for beliefs that a personality characteristic is fixed, nonmalleable

Incremental Theory

Dweck's concept for beliefs that a personality characteristic is fixed, nonmalleable or possible to change

العلاج المتمركز حول العميل Clinical–Centered Therapy

مصطلح روجرزي عن طريقتة المبكرة في العلاج فيه يكون الإستشاري من الاهتمامات بالطرق التي بها يدرك العميل الخبرة والعالم.

تناقض الذات والخبرةSelf– Experience Discrepancy

التأكيد الروجرزي علي احتمال الصراع بين مفهوم الذات والخبرة الأساس للعرض النفسي.

الانسجام Congruence

مفهوم لروجرز تعبيرا عن غياب الصراع بين الذات المدركة والخبرة أيضا واحد من ثلاثة شروط المعالج مقترحة كضرورة للنمو والتقدم العلاجي .

التقدير الإيجابي غير المشروط Unconditional Positive Regard

مصطلح روجرزي لقبول الشخص في الاجمال ، بطريقة غير مشروعة واحد من ثلاثة شروط المعالج مقترحة كضرورة للنمو والتقدم العلاجي.

الفهم الأمباثي Empathic Understanding

مصطلح روجرزي للقدرة علي فهم الخبرات والأحاسيس ومعانيها من نقطة انطلاق شخص آخر، واحد من ثلاثة شروط المعالج مقترحة كضرورة للنمو والتقدم العلاجي.

الحركة الكاملة الإنسانية Human potential Movement

مجموعة من متخصصي علم النفس تمثلو في روجرز وماثلو الذين أكدا علي تحقيق أو تكامل الفرد الكامن متضمنين الانفتاح علي الخبرة.

Clinical-Centered Therapy

Rogers's term for his earlier approach to therapy in which the counselor's attitude is one of interest in the ways in which the client experiences the self and the world .

Self- Experience Discrepancy

Rogers's emphasis on the potential for conflict between the concept of self and experience-that basis for psychopathology .

Congruence

Rogers's concept expressing an absence of conflict between the perceived self and experience . Also one of three therapist conditions suggested as essential for growth and therapeutic progress

Unconditional Positive Regard

Rogers's term for the acceptance of a person in a total, Unconditional way . One of three therapist conditions suggested as essential for growth and therapeutic progress

Empathic Understanding

Rogers's term for the ability to perceive experiences and feelings and their meanings from the stand

Human potential Movement

A group of psychologists represented by Rogers and Maslow, who emphasize the actualization or fulfillment of individual potential, including an openness to experience

الوجودية Existentialism

إحدي الطرق لفهم الأفراد والأجراء العلاجي مرتبطة بالحركة الكاملة الإنسانية التي تؤكد علي الظاهراتية وتهتم بالأصل في الوجود كشخصية مشتقة من حركة عامة أكثر في الفلسفة.

السمة Trait

الميل للتمسك بطريقة خاصة كتعبير عن سلوك لشخص عبر مدي من المواقف.

السمة الأصلية Cardinal Trait

مفهوم لألبورت عن الميل الذي يكون منحرفا وبارزا في حياة الشخص والذي يكون فعليا في كل فعل قادر علي التأثر بتأثيراتها.

السمة المركزية Central Trait

مفهوم لألبورت عن الميل للمسلك بطريقة خاصة في مدي من المواقف.

الميل الثانوي Secondary Disposition

مفهوم لألبورت عن الميل للمسلك بطريقة خاصة التي تلائم مواقف قليلة.

الاستقلال الوظيفي Functional Autonomy

مفهوم لألبورت بأن الدافع قد يصبح معتمدا في نشوئه _ خصوصا _ في الرشد قد تصبح معتمدة علي أساسها المبكر في خفض التوتر.

الطريقة الإيدوجرافية Idiographic Approach

إحدي الطرق المؤسسة بواسطة ألبورت فيها يعطي الأنتباه الخاص للدراسة المكثفة للأفراد وتنظيم متغيرات الشخصية في كل شخص.

التحليل العاملي Factor Analysis

طريقة إحصائية لتحديد تلك المتغيرات أو استجابات الاختبار التي تزيد أو تقل معا. استخدمت في تطوير اختبارات الشخصية ولبعض نظريات السمة(كاتل،إيزينك).

Existentialism

An approach to understanding people and conducting therapy, associated with the human potential movement, that emphasizes

phenomenology and concerns inherent in existing as a person.Derived from a more general movement in philosophy

Trait

A disposition to behave in a particular way, as expressed in a person's behavior over a range of situations

Cardinal Trait

Allport's concept for a disposition that is 50 pervasive and outstanding in a person's life that virtually every act is traceable to its influence

Central Trait

Allport's concept for a disposition to behavior in a particular way in a range of situations

Secondary Disposition

Allport's concept for a disposition to behavior in a particular way that is relevant to few situations

Functional Autonomy

Allport's concept that a motive may become independent of its origins: in particular, motives in adults may become independent of their earlier basis in tension reduction

Idiographic Approach

An approach emphasized by Allport in which particular attention is given to the intensive study of individuals and the organization of personality variables in each person

Factor Analysis

A statistical method for determining those variables or test responses that increase and decrease together Used in the development of personality tests and of some trait theories (e.g.Cattell, Eysenck)

العامل الأعلي Super Factor

الأمر الأعلي أو العامل الثانوي الممثل لمستوي أعلي من تنظيم عن العوامل الأولية من التحليل العاملي .

الأنبساطيةExtraversion

في نظرية أيزنك إحدي نهايتين في بعد الأنطوائية_الأنبساطية لخصائص الشخصية من خلال الميل أجتماعيا ،ودودا،٠٠٠٠٠ ومعا للمخاطرة.

الأنطوائيةIntroversion

في نظرية أيزنك إحدي نهايتين في بعد الأنطوائية_الأنبساطية لخصائص الشخصية من خلال الميل ليكون هادئا،ومتحفظا، ٠٠٠٠، ومتجنبا المخاطر.

العصابية Neuroticism

في نظرية أيزنك هو بعد الشخصية المعروف بالثبات والقلق المنخفض علي إحدي النهايتين وبعدم الثبات والقلق المرتفع علي النهاية الأخري.

الذهانية Psychoticism

في نظرية أيزنك هو بعد الشخصية المعروف بالميل إلي الأنعزال و٠٠٠٠ في إحدي النهايتين وبقبول العادات الأجتماعية و٠٠٠ بالآخرين علي النهاية الأخري.

المنهج ثنائي الشكل Bivariate Method

وصف كاتل لطريقة دراسة الشخصية التي تتبع التصميم التجريبي الكلاسيكي في التعامل مع أحد المتغيرات التابعة وملاحظة الأثر والمتغير المستقل.

Super Factor

A higher-order or secondary factor, representing a higher level of organization of traits than the initial factors derived from factor analysis

Introversion

In Eysenck's theory, one end the Introversion-extraversion dimension of personality characterized by a disposition to be quiet, reserved, reflective, and risk avoiding

Extraversion

In Eysenck's theory, one end the Introversion-extraversion dimension of personality characterized by a disposition to be sociable, friendly, Impulsive, and risk avoiding .

Neuroticism

In Eysenck's theory, a dimension of personality defined by stability and low anxiety at one end and by instability and high at the other end

Psychoticism

In Eysenck's theory, a dimension of personality defined by a tendency to be solitary and insensitive at one end and to accept social custom and care about others at the other end

Bivariate Method

Cattell's description of the method of personality study that follows the classical experimental design of manipulating an independent variable and observing the effects on a dependent variable

المنهج الإكلينيكي Clinical Method

وصف كاتل لطريقة دراسة الشخصية فيها يوجد اهتمام بنماذج معقدة من السلوك كما تحدث في الحياة لكن المتغيرات لا تقيم بطريقة نظامية.

المنهج متعدد الأشكال Multivariate Method

وصف كاتل لطريقة دراسة الشخصية المفضلة له فيها تدرس العلاقة المتباينة بين متغيرات عديدة في نفس الوقت .

سمات القدرة،والمزاج،والدينامية.Ability,Temperament, and Dynamic Traits

في نظرية السمة لدي كاتل تلك الفئات من السمات التي تحتوي علي المظاهر الأساسية في الشخصية.

السمة السطحية Surface Trait

في نظرية كاتل هي السلوكيات التي تبدو أن تكون مرتبطة الواحدة بالأخري لكن لا تكون كذلك في الحقيقة تتزايد وتتناقص معا.

السمة المصدرية Source Trait

في نظرية كاتل هي السلوكيات التي معا لتشكل البعد المعقد من الشخصية ،والتي تكشف عبر استخدام التحليل العاملي.

بيانات سجل الحياة (ب.س) L-Data

في نظرية كاتل بيانات سجل الحياة المرتبطة بالسلوك أو تقديرات من السلوك في مواقف الحياة اليومية .

بيانات الاستبيان Q-Data

في نظرية كاتل هي بيانات الشخصية المحرزة من الاستبيانات.

Clinical Method

Cattell's description of the method of personality study in which there is an interest in complex patteras of behavior as they occur in life but variables are not assessed in a systematic.

Multivariate Method

Cattell's description of the method personality study favored by him .in which there is study of interrelationships among many variables at once.

Ability, Temperament, and Dynamic Traits.

In Cattell's trait theory, these eategories of traits capture the major aspects of personality.

Surface Trait

In Cattell's theory, behaviors that appear to be linked to one another but do not in fact increase and decrease together.

Source Trait

In cattell's theory, behavior that vary together to from an independent dimension of personaliy, which is discovered through the use of factor analysis

L-Data

In cattell's theory, life-record data relating to behavior in everyday life situation or to ratings of such behavior

Q-Data

In cattell's theory, personality data obtained from questionnaires

بيانات الاختبار الموضوعي(ب.خ)OT-Data

في نظرية كاتل هي بيانات الاختبار الموضوعي أو المعلومات الشخصية المحرزة من السلوك الملاحظ في مواقف مصغرة.

وحدة الطاقة Erg

مفهوم كاتل عن الحوافز البيولوجية الفطرية التي تمد بأصل قوة الطاقة للسلوك.

الوجدانSentiment

مفهوم لكاتل عن النماذج المحددة نسبيا للسلوك الذي يعبر عن الاتجاهات (مثل الاستعداد للتصرف في اتجاه مركزي) وترتبط الطاقة الأساسية (مثل: الحوافز البيولوجية الفطرية).

الحالة State

التعبيرات الانفعالية والمزاجية (مثل القلق،الاكتئاب ،التعب) والتي أقترح كاتل إمكانية تأثرها بسلوك الشخص المقدم في الزمن .تقدير كل من الحالات والسمات يقترح التنبؤ بالسلوك.

الدورRole

السلوك المعتاد في كونه ملائما لمكانة الشخص أو منزلته في المجتمع .تأسس بواسطة كاتل كواحد من عدد من المتغيرات التي تحدد تأثير متغيرات الشخصية علي السلوك فيما يتصل بالمتغيرات الموقفية.

نموذج العوامل الخمسة نموذج العوامل الخمسةFive-Factor Model

أحذ الإجماع بين باحثي السمة بأنه يوجد خمسة أبعاد أو عوامل أساسية توصف كل سمات الشخصية الإنسانية.

OT-Data

La Cattell's theory, objective test data or information about personality obtained from observing behavior in miniature situations

Erg

Cattell's concept for innate biological drives that provide the basic motivating power for behavior

Sentiment

Cattell's concept for environmentally determined patteras of behavior that are expressed in attitudes (Le… readiness to act in a certain direction) and are linked to underlying ergs (I .e.. innate biological drives)

State

Emotional and mood changes (e.g. anxiety , depression , fatigue) that Cattell suggested may influence the behavior of a person at a given time The assessment of both traits and states is suggested to predict behavior

Role

Behavior considered to be appropriate for a person's place or status in society . Emphasized by Cattell as one of a number of variables that limit the influence of personality variables on behavior relative to situational variables

Five-Factor Model

An emerging consensus among trait researchers that there are five basic dimensions or factor to describe ail human personality traits .

الخمسة الكبار Big five

الأبعاد الخمسة المحددة بوضوح لتتضمن نموذج العوامل الخمسة العصابية، والأنبساطية، والأنفتاح، والملائمة، والحس الأخلاقي

(ع.س.ف.م.خ)QCEAN

اختصار لمسميات السمات الخمسة الأساسية : العصابية (ع) والأنبساطية(س) ،والأنفتاح (ف) ، والملائمة (م) ،والحس الأخلاقي (خ).

الأفتراض اللغوي الأساسي Fundamental Lexical Hypothesis

الأفتراض بأنه عبر الزمن أغلب الفروق الفردية المهمة في التفاعلات الإنسانية تكون كمصطلحات مفردة في اللغة.

الأوجه الصغيرة Factor

تكون الأوجه الصغيرة السمات الأكثر تحديدا أو (العناصر) التي تشكل كل من العوامل الخمسة الكبار _ علي سبيل المثال_ الأوجه الصغيرة للأنبساطية تكون مستوي النشاط، والميل إلي (التوكيدية)، والبحث عن الاستشارة، والانفعالات الإيجابية والاجتماعية، والدفء.

جدل الموقف – الشخص Person–Situation Controversy

الجدل بين الأخصائيين الذين يؤكدون علي أهمية المتغيرات الشخصية (الداخلية) في تحديد السلوك ،وهؤلاء الذين يؤكدون علي أهمية التأثيرات الموقفية (الخارجية).

التحديد الموقفيSituational Specificity

التأكيد علي السلوكك كمتباين وفقا للموقف في مقابل تأكيد منظروا السمة علي الأتساق في السلوك عبر المواقف.

Big five

The five broadly defined dimensions included in the five factor-Model: neuroticism, extraversion, openness, agreeableness, and

Conscicntiousness

QCEAN

The acronym for the five basic traits: Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism

Fundamental Lexical Hypothesis

The hypothesis that over time the most important individual differences in human interactions have been encoded as single terms into language

Factor

Factor are the more specific traits (or components) that make up each of the broad Big five factors . for example, factors of Extraversion are Activity Level, Assertiveness, Excitement seeking, positive Emotions, Gregariousness, and Warmth

Person-Situation Controversy

A controversy between psychologists who emphasize the importance of personal (internal) variables in determining behavior and those who emphasize the importance of situational (external) influences

Situational Specificity

The emphasis on behavior as varying according to the situation, as opposed to the emphasis by trait theorists on consistency in behavior across situations

سلوكيات الهدف (استجابات الهدف)(Target Behaviors (Target Responses

في التقدير السلوكي، تعيين سلوكيات محددة لكي تلاحظ وتقيس علاقة بالمتغيرات في أحداث البيئة.

التحليل الوظيفي Functional Analysis

في المداخل السلوكية وبصفة خاصة سكينر تعيين المثير البيئي بضبط السلوك.

