

Developments in Business Simulation & Experiential Exercises, Volume 12, 1985

FACTORS INFLUENCING PERCEPTION: GAINING UNDERSTANDING THROUGH EXPERIENCE

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ABSTRACT

Within the broad framework of perceptual selectivity and perceptual organization fall numerous general factors related to what one perceives. This paper presents an experiential exercise through which one can gain exposure to seven of the more significant of these general factors. The perceptual factors introduced in this exercise include: response disposition, feelings toward the subject or object, response salience, intensity of the stimulus, motion, size of the object, and the impact of the physical environment on perception.

INTRODUCTION

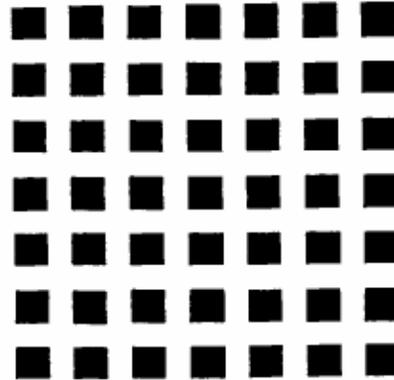
Two basic components appear to have a significant bearing on what one perceives. First, perception is selective. Some information is processed, some is not. A good example of this selectivity or screening is the disturbing ticking of a clock as one is trying to fall asleep. While the noise (ticking) is constant throughout the day, one only notices it at the brief time preceding sleep. Second, information that is processed must be ordered and categorized in some fashion that allows the individual to ascribe meaning to the selected stimulus information. This phenomenon is called perceptual organization. As one looks at Exhibit 1 below one can count 49 black squares) However, most individuals do not simply see them as 49 separate and distinct squares.¹ One normally sees all of them together as fitting into some sort of organized pattern. From an initial examination of Exhibit 1, one may perceive the figure as consisting of seven rows or seven columns of black squares. Yet, in looking further, one may perceive them as being organized into larger squares, each consisting of four or line black squares. Even further examination may cause one to see the figure as central lines of squares standing out as a large cross. When one perceives complex forms of stimulation, the human organism automatically organizes their features in some way.

Within the broad framework of selectivity and organization fall numerous general