تقدير ع.ت.س. ABC Assessment

في التقدير السلوكي التأكيد علي تعيين أحداث سابقة والتتابعات (ت) والسلوك (س). يتضمن التحليل الوظيفي للسلوك تعيين الظروف البيئية التي تنظم السلوكيات المحددة.

بحث أ. ب .أ(الضبط الخاص) ABA (Own-Control) Research

تباين الإسكنريين مع الطريقة التجريبية تتألف من مواجهة واحد إلي ثلاثة أوجه تجريبية: (أ) فترة خط الأساس. و(ب) تقديم المعززات لتغيير تتابع سلوكيات محددة. و(أ) انتزاع المعزز وملاحظة السلوكيات تعود إلي التتابع الأولي (فترة خط الأساس).

Target Behaviors (Target Responses)

In Behavioral assessment, the identification of specific Behaviors to be observed and measured in relation to changes in environment events

Functional Analysis

In behavioral approaches, particularly Skinnerian, the identification of the environmental stimuli that control behavior

ABC Assessment

In behavioral assessment, an emphasis on the identification of antecedent (A) events and the consequences (C) of behavior(B): a functional analysis of behavior involving identification of environmental conditions that regulate specific behaviors

ABA (Own-Control) Research

A Skinnerian variant of the experimental method consisting of exposing one subject to three experimental phases: (A) a baseline period, (B) introduction of reinforces to change the frequency of specific behaviors, and withdrawal of reinforcement and observation

of whether the behaviors return to their earlier frequency (baseline period)

طريقة العلامة Sign Approach

وصف ميتشيل لمداخل التقدير التي تستدل علي الشخصية من السلوك المختبر في تعارض مع مداخل الينة في التقدير.

طريقة العينة Simple Approach

وصف ميتشيل لمداخل التقدير التي فيها يوجد اهتمام بالسلوك وعلاقته بالمواقف البيئية في تعارض مع مداخل العلامة التي تستدل علي الشخصية من السلوك المختبر.

ا

Sign Approach

Michel's description of assessment approaches that infer personality from test behavior, in contrast with sample approached to assessment

Simple Approach

Michel's description of assessment approaches in which there is an interest in the behavior itself and its relation to environmental

conditions, in contrast to sign approaches that infer personality from test behavior

طرف التباين Contrast Pole

في نظرية التكوين الشخصي لكيللي يحدد طرف التباين في التكون من خلال طريقة إدراك عنصر ثالث يدرك كمختلف عن العنصرين الأخرين المستخدمين في تشكيل طرف التشابه.

Magnitude a property of measurement scales having to do with the fact that scale values can be ordered on the basis of magnitude: if A > B and B > C, then A >C

Magnitude of effect a calculation, such as rpb, that reveals the magnitude of the effect of the independent variable-how wrong the null hypothesis is

Magnitude estimation observers assign numbers to the attributes of stimuli usually without restriction except

that the numbers be assigned proportional to the judged magnitude (a ratio scale)

Main effect the condition in which the effect of one independent variable is the same at all levels of another independent variable

Mann-Whitney U test a nonparametric test to determine the difference between two samples

Mapping in problem solving, the set of correspondences between a source and target problem; how the two problems "map" onto each other

Masking the technique of presenting a jumbled visual stimulus immediately after a target stimulus in order to stop the visual persistence of the target

Matching attempting to make different groups of subjects equivalent based upon subject characteristics or scores on tests

Matched groups design an experimental design in which subjects are matched on some variable assumed to be correlated with the dependent variable and then randomly assigned to conditions

Materials a subsection of the methods section that de scribes any written or videotaped sketches, questionnaires, surveys, and so forth that were used to test

subjects

Measurement the systematic assignment of numbers or names to objects or attributes of objects

Measurement scales in order of increasing informative ness nominal, ordinal, interval, and ratio

Median a measure of central tendency; the middle score of a distribution, or the one that divides a distribution in half

Mediator a variable that provides the causal link between two variables; an underlying causal mechanism

Mental age the intellectual age of an individual as gauged by an IQ test in contrast to the chronological age

Mental workload an intervening variable, similar to attention, that modulates the tuning between the demands of the environment and the capability of the organism

Method a section of a technical paper that describes in detail the operations performed by the experimenter

Method of authority a method of fixing belief in which an authority's word is taken on faith (contrast with Empirical)

Intelligence mental age (as determined by a test) divided

by chronological age times 100

Interaction an experimental result that occurs when the levels of one independent variable are differentially affected by the levels of other independent variables

Interpolated task a task used to fill the interval between the study of material and its recall in memory experiments

Interval of uncertainty the difference between the higher and lower thresholds in a calculation of the difference threshold

Interval scale a measurement scale that possess the properties of difference, magnitude, and equal intervals

Intervening variables abstract concepts that link inde pendent variables to dependent variables

Introduction the portion of a technical paper that specifies the problem to be studied and tells why it is important

Introspection a method used by structural psychologists to look within and examine their own consciousness

Just-noticeable difference (JND) coined by Fechner, the internal sensation evoked by one difference threshold and the basic unit defining an internal psychological scale

Labeled magnitude scale a ratio psychophysical scale that pairs numbers bounded by 0 and 100 with verbal labels that range from anothing" to "the strongest sensation imaginable"

Landolt C a way of measuring visual acuity, in which the gap of the C is varied and the observer determines when the gap is no longer visible

Large-n design an experiment involving a large number of subjects; usually analyzed by complex statistical procedures

Latency amount of time needed to complete a task

Law of effect the principle that reinforcement of a response leads to the response being more likely to occur in the future

Level the value of an independent variable

Level of confidence see Significance level

Levels of processing a framework for studying memory

that predicts that semantic or "deeper" encoding tasks will produce better memory for the material than perceptual or “shallow" encoding tasks

Longitudinal design the repeated testing of one group of people as they age (contrast with Cross-sectional design)

Long-term memory retrieval of memories that have disappeared from consciousness after their initial perception

Method of limits a psychophysical procedure for deter mining thresholds in which ascending and descending sequences of stimuli are presented

Method of tenacity a method of fixing belief involving a steadfast adherence to a particular belief, regardless of contrary arguments or data (contrast with Empirical)

Mixed design an experimental design containing both within- and between-subject independent variables

Modality effects different effects on retention often produced by visual and auditory presentation; auditory presentation usually produces better memory for the last few items in a series than does visual presentation

Monitoring task a form of dichotic listening in which observers are not required to verbalize a message as it is presented

Monotonic relationship the relationship between two variables in which an increase on one variable is accompanied by a consistent increase or decrease on the other variable

Monozygotic developing from the same fertilized egg

Mozart effect the finding that listening to Mozart compositions leads to increased performance on visual-spatial tests

Multifactor analysis of variance an analysis of variance of experiments that have more than one independent variable

Multiple intelligences the theory that intelligence is actually composed of seven different intelligences

Multiple-baseline design a small-n design in which different behaviors (or different people) receive baseline periods of varying lengths prior to the introduction of the independent variable

N100 a negative component of the event-related potential occurring about 100 ms after stimulus onset that indexes basic analysis of the stimulus

N400 a negative component of the event-related potential occurring about 400 ms after stimulus onset that is supposed to index surprise or incongruity

Nativistic theory of perception the theory that genetic "wired-in" mechanisms account for perceptual capabilities (see Empirical theory of perception)

Naturalistic observation the description of naturally occurring events without intervention on the part of the investigator

Nature theory the theory that genetic differences underlie individual differences

Negative afterimage is opposite in brightness and complementary in color to the visual stimulus (contrast with Positive afterimage)

Negative contrast effect a decrease in behavior whom reinforcement magnitude is decreased such that the behavior is less than when it has always been by a small magnitude

Negative correlation an observed relationship bew two variables in which a change in one variable is companied by a change in the opposite direction in the second variable

Negative reinforcing stimulus a stimulus that, wih.comremoved, increases the likelihood of the response fromremoved it

Noise a complex sound composed of many different Frequencies

Nominal scale a measurement scale that possesses property of difference

Nondirectional test see Two-tailed test

Nonparametric tests statistical tests that do not maat:

assumptions about the underlying population discuti tion; usually used when the data are not at the

interval/ratio level

Nonsense syllables for example, consonant-vowell consonant trigams (e.g., YUN) that do not have ing in the English language

Normal curve a distribution producing a symmetric hillshaped curve

Normal line of regard the line of vision that individuals normally adopt when engaged in a particular task foren example, driving an automobile)

Null contingency a reinforcement contingency in what there is no relation between a response and reinfancimus stimuli

Null hypothesis the prediction that the independent, velable will have no effect on the dependent variabile

Null result an experimental outcome in which the dopo dent variable is not influenced by the independent variable

Nurture view the belief that experiential factors influence how an organism develops

Obedience conformity to a direct order or command

Objective measures dependent variables such as reactive time that can be easily verified (contrast with Subs tive measures)

Objective threshold according to Cheesman and Merikle, the stimulus energy level that elicits truly random behavior (compare with Subjective thresh

Observation the careful watching and recording of a phenomenon

One-tailed test a test that places the rejection area at end of a distribution

Personal equation differences in reaction time first noticed by eighteenth-century astronomers

Personal space the physical area surrounding a person within which a person will experience discomfort if another person enters; measured by noting the person's defensive reactions

Phenomenological experience a person's awareness of his or her own state of mind

Pheromones odors given off by a person (or animal) that are related to sexual receptivity

Phonemic (phonological) the sound level of the perceptual analysis of words

Photopic vision vision controlled by the cones in the retina, typically in day viewing conditions

Placebo effect the improvement often shown in drug effectiveness studies when patients believe they have received a drug, although they have actually received an inert substance

Plagiarism the uncredited use of another person's words, data, or ideas

Point biserial r a correlation coefficient often used in two-group experiments to determine the magnitude of effect of the independent variable

Point of subjective equality the mean of the upper and lower threshold in a determination of the difference threshold

Population the total set of potential observations (from which a sample can be drawn)

Positive afterimage is similar in brightness and color to the original visual stimulus Positive contrast effect rarely found improvements in behavior when reinforcement magnitude is increased and the behavior is compared with that which has always been followed by a large magnitude of reinforcement

Positive correlation an observed relationship between two variables in which a change in one variable is accompanied by a change in the same direction in the second variable Positive reinforcing stimulus a stimulus that, when pre-sented, increases the likelihood of the response that produced it

Power (of a statistical test) the probability that a test will reject the null hypothesis when it is in fact false

Practice effect a carryover effect in an experiment such that behavior improves during the experiment because of practice and not because of the independent variable

Precision the quality of being exactly specified

Prediction statement of a future outcome before data are collected

Operant conditioning see Instrumental conditioning

Operational definition a definition of a concept in termsof the operations that must be performed to demon strate the concept

Operationism the position that concepts are defined by the operations used to measure and produce them, but ignores the fact that at least two sets of observations are needed for a complete definition

Ordinal scale a measurement scale the possess the properties of difference and magnitude

Ordinate the vertical axis (or Y-axis) in a graph

Organization structures of existing knowledge; one char acteristic of a good theory

P200 and P300 positive components of the event-relatedpotential occurring 200 and 300 ms, respectively, afterstimulus onset that index attention to the stimulus

Paired-associate recall a memory task in which a pair of words is given (for example, mongoose-elephant); later the first word is provided and the task is to recall the second word

Parallel forms two alternative forms of a test Parallel-

distributed processing (PDP) uses computer models to simulate cognition; model consists of a network of simple processing units that fall in distinct layers, with all of the processing units within a layer con nected to all of the processing units in adjacent layers

Parameters statistics that describe characteristics of populations

Parametric tests statistical tests that assume a normal distribution of scores and interval or ratio level of measurement

Parsimony using the smallest number of statements in a theory Partial reinforcement a schedule of reinforcement in which a reward follows a desired response only on some occasions

Partial reinforcement extinction effect (PREE) the greater resistance to extinction exhibited for responses learned under partial rather than continuous schedules of reinforcement

Participant observation an observation technique in which the observer participates with those being observed; for example, living with gorillas in the wild

Pearson r a parametric measure of correlation between two variables

Perception the awareness process typically viewed as more complex than sensation and usually involving an interpretation of sensation

Perceptual defense an unwillingness to report perceive ing unpleasant material, in contrast to an inability to perceive such material

Predictive validity the ability of a test score to predict behavior on some criterion measure; also called criterion validity (for example, if a law school entrance exam correctly predicts success as a lawyer)

Preparation the initial stage in problem solving in which an individual becomes immersed in thinking about the facts and considerations surrounding a given problem

Primacy effect the better retention of information occur ring at the beginning of a list, relative to information in the middle

Primary task the most important task in a set of concur rent tasks

Prime prior experience that may not facilitate (prime) Behavior

Prime sight the after images perceived by patient D.B. to visual stimuli for which he claimed to be blind

Priming facilitation of a response because of a previous experience; e.g., prior presentation of a word speeds later reading of the same word

Proactive interference forgetting that is produced by prior learning

Problem a vague question that is too general to be tested without additional refinement; see Hypothesis

Procedure a subsection of the method section of a technical paper that explains what happened to the participants/subjects and contains enough information that someone else could replicate the study (repeat the study exactly as it was originally conducted)

Protection from harm ethical researchers' commitment to protect their subjects from any harm

Pseudoconditioning a temporary elevation in the amplitude of the conditioned response that is not due to association between the conditioned stimulus and the unconditioned stimulus

Psychological refractory period in choice reactions with a delay between stimuli, the period in which reaction time of the second response is delayed

Psychophysical methods such as the method of limits that were started by Fechner and include modern methods such as signal detection

Psychoneuroimmunology an interdisciplinary field that examines the relationships among behavior, neural, endocrine, and immune processes

Psychophysics the study of how changes in physical stimuli are translated into psychological experience

Psychophysiology using physical measures to infer psychological processes (contrast with Psychophysics)

Punishment a stimulus that, when presented, decreases the likelihood of the action that produced it

Pure insertion the assumption that a mental module cambe added or deleted without altering the processing duration of other modules

Qualitative variation manipulation of an independent variable along a dimension that is not easily quantific such as providing people different types of instruction in an experiment

Quality-adjusted life year a statistically adjusted estimate of the benefit of new technology hogy

Quantitative variation manipulation of an independen variable along a measurable dimension, such as the number of food pellets given a rat as reinforcement

Quasi-experiment an experiment in which the indepen dent variable occurs naturally and is not under directe control of the experimenter

Quasi-experimental designs an experiment in which the independent variable occurs naturally and is not under direct control of the experimenter

Quasi-independent variable an independent variable that is selected or measured rather than manipulated directly

Random assignment a procedure that ensures each subjects has an equal chance of being assigned to experimental treatments

Random sample an unbiased sample in which each mit of the population has an equal chance of being selected

Random selection a procedure that ensures each member of a population has an equal chance of being a participant in an experiment

Random-groups design the random assignment of subjects to conditions in a between-subjects design Randomization a statistical sample procedure where every element has an equal probability of being selected

Ratio scale a measurement scale that possesses the properties of difference magnitude, equal intervals, and a meaningful zero point

Reaction-time experiment an experiment in which time is the dependent measure; usually speeded reactions are measured in these experiments

Reactivity a participant's unplanned reaction to the researcher or research setting that may confound the results of the research

Recall a measure of retention in which reproduction of material is required

Receiver-operating characteristic (ROC) see ROC Function

Recency effect the better retention of information at the end of a list, relative to information in the middle

Results a section of a technical paper that describes that data obtained in the research and provides statistical analyses conducted on the data

Retrieval cue information presented at the time of a memory test to aid recall

Retroactive interference the forgetting of material produced by learning of subsequent material

Reversal (ABA) design a small-n design in which a subject's behavior is measured under a baseline (A) condition, then an

experimental treatment is applied during the B phase and any changes in behavior are observed; finally, the original baseline (A) conditions are reinstituted to ensure that the experimental treatment was responsible for any observed change during the B phase

Robust tests powerful statistical tests

ROC function (receiver operating characteristic) a plot graphing hits against false alarms

Running head the heading that appears at the top of the page of a published article

Sample observations selected from a population

Sample generalization a representativeness issue concerning whether the sample used in an experiment is representative of other samples

Sampling in statistics the selection of subjects or items for experiments

Savings method Memory can be measured as a reduction (savings) in the number of trials needed to relearn prviously studied material

Savings score the difference between the number of trials in original learning (OL) of a list and its relearning (RL) divided by the number of trials in original learning, with this ratio multiplied by 100

Scale-attenuation effects difficulties in interpreting results when performance on the dependent variable is either nearly perfect (a ceiling effect) or nearly lacking altogether (a floor effect)

Scientific method the formulation and testing of hypotheses by systematic observation and experiment; the formulation and testing of theories by induction and deduction

Scotoma a region of blindness in the visual field caused by a physical defect in the visual system

Scotopic vision night vision that is controlled by the rods in the retina

Secondary task an extra task on which performance is an index of attention

Self-correcting a procedure that automatically detects and repairs errors

Semantic meaningful analysis of words

Recognition a measure of retention in which familiarity of information is judged

References found at the end of a technical paper; only articles cited in the text are included in the reference section

Regression artifacts an artifact in the measurement of change on a variable when groups of subjects who scored at the extremes on the variable are tested again (see Regression to the mean)

Regression to the mean the tendency for extreme measures on some variable to be closer to the group mean when remeasured, owing to unreliability of measurement

Related measures design one in which several measures are taken either on the same subject or on subjects matched on important dimensions

Relational research research that tries to determine how two or more variables are related

Reliability the repeatability of an experimental result; an estimation from inferential statistics of the likelihood that a finding is repeatable; also, the consistency of a test or measuring instrument determined by computing a correlation between scores obtained by subjects taking the test twice (test-retest reliability), by their taking two different parallel forms of the test, or by scores obtained on each half of the test (split-half reliability)

Reliability of results refers to the repeatability of an experimental result; inferential statistics provide an estimate of how likely it is that a finding is repeatable; also refers to the consistency of a test or measuring instrument determined by computing a correlation between

scores obtained by participants taking the test twice (test-retest reliability) or taking two different parallel forms of the test (parallel test reliability), or by examin ing scores obtained on two halves of the test (split-half reliability)

Removing harmful consequences ethical researchers' attempts to remove any harmful consequences that their subjects may have incurred

Replication the repetition of an earlier experiment to duplicate (and perhaps extend) its findings (also see Systematic replication)

Representativeness an issue concerning whether the variables in an experiment allow extensions to more general situations Reproducibility see Reliability Respondent conditioning see

Classical conditioning Restriction of range when the sample does not represent the full range of possible values for a given variable or factor; it reduces the degree of an observed correlation or relationship between two variables

Sensation the basic and elemental intake of stimulus Information

Separate modifiability a form of independence that occurs when one mental module can be changed without modifying another module

Serial position the order in which information appears when studied for a later memory test Serial position curve the graphical

representation of retention as a function of the input position of the information; usually, memory is better for the first items (primacy effect) and the last items (recency effect) than for those in the middle; this typical finding is referred to as the serial position effect

Serial recall a memory test in which subjects try to recall material in the exact order in which it was presented; recalling a telephone number exemplifies a serial recall task

Set the effect of expectancy of cognition; for example, if the people solve problems in one particular way, they will often approach new problems in the same set way, even when the original strategy is no longer effective; also called Einstellung, from the original German experiment

Shape constancy an objects shape appears constant despite changes in retinal sensations

Shaping a technique for conditioning a desired response by rewarding successive approximations to that response

Short-term memory recovery of information shortly after it has been perceived and before it has left conscious awareness

Sign test a nonparametric test used to determine differences between two sets of scores obtained in a related measures design

Significance level the probability that an experimental finding is due to chance, or random fluctuation, operating in the data

Simple (one-factor) analysis an analysis of variance for an experiment that has one independent variable with more than two levels

Simple reaction see Donders A reaction

Simulating control participants experimental participants who are told to simulate the behavior of how they expect others will act (e.g., people told to simulate hyponosis)

Simultaneous contrast changes in instrumental behavior that result from the subject's experiencing two or more contrasting magnitudes of reinforcement

Single-blind experiment an experiment in which subjects were not aware of their assigned treatment conditions

Skewed distribution a nonsymmetrical distribution

Small-n design research design using a small number subjects

Social facilitation the increase in individual effort pasduced by the presence of other people and when individual performance is measured

Social loafing the decrease in individual effort that some times occurs when other people are present and whom group performance is measured

Social norms society's standards for behavior

Social pathology the breakdown of ordinary social inter action often observed in animals subjected to extreme crowding

Social psychology the psychological study of how sacety affects the individual

Speciesism a term used to describe the view that animal life is qualitatively different from human life

Speed-accuracy trade-off in reaction time experiments the ability of the responder to substitute changes in the percentage of correct responses for changes in speed of responding

Split-half reliability the determination of reliability amtest by dividing the test items into two arbitrary groups and correlating the scores obtained on the two hathus of the test

Split-litter technique the random assignment of animals from the same litter to different groups; a type of matched groups design **Stability** when a dependent measure yields the same score in repeated experiments given the same subject same levels of the independent variable, and so forth

Staircase method a newer method of limits procedure that concentrates stimulus presentations around the threshold

Standard deviation a descriptive measure of dispersion square root of the sum of squared deviations of each score from the mean, divided by the number of scores

Standard error of the mean the standard deviation of the distribution of sample means

Statistical prediction rules based on predictor variables and diagnostic information that can be consulted

during detection decisions

Statistical reliability rejecting the null hypothesis on the basis of a statistical test that yields an alpha level of les than .05

Statistics numbers used for description or inference

Stevens' law the principle, stated by Stevens, that sense tion grows as a power of stimulus intensity: V = 5

Stimulus error an error of introspection in which the ci server reported seeing an object (e.g., a table) rather

t test a parametric statistical test for determining the significance of the difference between two groups, or between two treatments

Tables a nongraphical way of summarizing data in a technical paper; summary values of the dependent variable are presented under headings describing the levels of the independent variable

Target the test item in a priming task; of interest is whether prior experience facilitates (primes) a decision about the target

Tachistoscope a device that allows very rapid presentation of visual stimuli

Testability ability of a theory to be examined locally and empirically

Test-retest reliability the practice of giving the same test twice in succession over a short interval to see if the scores are stable or reliable; generally expressed as a correlation between scores on the tests

Tetrahedral model of memory Jenkins's four-part analy sis of memory experiments into type of subjects, orienting tasks, type of test, and type of materials

Theory a set of related statements that explain a variety of occurrences

Theory of signal detection posits that sensory impressions and decision processes together determine the detection of signals

Thought cognition

Threshold see Absolute threshold and Difference threshold

Time-lag design a quasi-experimental design similar to the cross-sectional design in which people of different ages are compared at different times so that their age at the time of testing is the same

Title provides an idea of the contents of an article or technical paper and usually states only the dependent and independent variables

Tonal agnosia an inability to appreciate melody in music and speech; usually associated with damage to the righthemisphere of the brain

Top-down processing cognitive processes that begin with knowledge of concepts; contrast with Bottom-up processing

Transfer appropriate processing the principle that whether encoding activities promote memory will depend on the type of test used to assess memory performance

Trials to criterion the number of study and test trials needed to recall material perfectly

True zero the absence of a physical property (zero weight in grams) as opposed to an arbitrary zero, such as zero degrees centigrade than the elements that made up the experience (e.g.,color, pattern)

Stimulus onset asynchrony the time interval between

two stimuli in a choice-reaction time task

Stress a psychological state of an organism when there is a disparity between its ability to cope with demands of the environment and the level of such demands

Strong AI the view that machines can possess intelligence of the sort possessed by humans

Strong inference Platt's view that scientific progress comes about through a series of tests of alternative theoretical outcomes

Stroop effect difficulty in naming the color of an object when the color conflicts with the name of the object (when the word blue is printed in red ink)

Structural consistency (problem solving) when mapped elements in the source and target problems play similar roles

Structuralism the school of psychology, originated byWundt, in which the primary task of psychology was considered to be the analysis of the structure of conscious experience through introspection

Subject (participant) A person participating in the research

Subject representativeness the determination of generality of results across different subject populations

Subject variable a characteristic of people that can be measured or described but cannot be varied experimentally (for example, height, weight, sex, and IQ

Subjective measures introspective reports given on rating scales that usually cannot be objectively verified

Subjective report verbal report of a person's perceived mental state

Subjective threshold the stimulus energy level that yields claims of unawareness but behavior indicating perception of the event (see Objective threshold)

Subtractive method a technique originated by Donders to estimate the amount of time required for various mental operations by subtracting one component from another

Survey research the technique of obtaining a limited amount of information from a large number of people, usually through random sampling Synergism another term for interaction in which the joint effects of two variables combine in a way that is not a simple function of their individual effects

Systematic replication the repetition of an experiment while varying numerous factors considered to be irrelevant to the phenomenon to see if it will survive these changes

Truncated range a problem in interpreting low correlations; the amount of dispersion (or range) of scores on one variable may be small, thus leading to the low correlation found

Turing test the test devised by Turing in which a machine gives answers indistinguishable from those of humans; supposedly supports the strong AI position

Two-tailed test a test that places the rejection area at both ends of a distribution

Type I error the probability that the null hypothesis is re -jected when it is in fact true; equals the significance level

Type II error the failure to reject the null hypothesis when it is in fact false

Unconditioned response (UCR) a response made to an unconditioned stimulus

Unconditioned stimulus (UCS) a stimulus that can elicit a response in the absence of conditioning

Unconscious inference Helmholtz's view that perception involves inferences about sensations and that the observer is unaware of making the inferences

Unobtrusive measures measures taken from the results of behavior, not from the behavior itself (see Nonreactive)

Unobtrusive observations see Nonreactive

Validity whether a procedure or observation is sound or genuine

Variable something that can be measured or manipulated

Variable representativeness the determination of gener ality of results across different manipulations of an independent variable or different dependent variables

Variance a measure of dispersion; the standard deviation squared

Verbal report a subject's description of his or her phenomenological experience, often very difficult to verify

Verification the final stage in problem solving that in volves careful checking of a potential solution

Visual mask used in computer tasks to block visu afterimages

Wason card selection task a reasoning task in which subjects often choose options that confirm (ra than disconfirm their hypotheses

Weak Al the view that computer programs can be test theories of human intelligence

Weber's law a formula developed by Weber that SSS that the smallest perceptible difference (the just noticeable difference) between two stimuli (for example, weights) can be stated as a ratio between stimuli that is independent of their magnitude, AI/I = K

What-if experiment an experiment performed to see what might happen rather than to test a specific hypothesis

Wilcoxon signed-ranks test a nonparametric teste to determine differences between two sets of som obtained in a related measures design

Within-group variance a measure of the dispersiorm among subjects in the same group in an experime Within-subjects design an experimental design in weach subject is tested under more than one level of independent variable

Word-fragment completion task an implicit meman test in which the subject has to fill in the missing letters of a fragmented word

Workload the amount of attention-demanding effort imposed on a person

x^2 test for independence a statistical test often used to determine whether the data in a contingency tabilem statistically significant

Yes/no recognition test a memory test on which suit jects decide whether each item was studied or not saying yes it was or no it was not)

z score a standard score in which the difference betwee an individual score and the mean is expressed in ums of st

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Savings method Memory can be measured as a reduction (savings) in the number of trials needed to relearn previously studied material

Savings score the difference between the number of trials in original learning (OL) of a list and its relearning (RL) divided by the number of trials in original learn ing, with this ratio multiplied by 100

Scale-attenuation effects difficulties in interpreting results when performance on the dependent variable is either nearly perfect (a ceiling effect) or nearly lacking altogether (a floor effect) cientific method the formulation and testing of hypotheses by systematic observation and experiment; the formulation and testing of theories by induction and deduction cotoma a region of blindness in the visual field caused by a physical defect in the visual system cotopic vision night vision that is controlled by the rods in the retina econdary task an extra task on which performance is an index of attention

1f-correcting a procedure that automatically detects and repairs errors mantic meaningful analysis of words

Recognition a measure of retention in which familiarity **of information is judged**

References found at the end of a technical paper; only articles cited in the text are included in the reference section

Regression artifacts an artifact in the measurement of change on a variable when groups of subjects who scored at the extremes on the

variable are tested again (see Regression to the mean)

Regression to the mean the tendency for extreme measures on some variable to be closer to the group mean when remeasured, owing to unreliability of measurement

Related measures design one in which several measures are taken either on the same subject or on subjects matched on important dimensions

Relational research research that tries to determine how two or more variables are related

Reliability the repeatability of an experimental result; an estimation from inferential statistics of the likelihood that a finding is repeatable; also, the consistency of a test or measuring instrument determined by computing a correlation between scores obtained by subjects taking the test twice (test-retest reliability), by their taking two different parallel forms of the test, or by scores obtained on each half of the test (split-half

reliability)

Reliability of results refers to the repeatability of an experimental result; inferential statistics provide an estimate of how likely it is that a finding is repeatable; also refers to the consistency of a test or measuring instrument determined by computing a correlation between scores obtained by participants taking the test twice (test-retest

reliability) or taking two different parallel forms of the test (parallel test reliability), or by examin ing scores obtained on two halves of the test (split-half reliability)

Removing harmful consequences ethical researchers' attempts to remove any harmful consequences that their subjects may have incurred

Replication the repetition of an earlier experiment to duplicate (and perhaps extend) its findings (also see Systematic replication)

Representativeness an issue concerning whether the variables in an experiment allow extensions to more general situations

Reproducibility see Reliability

Respondent conditioning see Classical conditioning

Restriction of range when the sample does not represent the full range of possible values for a given variable or factor; it reduces the degree of an observed correlation or relationship between two variables

Sensation the basic and elemental intake of stimulus

Information

Separate modifiability a form of independence that occurs when one mental module can be changed without modifying another module

Serial position the order in which information appears when studied for a later memory test

Serial position curve the graphical representation of retention as a function of the input position of the information; usually, memory is better for the first items (primacy effect) and the last items (recency effect) than for those in the middle; this typical finding is referred to as the serial position effect

Serial recall a memory test in which subjects try to recall material in the exact order in which it was presented; recalling a telephone number exemplifies a serial recall task

Set the effect of expectancy of cognition; for example, if the people solve problems in one particular way, they will often approach new problems in the same set way, even when the original strategy is no longer effective; also called Einstellung, from the original German experiment

Shape constancy an object's shape appears constant despite changes in retinal sensations

Shaping a technique for conditioning a desired response by rewarding successive approximations to that response

Short-term memory recovery of information shortly after it has been perceived and before it has left conscious awareness

Sign test a nonparametric test used to determine differ ences

between two sets of scores obtained in a related measures design

Significance level the probability that an experimental

finding is due to chance, or random fluctuation ، operating in the data

Simple (one-factor) analysis an analysis of variance for an experiment that has one independent variable with more than two levels

Simple reaction see Donders A reaction

Simulating control participants experimental participants who are told to simulate the behavior of how they expect others will act (e.g., people told to simulate hyponosis)(

Simultaneous contrast changes in instrumental behavior that result from the subject's experiencing two or more contrasting magnitudes of reinforcement

Single-blind experiment an experiment in which subjects were not aware of their assigned treatment conditions

Skewed distribution a nonsymmetrical distribution

Small-n design research design using a small number Subjects

Social facilitation the increase in individual effort pmduced by the presence of other people and when individual performance is measured

Social loafing the decrease in individual effort that some times occurs when other people are present and the group performance is measured

Social norms society's standards for behavior

Social pathology the breakdown of ordinary social imaction often observed in animals subjected to exte crowding

Social psychology the psychological study of how sodety affects the individual

Speciesism a term used to describe the view that animi life is qualitatively different from human life

Speed-accuracy trade-off in reaction time experiments the ability of the responder to substitute changes in the percentage of correct responses for changes in speed of responding

Split-half reliability the determination of reliability of test by dividing the test items into two arbitrary groups and correlating the scores obtained on the two halves of the test

Split-litter technique the random assignment of animals from the same litter to different groups; a type of matched groups design

Stability when a dependent measure yields the same score in repeated experiments given the same subject same levels of the independent variable, and so forth

Staircase method a newer method of limits procedure that concentrates stimulus presentations around the threshold

Standard deviation a descriptive measure of dispersion square root of the sum of squared deviations of each score from the mean, divided by the number of scores

Standard error of the mean the standard deviation of the distribution of sample means

Statistical prediction rules based on predictor variables and diagnostic information that can be consulted during detection decisions

Statistical reliability rejecting the null hypothesis on the basis of a statistical test that yields an alpha level of than .05

Statistics numbers used for description or inference

Stevens' law the principle, stated by Stevens, that sensetion grows as a power of stimulus intensity: $\psi = S^n$

Stimulus error an error of introspection in which the server reported seeing an object (e.g., a table) rather

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THE SCIENTIFIC STUDY

OF PEOPLE

THE DATA OF PERSONALITY PSYCHOLOGY

GOALS OF RESEARCH: RELIABILITY,

VALIDITY, ETHICAL BEHAVIOR

Reliability

Validity

The Ethics of Research and Public Policy

THREE GENERAL APPROACHES TO RESEARCH

Case Studies and Clinical Research

Reactions to Battle Stress

Laboratory Studies and Experimental Research

Learned Helplessness

Personality Questionnaires and Correlational. Research

Internal-External Locus of Control Causal Attributions: Explanatory style Attributional Style (ASQ)

Explanatory style

EVALUATING ALTERNATIVE

RESEARCH APPROACHES

Case Studies and Clinical Research: Strengths and Limitations

The Use of Verbal Reports

Laboratory, Experimental

Strengths and Limitations

Correlational Researchand Questionnaires: Strengths and Limitaions

Summary of Strength and Limitations

PERSONALITY THEORY AND PERSONALITY RESEARCH

PERSONALITY ASSESSMENT AND THE CASE OF JIM

MAJOR CONCEPTS

Review

chapter focus

Three students in a course on personality work together on a research project on the effects of achievement motivation on academic performance. At their first meeting, they realize that they have drastically differing opinions about how to proceed. Alex is convinced that the best approach is to follow one student over the course of the semester, carefully recording all relevant information (grades, changes in motivation, feelings about courses, etc.) to obtain a complete and in-depth picture. Sarah, however, thinks little of Alexs idea because his conclusions would apply only to that one person. Her approach would be to develop a set of general questions and collect written responses from as many students as possible. Yet, Michael thinks that the best way to understand things is to do experiments. His approach would be to make some people feel motivated and some people unmotivated and then measure how well they perform on a test.

Case studies, questionnaire research, and laboratory

experiments are the three major methodological approaches used in personality research. This chapter first considers four types of information or data that personality researchers collect about people. Then we consider the three major approaches to research, and illustrate their relative strengths and limitations by exploring research on stress, helplessness, and control. Theories of personality tend to differ in their preferred approaches to research and methods for assessing individuals. That is, there is a link between our theories and how we go about studying people. Finally, attention is given to the personal and social forces that influence research, from defining a problem for study to the development of public social policy.

QUESTIONS TO BE ADDRESSED IN THIS CHAPTER

1. What kind of information is it important to obtain to conduct studies of people?
2. What do we mean when we say that our observations must be reliable and valid?

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3. How should we go about studying people? Should we conduct research in the laboratory or in the natural environment? Through the use of self-reports or reports of others? Through studying many subjects or a single individual?
4. To what extent does it make a difference if we study a person using one or another type of data? One or another

approach to research? One or another theoretical perspective? In other words, to what extent will the person "look the same" when studied from different vantage points or perspectives?

In Chapter 1 we suggested that all people are personality psychologists. What makes the theories of scientific personality psychologists different is that their theories are more explicit and more open to systematic examination than those of ordinary people. Similarly, we are all researchers on personality in that we notice differences among people and observe consistent patterns of behavior within individuals. However, the "research" of the ordinary person still differs from that of the personality scientist. As scientists we make our ideas explicit, and we are systematic in our observations. We follow established procedures to ensure that our observations are as accurate as possible and can be duplicated by others. And, as scientists, we follow established procedures to determine whether our observations are reliable and stable, rather than occurring by chance or error. In making our research public through publications, we offer others the opportunity to replicate our findings, check our data, and reexamine our conclusions. Rarely in our daily lives do we do this in any kind of systematic way.

Research involves the systematic study of relationships among events. Generally, theory directs our attention to specific problems for investigation, and research tells us how well our theory is doing and how it might be developed further.

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Thus, theory and research are closely linked to one another. Theory without research is mere speculation, and unending research without theory is meaningless fact-gathering.

THE DATA OF PERSONALITY PSYCHOLOGY

What are the data of interest to personality psychologists? What kind of information is it important to obtain if one is to conduct systematic studies of people? Personality psychologists have defined four categories of information, or data, that are used in research (Block, 1993). These are life record data (L-data), observer data (0-data), test data (T-data), and self-report data (S-data). The four kinds of data can be recalled through the acronym LOTS, as when personality psychologists gather lots of data about people.

L-data consist of information concerning the person that can be obtained from their life history or life record. For example, if one is interested in the relation between intelligence and school performance, one can make use of records of school grades obtained from school records. Or, if interested in the relation between personality and criminality, one can make use of court records of arrests and convictions as a criterion for criminality. 0-data consist of information provided by knowledgeable observers such as parents, friends, or teachers. Generally such data are provided in the form of ratings on personality characteristics. Thus,

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for example, friends might be asked to rate an individual on personality characteristics such as friendliness, extraversion, or conscientiousness. In some research observers are trained to observe individuals in their daily lives and to make personality ratings based on their observations.

For example, camp counselors can be trained to observe the behavior of campers. Personality-relevant data can then be obtained in the form of observations of specific behaviors (e.g., verbal aggression, physical aggression, compliance) or in the form of ratings on more general personality characteristics (e.g., self-confidence, emotional health, social skills) (Shoda, Mischel, & Wright, 1994; Sroufe, Carlson, & Shulman, 1993). As is clear from these examples, 0-data can consist of observations of very specific pieces of behavior or of more general ratings based on observations of behavior. In addition, data on any individual can be obtained from one observer or from multiple observers (e.g., one friend or many friends, one teacher or many teachers). In the latter case, one can check for agreement or reliability among observers.

T-data consist of information obtained from experimental procedures or standardized tests. For example, ability to tolerate delay of gratification might be measured by determining how long a child will work at a task to obtain a larger reward rather than a smaller reward that is immediately available (Mischel, 1990). Performance on a standardized test such as an intelligence test would also be illustrative of T-data. Finally, S-data consist of information

provided by the subject himself or herself. Typically such data are in the form of

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responses to questionnaires. In these cases the person is taking the role of observer and making ratings relevant to the self (e.g., "I am a conscientious person"). Personality questionnaires can be relevant to single personality characteristics (e.g., Optimism) or can attempt to cover the entire domain of personality.

Having considered the four categories of data, we now can ask about the extent to which measures obtained from the different types of data agree with one another. If a person rates herself as high on conscientiousness, will others (e.g., friends, teachers) rate her similarly? If an individual scores high on a questionnaire measure of depression, will ratings given by a professional interviewer lead to a similar score? If an individual rates himself as high on extraversion, will he score high on that trait in a laboratory-designed situation to measure that trait (e.g., participation in a group discussion)? We know that scores obtained from questionnaires often are discrepant from scores obtained from laboratory procedures. Questionnaires tend to involve broad judgments over a great variety of situations (e.g., "I generally am pretty even-tempered") whereas experimental procedures measure personality characteristics in a very specific context. Thus, T-data and S-data tend to be different.

But what of the relation between self-report ratings and ratings

by others-S-data and 0-data? Here personality psychologists come to differing conclusions. While some personality psychologists suggest that self-ratings on traits are largely supported by trait ratings provided by friends and spouses, others question this conclusion and suggest that self-ratings and ratings provided by others can lead to different conclusions (Coyne, 1994;John & Robins, 1994a; Kenny et al., 1994; McCrae & Costa, 1990; Pervin, 1996).

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Especially when the attribute being rated is highly evaluative (e.g., stupid, warmhearted), self-perception biases enter the rating process, thuslowering agreement between self and observer ratings (John & Robins, 1993,1994a). Moreover, some personality characteristics are more observable and easier to judge than others (e.g., sociability vs. neuroticism), leading to greater agreement between self and observer ratings as well as to greater agreement among ratings obtained from different observers of the same person (Funder, 1989, 1993, 1995; John & Robins, 1993). In addition, some individuals appear to be easier to read or more "judgable" (Colvin, 1993), Whereas some "open" personalities are easy to read and can be judged with accuracy and agreement by friends, other individuals are closed books for whom people give widely differing personality ratings. In other words, "judgability" may itself be a personality characteristic. In sum, we cannot say with certainty that personality scores obtained from different data sources will always show high

agreement with one another.

If personality measures can differ from one another, can we say that one measure is better, more accurate, more valid than another? Once more, we have a complex question to which it is difficult to give a simple, conclusive answer. Each form of data has its advantages and disadvantages, and some personality psychologists prefer one type of data whereas others prefer a different type of data. For example, some psychologists reject many forms of S-data and argue that people not only consciously lie but often distort things for unconscious reasons. On the other hand, other psychologists suggest that if you want to know something about a person, the best thing to do is to ask them (Allport, 1961; G. A. Kelly, 1955).

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Whereas some psychologists suggest that the best measure of an individuals personality is ratings by others who know the person, others suggest that often different people rate the same person in quite different ways (Hofstee, 1994; John & Robins, 1994a; Kenny et al., 1994). Whereas some psychologists feel that the "true coin" of personality as a science is objective measures of behavior under defined experimental conditions, others question the relevance of such data to the behavior of an individual in the natural environment. In sum, personality psychologists differ in their evaluations of the merits of the various kinds of data.

Despite these differences, probably almost all personality

psychologists would be open to the potential utility of each of the four kinds of data for different purposes. For example, if one is interested in the world of subjective experience—how the person experiences the self and others-then obviously it is necessary to use self-report measures. On the other hand, if one is interested in actual performance on tasks, then obviously it is better to use objective test data. Ideally, perhaps, it would be best in our research to obtain various types of data on the same subjects. One thereby could attempt a more comprehensive picture of the person and attempt to understand why particular measures did or did not show agreement with one another. Indeed, in this text we will have the opportunity to consider relations among various types of data for one person. Our sense is that this is a worthy endeavor that is practiced all too rarely in the field. The reason for this is that studies that involve the intensive study of individuals and make use of varied forms of data are extremely time-consuming. In addition, they rarely provide for the testing of specific hypotheses or straightforward answers to theoretical questions. Instead, they tend to be more exploratory in nature, although potentially of great value in that regard. Finally,

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as noted, they violate the general tendency for personality psychologists to have a preference for one or another kind of data.

In relation to trying to understand people, we can ask the following: If you wanted to know about someone's personality, what kind of information would you seek to obtain about them? Would

you want to ask them questions about themselves (S-data)? Keep track of your own observations and those of others (0-data)? Check specific records (L-data)? Subject them to objective experimental procedures or tests (T-data)? Rarely do we in our daily lives have the option of obtaining such varied information about a person, so we make do with one or another kind of information, typically what people tell us about themselves and the observations we and others make about them. But, even here often we are confronted with discrepancies among the sources of information— what the people tell us about themselves doesn't square with what we observe about them or what others tell us about them. What, then, are we to do? How are we to make sense out of the differing representations of the same person? Is one or another source of data to be most trusted or can we otherwise account for the differences?

From consideration of such questions, hopefully it can be seen just how complex is the task of personality psychologists. We have become very good at developing personality measures and have become very sophisticated concerning research methods. As we shall see in the following section, we have developed criteria for evaluating the scientific merit of differing measures. Clearly it is not all a matter of personal preference. Yet, we remain confronted with the problem that personality measures obtained from different sources of data may not agree with one another and that there is no overall answer to the question of which is the best, most accurate, most valid measure or source of data.

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If we are to appreciate people in their complexity, and appreciate the complexity of personality research, then we must be prepared to face challenging questions and accept less than conclusive answers.

GOALS OF RESEARCH: RELIABILITY, VALIDITY, ETHICAL BEHAVIOR

All research efforts share certain common goals. In research, we are seeking systematic observations that can be replicated and that relate to the concept of interest to us; that is, in research we seek reliable and valid observations.

RELIABILITY

The concept of reliability refers to the extent to which our observations are stable, dependable, and can be replicated. There are many different kinds of reliability, and many different factors may contribute to a lack of reliability. However, an essential factor in all scientific research is that other investigators must be able to reproduce or replicate the observations reported by one investigator. We must have stable, consistent observations to even begin to make theoretical interpretations.

What are some of the factors that might contribute to unreliable observations? On the subject side, if subject performance is greatly influenced in unsystematic ways by transient factors such as attitude or mood, then unreliable observations are likely. For example, if a person is taking the same personality test on two different days, and

responses on one day are altered by a chance event that day, scores on the two days will differ. This resulting lack of agreement, or lack of reliability, is a problem if the test is assumed to measure stable personality characteristics that are relatively uninfluenced by temporary states or moods.

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On the experimenter side, variations in instructions to subjects, as well as in measuring or interpreting responses, can lead to a lack of reliability. For example, carelessness in scoring a test or ambiguous rules for interpreting scores can lead to a lack of agreement, or lack of reliability, among testers.

VALIDITY

In addition to reliable observations, our data must be valid. The concept of validity refers to the extent to which our observations indeed reflect the phenomena or variables of interest to us. What use are reliable observations if they do not relate to what we think they do? Suppose, for example, that we have a reliable test for the personality traits of neuroticism or extraversion, but there is no evidence that the test measures what it purports to measure. Of what use is such a measure? Suppose that we take certain behaviors to be expressive of neuroticism, but they reflect other phenomena. Of what use is such a measure? Problems such as this may seem trivial in some areas. For example, we know that a scale is both a reliable and a valid measure of weight, and we know that a ruler is both a reliable and a valid measure of height. But how do we know that

certain behaviors are expressive of extraversion or that answers to certain questionnaire items are indicative of neuroticism?

Unfortunately, in personality research it is not unusual for different tests or measures of the same concept to disagree with one another. Which, then is the true or valid measure? If there are two different measures of temperature, how can we know which one is true or valid? The answer is the measure that gives us the most reliable and theoretically useful results. If there are two different measures of a personality concept, how do we know which one

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is true or valid? Here, too, we would consider the reliability, meaningfulness, and usefulness of the observations. In sum, validity concerns the extent to which we can be sure that we are measuring the phenomena or variables of interest to us. As we shall see, different kinds of personality research present different challenges in regard to satisfying the criteria of reliability and validity.

THE ETHICS OF RESEARCH AND PUBLIC POLICY

As a human enterprise, research involves ethical issues in terms of how we conduct research and report our results. Over the past decades a number of studies have brought into sharp focus some of the issues involved. For example, in one research effort that won a prize from the American Association for the Advancement of Science, subjects were told to teach other subjects ("learners") a list of paired associate words and to punish them with an electric shock when an error was made (Milgram, 1965). The issue investigated

was obedience to authority. Although actual shock was not used, the subjects believed that it was being used and often administered high levels despite pleas from the learners that it was painful. In another research effort in which a prison environment was simulated, subjects adopted the roles of guards and prisoners (Zimbardo, 1973). Subject "guards" were found to be verbally and physically aggressive to subject "prisoners," who allowed themselves to be treated in a dehumanized way.

Such programs are dramatic in terms of the issues they raise, but the underlying question concerning ethical principles of research is fundamental. Do experimenters have the right to require participation? To deceive subjects? What are the ethical

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responsibilities of researchers to subjects and to psychology as a science? The former has been an issue of concern to the American Psychological Association, which has adopted a list of relevant ethical principles (Ethical Principles of Psychologists, 1981). The essence of these principles is that "the psychologist carries out the investigation with respect and concern for the dignity and welfare of the people who participate." This includes evaluating the ethical acceptability of the research, determining whether subjects in the study will be at risk in any way, and establishing a clear and fair agreement with research participants concerning the obligations and responsibilities of each. Although the use of concealment or deception is recognized as necessary in some cases, strict guidelines

are presented. It is the investigators responsibility to protect participants from physical and mental discomfort, harm, and danger. The ethical responsibility of psychologists includes the interpretation and presentation of results as well as the conduct of the research. Of late there has been serious concern in science generally with "the spreading stain of fraud" (APA Monitor, 1982). Some concern with this issue began with charges that Sir Cyril Burt, a once prominent British psychologist, intentionally misrepresented data in his research on the inheritance of intelligence. In other fields of science there have been reports of investigators intentionally manipulating data to enhance their chances of publication, grant funding, promotion, and public recognition. The issue of fraud is one that scientists do not like to recognize or talk about because it goes against the essence of the scientific enterprise. Although fraudulent data and falsified conclusions are rare, psychologists are beginning to face up to their existence and to take constructive steps to solve the problem.

Much more subtle than fraud, and undoubtedly of much broader significance, is the issue of the effects of personal and social bias on the ways in which issues are developed and the kinds of data that are accepted as evidence in support for a given enterprise

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(Pervin, 1978b). In considering sex differences, for example, to what extent are research projects developed in a way that is free from bias? To what extent is evidence for or against the existence of

sex differences equally likely to be accepted? To what extent do our own social and political values influence not only what is studied but how it is studied and the kinds of conclusions we are prepared to reach (Bramel & Friend, 1981)? As noted, although scientists make every effort to be objective and remove all possible sources of error and bias from their research, this remains a human enterprise with the potential for personal, social, cultural, and political influence.

Finally, we may note the role of research in personnel decisions and the formulation of public policy. Though still in an early stage of development as a science, psychology does relate to fundamental human concerns, and psychologists often are called on to administer tests relevant to employment or admissions decisions and to suggest the relevance of research for public policy. Personality tests often are used as part of employment, promotion, or admission to graduate programs; research findings have influenced government policy in regard to immigration policy, early enrichment programs such as Head Start, and television violence. This being the case, psychologists have a responsibility to be careful in the presentation of their findings and to inform others of the limits of their findings in regard to personnel and policy decisions.

THREE GENERAL APPROACHES TO RESEARCH

Although all personality researchers hold the goals of reliability, validity, and theory development in common, they differ in strategy concerning

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the best routes to these goals. In some cases, the differences in research strategies are minor, limited to the choice of one experimental procedure or test over another. In other cases, however, the differences are major and express a more fundamental difference in approach. Research in personality has tended to follow one of three directions, and we now turn to a description of these approaches. For comparative purposes, we will consider research from each approach relevant to the topic of stress and helplessness. This will enable us to see how data gathered from different research procedures can be consistent and can lead to a greater understanding of the phenomena of interest. The topic of stress and helplessness is selected because of its intrinsic interest, as well as its current importance in personality research.

CASE STUDIES AND CLINICAL RESEARCH

Clinical research involves the intensive study of individuals. The material gathered by the psychoanalyst Sigmund Freud illustrates this approach. Case studies and the in-depth observations made by clinicians working with patients have played an important role in the development of some major theories of personality. As the theories were evolving, and once they were developed, additional efforts were made to formulate hypotheses that could be tested more systematically, through either the use of personality tests and questionnaires, or through experimental means. However, the initial focus of these theorists was on their observations of patients, and these clinical observations by them and their followers continued to

play a major role in the further elaboration of the theories.

How has clinical research been used in relation to stress and helplessness? The concept of anxiety, related to that of stress, has received considerable clinical attention. The noted psychoanalyst Rollo May,

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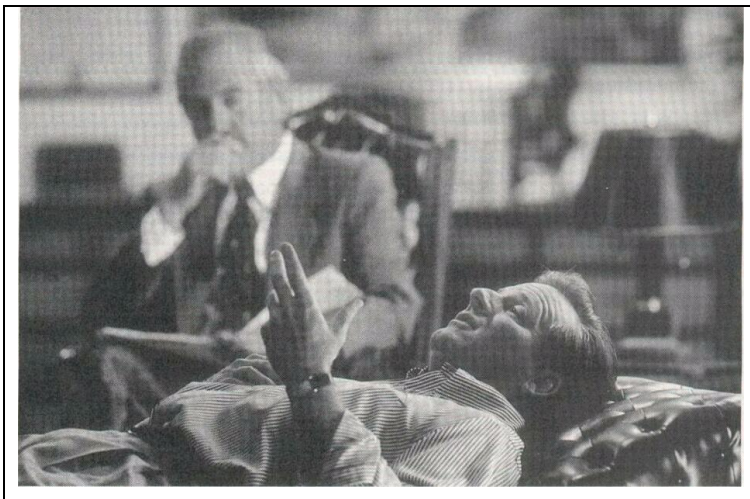
in an early review of the literature, concluded that "the special characteristics of anxiety are the feelings of uncertainty and helplessness in the face of danger" (1950, p. 191). Uncertainty (or lack of cognitive structure) and a sense of helplessness (or lack of control) are mentioned repeatedly in the clinical literature. The former often is expressed in the "fear of the unknown" and is seen as related to a sense of powerlessness or helplessness: An unknown danger creates a situation where activity cannot be



Tactics of Research: Case studies represent one approach to personality research.

directed toward any one goal, with a resultant feeling of mental

paralysis and helplessness (Kris, 1944). Among the many valuable clinical investigations of responses to stress have been the studies by Grinker and Spiegel (1945) of the reactions of World War II airmen to battle stress.

Reactions to Battle Stress

After World War II, two psychoanalysts (Grinker & Spiegel, 1945) reported on their experiences in interviewing and treating individuals engaged in air battle. Their book, Men Under Stress, is a fascinating account of the stress that is common to all combatants and the varied reactions that occur among different individuals. After describing the kinds

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of dangers to which the airmen are exposed and their use of group morale to deal with the constant threats facing them, the authors raise the question: Of what is the airman afraid? Their description of the relationship between helplessness and anxiety is as follows:

Although the fear of the aircraft and of human inefficiency are a constant source of stress, the greatest fear is attached to enemy activity. The enemy has only two forms of defense against our combat aircraft: fighter planes and flak [antiaircraft guns]. The enemy's fighter aircraft are efficient and highly respected by our combat crew members. But they are not as great a source of anxiety as flak. Enemy planes are objects that can be fought against. They can be shot down or outmaneuvered. Flak is impersonal, inexorable,

and as used by the Germans, deadly accurate. It is nothing that can be dealt with—a greasy black smudge in the sky until the burst is close. (SOURCE: Grinker and Spiegel, 1945, p. 34)

Grinker and Spiegel similarly describe the response of ground forces to enemy air and mortar attack. What is so stressful is that "there is nothing in the environment which can be used to anticipate the approach of danger... any stimuli may actually mean the beginning of an attack. Inhibition of anxiety becomes increasingly difficult" (1945, p. 52). According to these psychoanalysts, the initial reaction to such stress is heightened tension and alertness. The person becomes mentally and physically prepared for trouble so as to counteract the threat and avoid loss of control. A variety of means can be used to deal with the threat, but in the final analysis, "mastery, or its opposite, helplessness, is the key to the ultimate emotional reaction" (p. 129). Confidence is lessened by near misses, physical fatigue,

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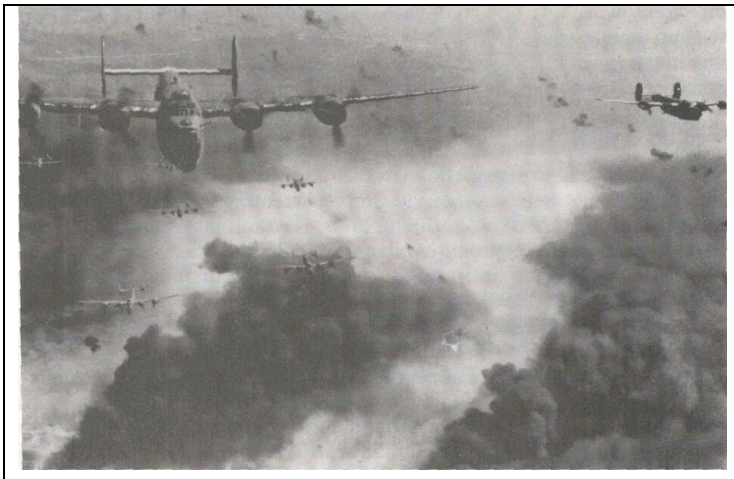
and the loss of friends. Efforts to see the self as invulnerable (incapable of being harmed) become increasingly difficult:
"Out of the ensuing helplessness is born the intense anxiety" (p. 129). Some strive to hold on to ideas of personal invulnerability ("It can't happen to me"), whereas others hold on to a faith in magical or supernatural powers ("God is my copilot").



Clinical Research: During World War II psychiatrists and psychologists treated and studied combat men under stress, such as flying personnel subjected to enemy flak.

Whatever the nature of the efforts, they can be viewed as attempts to deal with the threatened loss of control or experience of helplessness. With prolonged stress, the development of almost any type of neurotic and psychosomatic (psychologically induced illness) reaction is possible. These reactions are grouped under the term operational fatigue and generally include a mixture of anxiety, depression, and psychosomatic reaction. The depression that is so common in such cases is associated with a sense of failure ("I've let my buddies down") and wounded pride. In sum, the main component of the anxiety is the sense of helplessness in the presence of a perceived danger. Prolonged stress of this sort leads to a psychological and physical breakdown expressed in a variety of neurotic reactions that are often accompanied by fatalism and

depression.

These observations of Grinker and Spiegel are interesting, not only in relation to stress and helplessness, but in relation to our understanding of depression as well. Note that they tie depression to prolonged stress, to a sense of failure, and to wounded pride. Bibring (1953) emphasizes similar factors in his clinical analysis of patient reports of depression. For example, he describes a patient who became depressed whenever his fear of remaining weak was aroused, another patient who became depressed when confronted with a power beyond her reach, and people who became psychologically depressed during the economic depression of the 1930s and the political crises prior to World War II. The common themes running throughout cases of depression, Bibring suggests, Are helplessness, a feeling of doom, and a blow to the persons self-esteem.

LABORATORY STUDIES AND EXPERIMENTAL RESEARCH

Experimental research involves efforts to gain control over the variables of interest and establish if-then causal relationships. In experimental approach, for example, the researcher might create conditions of high, moderate, and low anxiety and observe the effects of such varying degrees of anxiety on thought processes or interpersonal behavior. The goal is to be able to make specific statements about causation; that is, by changing one variable, one can produce changes in another variable. The laboratory provides the setting for such research.

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Clinical research and experimental research contrast markedly with one another in many ways. Whereas clinicians make observations as close to life as possible, allow events to unfold, and study only a few individuals, experimental research in the laboratory involves tight control over the variables and the study of many subjects. To appreciate the experimental approach, let us consider a research program directed to an understanding of the effects of stress and helplessness. The focus here is on the use of experimental procedures in the laboratory setting, though we shall see that these efforts have expanded into the use of other research procedures as well.

Tactics of Research: The experimenter here is testing the development of cognition in children.

Learned Helplessness

As an illustration of the laboratory approach to research, let us

consider the important work of Seligman and the concept of learned helplessness. In the course of some early work on fear conditioning and learning, Seligman and his coworkers observed that dogs that had experienced uncontrollable shocks in one situation transferred their sense of helplessness to another situation where shock was avoidable. In the first situation, dogs were put in a situation where

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no response they made could affect the onset, offset, duration, or intensity of the shocks. When placed in a second, different situation where jumping over a barrier could lead to escape from shock, most of the dogs seemed to give up and accept the shock passively. They had learned in the first condition that they were helpless to influence the shocks and transferred this learning to the second condition. Note that this was true for most of the dogs (about two-thirds), but not for all—an important difference among individuals that will be returned to later, The behavior of the dogs that had learned they were helpless was particularly striking in contrast with that of dogs that received no shock or shock under different conditions. Given the situation where escape and avoidance were possible, the latter dogs ran frantically until they accidentally stumbled on the response that led to escape. Thereafter they progressively learned to move to that response more quickly until finally, they were able to avoid the shock altogether. In contrast to such "healthy" dogs, the dogs with learned helplessness similarly first ran frantically, but then they stopped, laid down, and whined. With succeeding trials the dogs

gave up more and more quickly and accepted the shock more passively—the classic learned helplessness response. The depth of their despair became so great that it became extremely difficult to change the nature of their expectations. The experimenters tried to make it easier for the dogs to escape and tried to get them to come to safety by attracting them with food-to no avail. By and large, the dogs just lay there.

Even outside that situation, the behavior of the helpless dogs was different from that of the nonhelpless dogs: "When an experimenter goes to the home cage and attempts to remove a nonhelpless dog, it does not comply eagerly; it barks, runs to the back of the cage, and resists handling. In contrast, helpless dogs seem

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to wilt; they passively sink to the bottom of the cage, occasionally even rolling over and adopting a submissive posture; they do not resist" (Seligman, 1975, p. 25).

Further research demonstrated that the same phenomena found in dogs could be produced in humans (Hiroto, 1974). In this research one group of college students heard a loud noise that they could terminate by pushing a button, a second group heard the same noise but could not stop it, and a third (control) group did not hear a noise. All three groups were then put in another situation where in order to escape the noise they had to move their hand from one side of the

box to the other once

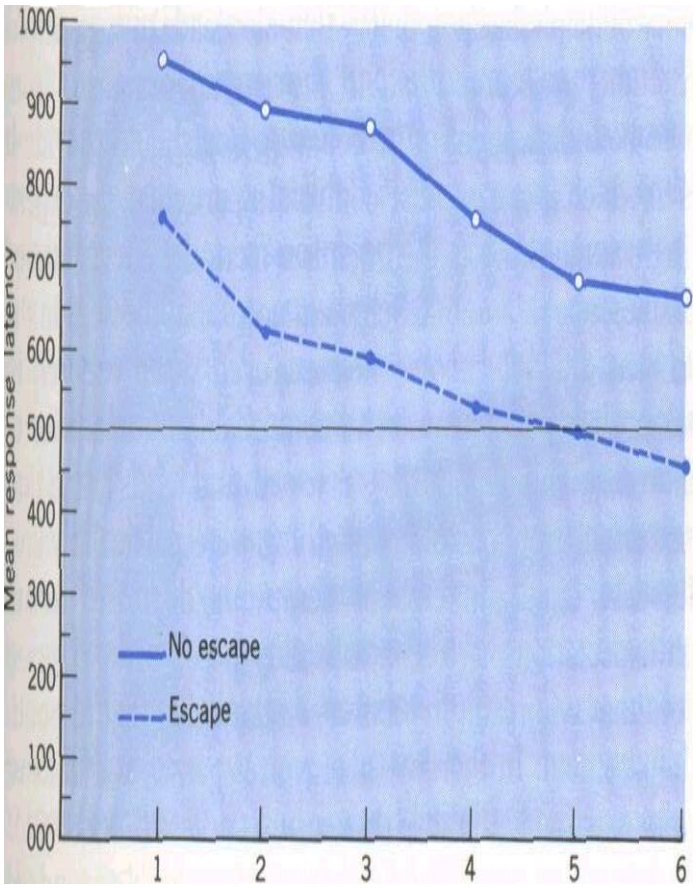

Figure 2.1 Learned Helplessness in Humans. As in the animal research, subjects who were first in the no-escape treatment condition took longer to respond and failed to escape more often in the test situation than did subjects who were first in the escape condition.

(Hiroto, 1974.)

a light signal had gone on. The members of the first and third groups quickly learned to escape the noise by moving their hands, but the members of the learned helplessness group failed to escape the noise; most sat passively and accepted the painful noise. The measure of the learned helplessness effect was response latency, or how long it took the subjects to move their hand once the light signal went on. In sum, manipulation of the escape versus no-escape conditions in the first phase of

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the experiment produced clear evidence of differences in learned helplessness in the second phase of the experiment (Figure 2.1).

Additional research demonstrated that such learned helplessness could generalize beyond the initial task to a broad range of behaviors (Hiroto & Seligman, 1975). Studies have demonstrated that learned helplessness can occur through observing helpless models (Brown & Inouye, 1978; DeVellis, DeVellis, & McCauley,

1978). Individuals will give up more easily if they see themselves as similar to a helpless model than if they observe a successful model or if they perceive themselves as more competent than the observed model.

Seligman’s explanation of the learned helplessness phenomenon was that the animal or person learns that outcomes are not affected by its behavior. The expectation that outcomes are independent of the organism's response then has motivational, cognitive, and emotional implications:

(1) Uncontrollable events undermine the organisms motivation to initiate other responses that might result in control.

(2) As a result of uncontrollability of previous events, the organism has difficulty learning that its response can have an effect on other events.

(3) Repeated experiences with uncontrollable events eventually lead to an emotional state similar to that identified in humans as depression.

This is the theory of helplessness, a theory that also leads to suggestions concerning prevention and cure. First, to prevent an organism from expecting events to be independent of its behavior, one should provide it with experiences in which it can exercise control. In particular, the experience of controlling trauma protects the organism from the effects caused

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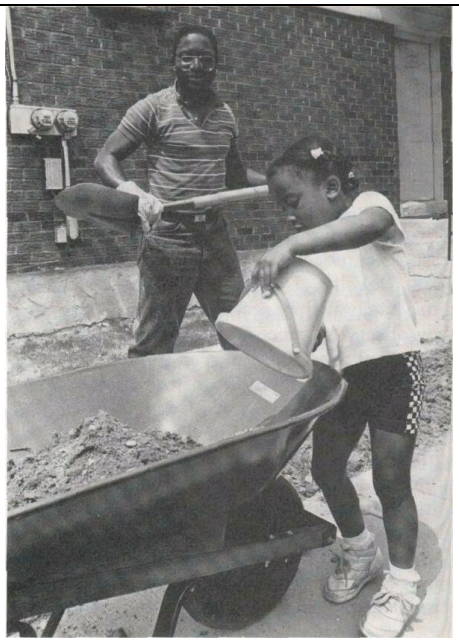
by experiences of unescapable trauma. Seligman notes that the dogs in the original research that did not become helpless even when exposed to inescapable shock probably had histories of controllable trauma prior to coming to the laboratory. This hypothesis was tested, and it was found that dogs with little experience in controlling anything were particularly susceptible to helplessness. Finally, in terms of therapy, the depressed person who suffers from expectations of uncontrollability needs to be directed toward experiences that will result in recovery of the belief that responding produces reinforcement. In therapy this involves games and tasks of increasing difficulty, starting with those that ensure success (Beck, 1991).

The learned helplessness model and associated research are indeed impressive. The negative effects of experience with uncontrollable events have been produced in cats, fish, and rats, as well as in dogs and humans.

Learned Helplessness: Childhood experiences associated with the feeling of control and competence can help to prevent the development of Learned helplessness.	

However, further research with humans has suggested that factors in addition to experience with uncontrollability appear to be important in determining the consequent effects. At least with humans the effects of experience with uncontrollable events appear

to depend on how the person interprets what has occurred. Observation of varying effects, depending on modifications in the experimental design or on individual differences in people, has led to a reformulated model of learned helplessness. Although we have not yet covered all the experimental research on learned helplessness, much of the research following from the reformulated model

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has used correlational rather than experimental procedures. We shall review some of this research in the next section. At this point, however, we may take stock of some of the defining characteristics of experimental research as seen in the efforts of Seligman. In this research program we have seen the careful manipulation and control of the relevant variables and, by and large, a focus on systematic influences that are independent of individual differences.

PERSONALITY QUESTIONNAIRES AND CORRELATIONAL RESEARCH

Personality tests and questionnaires are used where the intensive study of individuals is not possible or desirable, and where it is not possible to conduct laboratory experiments. Beyond this, the advantage of personality questionnaires is that a great deal of information can be gathered on many subjects at one time. Although no

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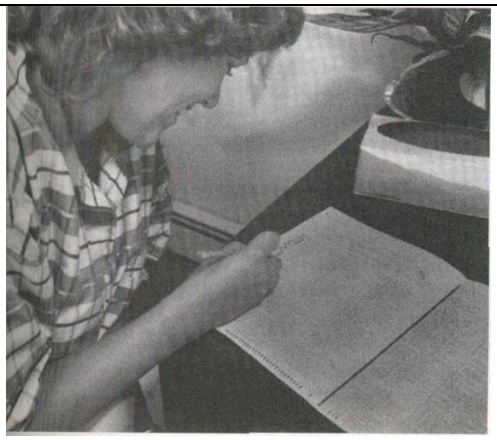
one individual is studied as intensively as with the case study approach, the investigator can study many different personality

characteristics in relation to many different subjects. Although the investigator cannot demonstrate control over the variables of interest, as in the experimental method, there is the opportunity to study variables that are not easily produced in the laboratory.



Tactics of Research: Personality questionnaires are used to obtain a great deal of information about many subjects.

The use of personality tests and questionnaires has tended to be associated with an interest in differences among individuals. For example, personality psychologists have an interest in individual differences in anxiety, friendliness, or dominance. In addition, there has been a tendency by those psychologists to study whether individuals who differ in one personality characteristic also differ in another characteristic. For example, are individuals who are more anxious also less creative? More inhibited in their interpersonal behavior? Research of this kind is known as correlational research. In correlational research the investigator seeks to establish a relationship between two or more variables that do not lend themselves readily to experimental manipulation and control.

An association or correlation is established, rather than a cause-effect relationship. For example, we might be able to say that anxiety is associated with an increase in rigidity rather than that anxiety caused an increase in rigidity. Because of the emphasis on individual differences and the study of many variables at one time, questionnaires and correlational research have been very popular among personality psychologists.

Internal-External Locus of Control

An interesting comparison of the experimental and correlational perspectives may be made by returning briefly to the experimental research on learned helplessness in humans (Figure 2.1). Remember that it was demonstrated that human subjects who were first in the no-escape treatment condition took longer to respond to a signal light and more often failed to escape in the test situation than did subjects who were first in the escape condition. The interpretation was that in the no-escape condition the subjects learned that outcomes were not affected by their behavior. Would subjects who already differed in their beliefs concerning their ability to influence outcomes also differ in their performance in the second situation? In other words, could one find in people differences that occurred naturally and also reproduced the effects of the experimental manipulations? We can now consider another feature of Hirotos research on learned helplessness in humans. Hiroto considered the effects of not only no-escape and escape treatment conditions on later performance, but also differences in the

personality characteristic known as locus of control.

The concept of locus of control is part of Rotters (1966, 1982) social learning theory of personality and represents a generalized expectancy concerning the determinants of rewards and punishments in one's life. At one extreme are people who believe in their ability to control life's events, that is, internal locus of control. At the other extreme are people who believe that life's events,

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such as rewards and punishments, are the result of external factors such as chance, luck, or fate; that is, external locus of control. The Internal-External (I-E) Scale has been developed to measure individual differences in perception of the extent to which rewards and punishments are generally under internal or external control. Representative items are presented in Figure 2.2.

la. Many of the unhappy things in people's lives are due partly to bad luck. Ib. Peoples misfortunes result from the mistakes they make. 2a. One of the major reasons we have wars is that people don't take enough interest in politics. 2b. There will always be wars, no matter how hard people try to prevent them. 3a. Sometimes I can't understand how teachers arrive at the grades they

give. 3b. There is a direct connection between how hard I study and the grades I
get.
4a. The average citizen can have an influence in government decisions. 4b. This world is run by the few people in power and there isn't much the
little guy can do about it.

Figure 2.2 Illustrative items from Rotter's Internal-External Locus of Control Scale.

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Since the beliefs of external locus of control people closely resembled the beliefs that are part of learned helplessness, Hiroto suspected that people differing in the personality characteristic of locus of control would perform differently in the test situation. Dividing subjects up into extreme groups of internal and external locus of control on the basis of responses to the I-E Scale, Hiroto exposed members of each group to the no-escape and escape conditions and then looked at their performance in the second or test situation. As expected, he found that external locus of control subjects, regardless of their pretreatment, were slower to escape or to avoid than were the internal locus of control subjects (Figure 2.3).

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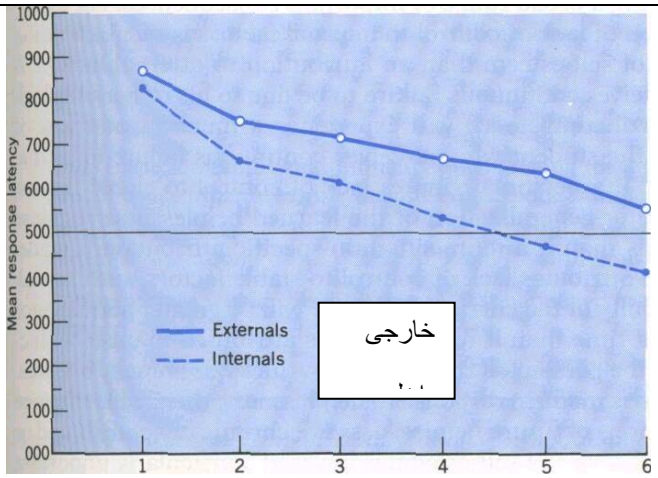

عقبات التجارب الثلاث

Figure 2.3 Locus of Control and Performance. The personality variable of externality appears to function like the pretreatment variable of inescapability. In view of the parallel effects created by inescapability and externality, it is likely that the same underlying process exists in each—that is, the expectancy that responding and reinforcement are independent. (Hiroto, 1974.

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In other words, the personality variable of externality appeared to function like the pretreatment variable of inescapability. An association was found between an already existent personality difference and performance in a test situation.

Causal Attributions: Explanatory Style

To illustrate further the correlational approach to personality research, as well as the combined use of questionnaires with experimental procedures, let us continue with the story of research on learned helplessness. Earlier we noted that the original formulation of learned helplessness could not account for the varied consequences of uncontrollability often found in human subjects. How people interpret the events and the basis for their helplessness seemed to be important. This led to a reformulated model of learned helplessness (Abramson, Seligman, & Teasdale, 1978; Abramson, Garber, & Seligman, 1980). According to this reformulation, when

people find themselves helpless, they ask why they are helpless. People answer the question why in terms of causal attributions. Three dimensions of causal attribution are suggested as important. First, people may attribute the cause of their helplessness to themselves or to the nature of the situation. In the former case, the cause of helplessness is seen as being internal or personal. In the latter case, it is seen as being external or universal. Second, people may attribute helplessness to factors specific to the situation they are in, or to more general conditions in the world around them or in themselves. Third, people may perceive the conditions of their situation to be stable and relatively permanent, or unstable and perhaps temporary.

In sum, three dimensions of causal attribution are suggested in the reformulated model of learned helplessness:

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internal-external, specific-global, and stable-unstable. The attribution made by a person is seen as determining a broad range of important consequences. For example, the attribution of lack of control to internal factors is seen as leading to a greater loss of self-esteem than an attribution to external factors. A student who perceives continuous failure to be due to his or her own lack of intelligence or incompetence will experience a much greater loss of self-esteem than the student who perceives continuous failure to be due to poor teaching. If a person attributes lack of control to global factors, there will be greater generalization of the learned

helplessness response to other situations than if a more situation-specific attribution is made. And if the person attributes lack of control to stable factors, such as lack of ability or difficulty of the curriculum, there will be greater permanence of the effects over time than if helplessness is attributed to unstable factors such as how the person felt that day or how lucky or unlucky one was. Which attribution is made in response to helplessness, then, will influence whether expectations of future helplessness are chronic or acute, broad or narrow, and whether or not self-esteem is lowered. Particularly important is the suggestion that internal, global, and stable attributions have important implications for the development of depression.

Attributional Style Questionnaire (ASQ) An experimental approach to the reformulated model of learned helplessness involves the manipulation of causal attributions and observation of the resultant motivational and emotional effects. Thus, for example, subjects could be exposed to conditions that would lead them to make internal or external attributions for failure, and differences in consequent effects on self-esteem would be predicted. Although there is some support for the attributional reformulation from experimental research, most such studies

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have had methodological problems in producing the desired attributions or helplessness effects. To facilitate research in this area, the Attributional Style Questionnaire (ASQ) was developed to

measure individual differences in the use of the three specified attributional dimensions (Peterson, 1991). In this questionnaire subjects are asked to give a cause for each of 12 hypothetical events and then to rate the cause on scales relevant to the internal-external, stable-unstable, and specific-global dimensions. An illustrative question appears in Figure 2.4. Six of the hypothetical events are good (e.g., "You become very rich") and six are bad (e.g., "You go out on a date and it goes badly"). In addition, some events are interpersonal,

You have been looking unsuccessfully for a job for some time

1. Write down the one major cause.----------
   ----
2. Is the cause of your unsuccessful job search due to something about you, or to something about other people or circumstances? (circle one number)

   Totally due to other people or circumstances 1234567 Totally due to me.
3. In the future, when looking for a job, will this cause again be present? (circle one number)

   Will never again be present 1234567 Will always be

present

4. Is the cause something that influences just looking for a job, or does it also influence other areas of your life? (circle one number)

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Influences just this Influences all

particular situtation 1234567 situations in my life.

5. How important would this situation be if it happened to you? (circle one number)

Not at all important 1234567 Extremely important

Figure 2.4 Illustrative Item-The Attributional Style Questionnaire (ASQ).

(Peterson et at, 1982, p. 292.)

whereas others have to do with achievement. The assumptions are that people have characteristic attributional tendencies or styles and that these can be measured with a questionnaire.

According to the reformulated learned helplessness model, attributing uncontrollable bad events to internal, stable, and global factors leads to depression. This would suggest that people scoring high on these dimensions on the ASQ should show more depression

than people scoring low. Indeed, the authors of the ASQ report an association or correlation between a style in which internal, stable, and global attributions are made for bad events and depressive symptoms in college students, adults, and patients. Scores on the ASQ have been found to be associated with the development of depressive symptoms following poor performance by college students on a midterm examination. Finally, in a study using a similar questionnaire, it was found that depression was associated with blame directed at ones character, but not at one's behavior (Peterson, Schwartz, & Seligman, 1981). Bad events attributed to character ("I'm that kind of person") were viewed as less controllable than events attributed to behavior ("I did something"). In addition, characterological blame was associated with more stable and global attributions than was

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behavior blame. However, self-blame or characterological blame could not be determined to be a cause of depression. That is, characterological self-blame was found to be associated with, but not a cause of, later depressive symptoms.

The final point made in relation to the above study is important both for the reformulated learned helplessness model of depression and for an appreciation of the limits of correlational research. This research suggests an association between internal, global, and stable attributions for bad events and depression, but the research does not demonstrate that such cognitive attributions cause depression. Could

they be a part of depression and caused by the same factors that lead to the depression? Indeed, a major study of people before and after they became depressed found that depression-related cognitions did not predict future depression and appeared to be more of a concomitant of depression than a cause of it. Prior to becoming depressed, the future depressives did not attribute failure to internal causes or perceive themselves as having little control over events in their lives (Lewinsohn, Steinmetz, Larson, & Franklin, 1981).

Explanatory Style It has been about 10 years since the development of the concept of attributional style, now called explanatory style, and the means for measuring it. An impressive body of research, primarily correlational, has been established. A recent review of the literature concerning the meaning and measurement of explanatory style suggests the following (Peterson, 1991; Peterson, Maier, & Seligman, 1993):

1. There is considerable evidence of the widespread impact of learned helplessness in both humans and animals.

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2. There is considerable evidence that people have characteristic explanatory styles that are stable over extended periods of time, perhaps over the life span of an individual.
3. Explanatory style has implications for motivation, emotion, and behavior. Most specifically, a pessimistic explanatory style (internal, stable, global explanations for

negative events) is associated with less motivation, poorer performance, and more negative emotion than an optimistic explanatory style. In the words of the famous baseball player Yogi Berra: "Ninety percent of the game is fifty percent mental."

4. The symptoms of learned helplessness match those of depression. Depressed individuals, both adults and children, make internal, stable, and global explanations for bad events as well as external, unstable, and specific explanations for good events. Although a pessimistic explanatory style has been found to be associated with depression, it has not been demonstrated to be the cause of depression (Robins & Hayes, 1995)
5. Cognitive therapy can improve explanatory style and lead to significant relief from depression (DeRubeis & Hollon, 1995).
6. Learned helplessness and pessimistic explanatory style are associated with poor health. A pessimistic explanatory style in early adulthood is a risk factor for poor health in middle and late adulthood.

This impressive body of findings leads Seligman and his coworkers to a very optimistic picture of what can be accomplished in the future: "We know how to remake society in a way that will benefit the individual and the group... At our most Utopian, we

envision the creation of Optimism Institutes, centers in which basic research on personal control is conducted and then applied to schools, work settings, and society itself"

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(Peterson, Maier, & Seligman, 1993, pp. 309-310).

Although we have this impressive body of research, we should recognize that not all the findings have been supportive and a number of important problems have been raised. Among them are the following, many of them suggestive of some of the potential limitations of correlational research and the use of questionnaires {Psychological Inquiry, 1991, vol. 2, no. I):

1- Responses to the ASQ may not match actual causal attributions.
2- People may have explanations for specific events rather than more generalized explanatory styles.
3- The specific importance of the components of explanatory style (internal-external, stable-unstable, global-specific) remains to be determined, as does the importance of attributions for positive events.

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CURRENT APPLICATION

EXPLANATORY STYLE, JOB SUCCESS/AND HEALTH

Seligmans research on explanatory style has expanded beyond depression to the realms of job performance, athletic success, and

health, leading to headlines in the mass media of "Research Affirms Power of Positive Thinking" and "Stop Blaming Yourself."

Do life insurance sales agents with an optimistic explanatory style remain on the job longer and sell more life insurance than those with a pessimistic style? Since sales agents repeatedly encounter failure, rejection, and indifference from prospective clients, Seligman reasoned that "optimists" would weather the challenge better than "pessimists."

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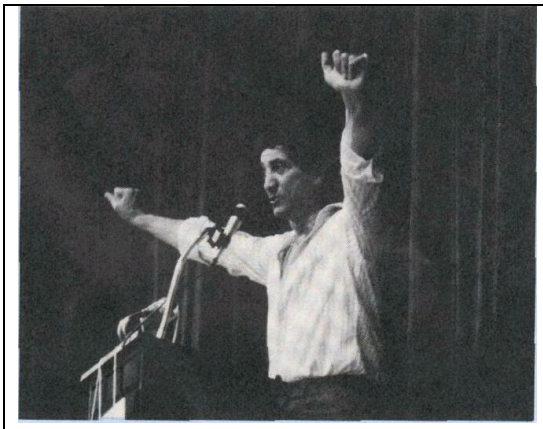
(Optimists have internal, stable, and global explanations for positive events and external, unstable, and specific explanations for negative events. The opposite holds true for pessimists.) Evidently, the answer to the above question is a clear yes. According to Seligman, "I think we've got a test for who can face a stressful, challenging job and who can't. My guess is that this test could save the insurance company millions of dollars a year in training alone since it costs about $30,000 each to train new people and half of them quit."

In terms of athletic success, teams and athletes with optimistic explanatory styles have been found to perform better than their competitors with pessimistic explanatory styles, especially under pressure. And, in terms of health, there is evidence that thinking "good" is associated with feeling "well," perhaps because the good immunological system of optimists provides greater resistance to disease than the disease-fighting system of pesssimists.

SOURCE: Peterson, 1995; Rettew & Reivich, 1995;
Schulmaii, 1995; Seligman, 1991.



Optimisim and Job Success:
An optimistic explanatory style is associated with success in sales.

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4- It remains unclear whether explanatory style precedes and causes depression as opposed to being a contributing factor, an accompanying ingredient of depression, or even a result of depression.
5- Pessimism scores derived from the ASQ (internal, stable, and global explanatory styles for negative events) do not show high agreement with pessimism scores derived from other personality questionnaires.

Particularly noteworthy are three potential problems with this approach to research: (1) A questionnaire may be used to derive a single, composite score, whereas there may be a number of different components to the questionnaire, each deserving of a separate score. (2) Scores derived from one measure of a personality variable may not agree with scores derived from another measure of what is

assumed to be the same personality variable. (3) It is difficult to establish causal relations.

EVALUATING ALTERNATIVE RESEARCH APPROACHES

Having considered the goals of all personality research, we are in a position to evaluate the three major research strategies. We shall see that as a consequence of proceeding along different lines, each strategy may be characterized as having both strengths and limitations.

CASE STUDIES AND CLINICAL RESEARCH: STRENGTHS AND LIMITATIONS

Clinical research has strengths and limitations, depending on what is being investigated and how the research is conducted. Generally in clinical research, one examines the behavior of interest directly and does not have to extrapolate from a somewhat artificial setting to the real world. Clinical research may also be the only feasible means for the study of some phenomena (e.g., wartime stress).Andthroughthe use of case studies, one can observe the full complexity of personality processes and individual-environment relationships.

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We have already suggested that part of what is distinctive about the field of personality is its emphasis on the organization of structures and processes within the person. In-depth clinical research and case studies provide an opportunity for the study of such organization. At the same time, such research may involve subjective impressions on

the part of researchers, resulting in different observations by each investigator. Insofar as researchers make observations on a subjective basis, they accumulate data that decline considerably in reliability and validity.

In-depth study of a few individuals has two main features that stand in contrast with research on groups (Pervin, 1983). First, relationships established for a group as a whole may not reflect the way any individual behaves or the way some subgroups of individuals behave. The average learning curve, for example, may not reflect the way any one individual learns. Second, by considering only group data, one may miss some valuable insights into processes going on in particular individuals. Some time ago, Henry Murray argued for the utility of individual as well as group studies as follows: "In lay words, the subjects who gave the majority response may have done so for different reasons. Furthermore, a statistical answer leaves unexplained the uncommon (exhibited-by-the-minority) response. One can only ignore it as an unhappy exception to the rule. Averages obliterate the ' individual characters of individual organisms' and so fail to reveal the complex interaction of forces which determine each concrete event" (1938, p. viii).

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The Use of Verbal Reports

Clinical research in personality need not involve the use of verbal reports by subjects, though clearly it often does. In making use of verbal reports, we are confronted with special problems

associated with such data. Treating what people say as accurate reflections of what has actually occurred or is actually going on has come under attack from two very different groups. First, psychoanalysts and dynamically oriented psychologists (Chapters 3 and 4) argue that people often distort things for unconscious reasons; "Children perceive inaccurately, are very little conscious of their inner states and retain fallacious recollections of occurrences. Many adults are hardly better" (Murray, 1938, p. 15). Second, many experimental psychologists argue that people do not have access to their internal processes and respond to interviewer questions in terms of some inferences they make about what must have been going on rather than accurately reporting what actually occurred (Nisbett & Wilson, 1977; Wilson, Hull, & Johnson, 1981). For example, despite experimenter evidence that subjects make decisions in accord with certain experimental manipulations, the subjects themselves may report having behaved in a particular way for very different reasons. Or, to take another example, when consumers are asked about why they purchased a product in a supermarket they may give a reason that is very different from what can experimentally be demonstrated to have been the case. In a sense, people give subjective reasons for behaving as they do, but may not give

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the actual causes. In sum, the argument is that whether for defensive reasons or because of "normal" problems people have in keeping track of their internal processes, verbal self-reports are questionable

sources of reliable and valid data (Wilson, 1994).

Other psychologists argue that verbal reports should be accepted for what they are-data (Ericsson & Simon, 1993). The argument is made that there is no intrinsic reason to treat verbal reports as any less useful data than an overt motor response such as pressing a lever. Indeed, it is possible to analyze the verbal responses of people in as objective, systematic, and quantitative fashion as their other behavioral responses. If | verbal responses are not automatically discounted, then the question becomes: Which kinds of verbal responses are most useful and trustworthy?

Here the argument is made that subjects can only report about things they are attending to or have attended to. If the experimenter asks the subject to remember or explain things that were never attended to in the first place, the subject will either make an inference or state a hypothesis about what occurred (White, 1980). Thus, if you later ask persons why they purchased one product over another in the supermarket when they were not attending to this decision at the time, they will give you an inference or a hypothesis rather than an account of what occurred.

Those who argue in favor of the use of verbal reports suggest that when they are elicited with care and the circumstances involved are appreciated, they can be a useful source of information. Althoughthetermintrospection (i.e., verbal descriptions of process going on inside a person) was discredited long ago by experimental psychologists, there is now increased interest in the potential utility

of such data.

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In accepting the potential utility of verbal reports, we may expand the universe of potential data for rich and meaningful observation. At the same time, we must keep in mind the goals and requirements of reliability and validity. Thus, we must insist on evidence that the same observations and interpretations can be made by other investigators and that the data do reflect the concepts they are presumed to measure. In appreciating the merits and vast potential of verbal reports, we must also be aware of the potential for misutilization and naive interpretation. In sum, verbal reports as data should receive the same scrutiny as other research observations.

LABORATORY, EXPERIMENTAL RESEARCH: STRENGTHS AND LIMITATIONS

In many ways, experimental laboratory research represents the scientific ideal. Ask people for their description of a scientist, and they are likely to conjure up the image of a person in a white smock in a laboratory, clipboard in hand, noting meter readings of machines or making minor adjustments to a piece of apparatus. The strength of the experimental approach to research is the potential for careful manipulation of the variables of interest, the gathering of objective data free from biased or subjective interpretation, and the establishment of cause-effect relationships. In the experiment that is properly designed and carried out, every step is carefully planned to limit effects to the variables of interest. Few variables are studied, so

that the problem of disentangling complex relationships does not exist. Systematic relationships between changes in some variables and consequences for other variables are established so that the experimenter can say: "If X, then Y." Full details of the experimental procedure are reported so that the results can be replicated by investigators in other laboratories.

Psychologists who are critical of laboratory research

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suggest that too often such research is artificial and limited in relevance to other contexts. The suggestion is that what works in the laboratory may not work elsewhere. Furthermore, although relationships between isolated variables may be established, such relationships may not hold when the complexity of actual human behavior is considered. Also, since laboratory research tends to involve relatively brief exposures to stimuli, such research may miss important processes that occur over time. These criticisms are in addition, of course, to the potential limitation due to the fact that not all phenomena can be produced in the laboratory.

As a human enterprise, experimental research with humans lends itself to influences that are part of everyday interpersonal behavior. The investigation of such influences might be called the social psychology of research. Let us consider two important illustrations. First, there may be factors influencing the behavior of human subjects that are not part of the experimental design. Among

such factors may be cues implicit in the experimental setting that suggest to the subject that the experimenter has a certain hypothesis and, "in the interest of science," the subject behaves in a way that will confirm it. Such effects are known as demand characteristics and suggest that the psychological experiment is a form of social interaction in which subjects give purpose and meaning to things (Orne, 1962; Weber & Cook, 1972). The purpose and meaning given to the research may vary from subject to subject in ways that are not part of the experimental design and thereby serve to reduce both reliability and validity.

Complementing these sources of error or bias in the subject are unintended sources of influence or error in the experimenter. Without realizing it, experimenters may either make errors in recording and analyzing » data or emit cues to the subjects and thus influence their behavior in a particular way. Such unintended experimenter expectancy effects

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may r lead subjects to behave in accordance with the hypothesis (Rosenthal, 1994; Rosenthal & Rubin, 1978). For example, consider the classic case of Clever Hans (Pfungst, 1911). Hans was a horse that by tapping his foot could add, subtract, multiply, and divide. A mathematical problem would be presented to the horse and, incredibly, he was able to come up with the answer. In attempting to discover the secret of Hans' talents, a variety of situational factors were manipulated. If Hans could not see the questioner or if the

questioner did not know the answer, Hans was unable to provide the correct answer. On the other hand, if the questioner knew the answer and was visible, Hans could tap out the answer with his foot. Apparently the questioner unknowingly signaled Hans when to start and stop tapping his hoof: The tapping would start when the questioner inclined his head forward, increase in speed when the questioner bent forward more, and stop when the questioner straightened up. As can be seen, experimenter expectancy effects can be quite subtle and neither the researcher nor subject may be aware of their existence.

It should be noted that demand characteristics and expectancy effects can occur as sources of error in all three forms of research. However, they have been considered and studied most often in relation to experimental research. In addition, as noted, experimental research often is seen as most closely approximating the scientific ideal. Therefore, such sources of error are all the more noteworthy in relation to this form of research.

Many of the criticisms of experimental research have been attacked by experimental psychologists. In defending laboratory experiments, the following statements are made: (1) Such research is the proper basis for testing causal hypotheses. The generality of the established relationship is then a subject for further investigation. (2) Some phenomena would never be discovered outside of the laboratory.

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(3) Some phenomena can be studied in the laboratory that would be difficult to study elsewhere (e.g., subjects are given permission to be aggressive in contrast with the often quite strong restraints in natural social settings). (4) There is little empirical support for the contention that subjects typically try to confirm the experimenters hypothesis or for the significance of experimental artifacts more generally. Indeed, many subjects are more negativistic than conforming (Berkowitz & Donnerstein, 1982).

CORRELATIONAL RESEARCH AND QUESTIONNAIRES: STRENGTHS AND LIMITATIONS

As previously noted, many of the strengths and limitations of the correlational approach are the opposite of those of experimental research. On the one hand, there may be the opportunity to study a broader range of variables; on the other, there is less control over the variables. Consider the use of personality questionnaires in correlational research. First, many psychologists would question whether we can accept the subjects' responses to questionnaires as accurate statements of what the subjects feel and do. Second, responses to self-report questionnaires are susceptible to particular biases. Research suggests that subjects often respond to qualities in the questionnaire items other than content, or that they have a consistent tendency to respond in one or another way to a test-a response style.

Two illustrative response style problems can be considered. The first has been called acquiescence and involves the tendency to

agree or disagree with items regardless of their content. For example,

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subjects may have a preference for responses such as "Like" and "Agree" (yea-sayers) or for responses such as "Dislike" and "Disagree" (nay-sayers). The second illustrative potential for bias in response to questionnaires involves the social desirability of the items. Instead of responding to the intended psychological meaning of a test item, a subject may respond to it as suggesting a socially acceptable or a socially desirable personality characteristic.

Another criticism of questionnaire research has to do with its reliance on self-report data and thereby the potential for the problems earlier noted in relation to verbal reports. A recent research report highlights the particular issue of distortion of responses for unconscious reasons, and emphasizes the potential value of clinical judgment as well (Shedler, Mayman, & Manis, 1993). In this research, conducted by psychologists with a psychoanalytic orientation who were skeptical of accepting self-report data at face value, individuals who "looked good" on mental health questionnaire scales were evaluated by a psychodynamically oriented clinician. On the basis of his clinical judgments, two subgroups were distinguished: One defined as being genuinely psychologically healthy in agreement with the questionnaire scales and a second defined as consisting of individuals who were psychologically distressed but who maintained an illusion of mental health through defensive

denial of their difficulties. Individuals in the two groups were found to differ significantly in their responses to stress. Subjects in the illusory mental health group were found to show much higher levels of coronary reactivity to stress than subjects in the genuinely healthy group. Indeed, the former subjects were found to show even greater levels of coronary reactivity to stress than subjects who reported their distress on the mental health questionnaire scales. The differences in reactivity to stress between the genuinely healthy subjects and the "illusory" healthy subjects were considered not only to be statistically significant but medically significant as well. Thus, it was concluded that "for some people, mental health scales

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appear to be legitimate measures of mental health. For other people, these scales appear to measure defensive denial. There seems to be no way to know from the test score alone what is being measured in any given respondent" (Shedler, Mayman, & Manis, 1993, p. 1128).

Those who defend the use of questionnaires suggest that such problems and sources of bias can be eliminated through careful test construction and interpretation. For example, testgivers suggest that questionnaire responses need not be considered as true or accurate reflections of the subjects feelings and behaviors, but only that the resulting scores relate to phenomena of interest. Also, they suggest that by careful item writing, one can remove the potential effects of biases such as acquiescence and social desirability. Finally, they suggest that test items or scales can be included to measure whether

subjects are faking or trying to present themselves in a particularly favorable or socially desirable way.

Although such safeguards may be possible, few of them appear in many personality questionnaires. Furthermore, even when a personality test has reasonable evidence of reliability and validity, its results may disagree with those from another test presumed to measure the same concept. In sum, although personality questionnaires are attractive because they are easy to use and can get at many aspects of personality that would otherwise be difficult to study, the problems in establishing their reliability and validity are often substantial.

SUMMARY OF STRENGTHS AND LIMITATIONS

In assessing these alternative approaches to research we must recognize that we are considering potential, rather than necessary, strengths and limitations (Table 2.1). What it comes down to is that each research effort must be evaluated on its own merits and for its own potential in advancing understanding rather than on some preconceived basis.

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Alternative research procedures can be used in conjunction with one another in any research enterprise. In addition, data from alternative research procedures can be integrated in the pursuit of a more comprehensive theory.

Table 2.1 Summary of Potential Strengths and Limitations of Alternative Research Methods

Potential Strengths	Potential Limitations
CASE STUDIES AND CLINICAL RESEARCH	
1- Avoid the artificiality of laboratory. 2- Study the full complexity of person-environment relationships. 3. Lead to indepth study of individuals	1- Lead to unsystematic observation. 2- Encourage subjective interpretation of data 3- Entangled relationships among Variables.
LABORATORY STUDIES AND EXPERIMENTAL RESEARCH	
1- Manipulates specific variables.	1- Excludes phenomena that

2- Records data objectively. 3- Establishes cause-effect relationships.		cannot be studied in the laboratory. 2- Creates an artificial setting that limits the generality of findings. 3- Fosters demand characteristics and experimenter expectancy effects
QUESTIONNAIRES AND CORRELATION RESEARCH		
1- Study a wide range of variables 2- Study relationships among many variables.		1- Establish relationships that are associational rather than causal. 2- Problems of reliability and validity-of self-report questionnaires.

In the first chapter we considered the nature of personality theory, the effort to systematize what is known and point research in directions toward discovery of what is as yet unknown. In this chapter we began with consideration of the kinds of data obtained by personality psychologists in their research. We then turned to consideration of three traditions of personality research—clinical research, experimental research, and correlational research. Although following divergent paths, the three traditions share the goals of reliability and validity, that is, the goals of obtaining replicable findings that expand knowledge and can be set within a theoretical context. Until now we have considered theory and research separately. However, what is being emphasized here is that theory and research have important implications for one another. Theory suggests avenues for exploration and research provides means for testing hypotheses derived from theories. Theory that is not tied to research consists of mere speculation and research unrelated to theory consists of mere fact-gathering. Theory and research are interdependent, deriving much of their significance from one another.

Having emphasized the interdependent nature of theory and research, we also want to suggest that they tend to be related in another way. Earlier in the chapter it was suggested that personality researchers have preferences for one or another kind of data. In addition, researchers have preferences and biases concerning how research should be conducted. The father of American behaviorism,

John B. Watson, emphasized the use of animals in research in part because of his discomfort in working with humans. On the other hand, undoubtedly the opposite

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is true for other researchers. Historically, personality researchers have tended to fall on one or the other side of three issues associated with the three approaches to research: (1) "making things happen" in research (experimental) versus "studying what has occurred" (correlational); (2) all persons (experimental) versus the single individual (clinical); and (3) one aspect or few aspects of the person versus the total individual. In other words, there are preferences or biases toward clinical, experimental, and correlational research. Despite the objectivity of science, research is a human enterprise and such preferences are part of research as a human enterprise. All researchers attempt to be as objective as possible in the conduct of their research and generally they give "objective" reasons for following a particular approach to research. That is, the particular strengths of the research approach followed are emphasized relative to the strengths and limitations of alternative approaches. Beyond this, however, a personal element enters in. Just as psychologists feel more comfortable with one or another kind of data, they feel more comfortable with one or another approach to research.

Further, it can be suggested that different theories of personality are linked with different research strategies and thereby with different kinds of data. In other words, the links among theory,

data, and research are such that the observations associated with one theory of personality often are different from those associated with another theory. And, the phenomena of interest to one theory of personality are not as easily studied by the research procedures useful in the study of phenomena emphasized by another theory of personality. One personality theory leads us to obtain one kind of data and follow one approach to research whereas another theory

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leads us to collect different kinds of data and follow another approach to research. It is not that one or another is better but rather that they are different, and these differences must be appreciated in considering each approach to theory and research. Since the remaining chapters in this text are organized around the major theoretical approaches to personality, it is important to keep such linkages and differences in mind in comparing one theory with another.

As we have seen, personality research involves the effort to measure individuals on a personality characteristic assumed to be of theoretical importance. The term assessment generally is used to refer to efforts to measure personality aspects of individuals in order to make an applied or practical decision: Will this person be a good candidate for this job? Will this person profit from one or another kind of treatment? Is this person a good candidate for this training program? In addition, the term assessment often is used to refer to the effort to arrive at a comprehensive understanding of individuals by obtaining a wide variety of information about them. In this sense,

assessment of a person involves administering a variety of personality tests or measures in the pursuit of a comprehensive understanding of their personality. As noted, such an effort also provides for a comparison of results from different sources of information. This book assumes that each technique of assessment gives a glimpse of human behavior, and that no one test gives, or can hope to give, a picture of the total personality of an individual. People are complex, and our efforts to assess personality must reflect this complexity. In the chapters that follow, we will consider a number of theories of personality and approaches to personality assessment. In addition, we will consider the assessment of an individual, Jim, from the standpoint of each theory and approach to assessment. Through this approach we will be able to see

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the relation between theory and assessment, and also to consider the extent to which different approaches result in similar pictures of the person.

Before we describe Jim, some details concerning the assessment project will be presented. Jim was a college student when, in the late 1960s, he volunteered to serve as a subject for a project involving the intensive study of college students. He participated in the project mainly because of his interest in psychology, but also because he hoped to gain a better understanding of himself. At the time, a variety of tests were administered to him. These tests represented a sampling of the tests then available.

Review

1. Research involves the systematic study of relationships among phenomena or events. Four types of data are obtained in personality research: L-data, 0-data, T-data, and S-data (LOTS). Three approaches to personality research are clinical research, laboratory experimentation, and correlational research using questionnaires.

2. All research shares the goals of reliability and validity—of obtaining observations that can be replicated and for which there is evidence of a relation to the concepts of interest. As a human enterprise, research involves ethical questions concerning the treatment of subjects and the reporting of data.

3. Clinical research involves the intensive study of individuals and is illustrated by the study of reactions to battle stress.

4. Experimental research involves the manipulation of specific variables and the ability to state if-then, causal relationships. This approach to research is illustrated by the study of the effects of learned helplessness.

5. In correlational research the investigator gives up control over the variables of interest and tries to associate or correlate already existing phenomena with one another. Questionnaires are particularly important in correlational research, as illustrated by research with the I-E Scale and the ASQ.

6. According to the reformulated model of learned helplessness, people make causal attributions for events along dimensions such as internal-external, global-specific, and stable-unstable. Specific

attributional or explanatory styles are suggested to be associated with specific consequences (e.g., internal, global, stable attributions or explanations for negative events associated with depression).

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7. The three approaches to research result in similar observations concerning the relation between lack of control or helplessness and stress. The expectation that outcomes are independent of responses (external locus of control, learned helplessness) has significant motivational, cognitive, and emotional implications.

8. Each of the three approaches to research can be viewed as having its own set of potential strengths and limitations (Table 2.1). Thus, each research strategy has the potential to produce particular insights and pitfalls.

9. Theories of personality differ in their preferences for types of data and approaches to research. In other words, there tend to be linkages among theory, type of data, and method of research. It is important to keep such linkages in mind as the major theories of personality are considered in the chapters that follow. A single case studied from the standpoint of each theoretical perspective also will be presented for illustrative and comparative purposes**.**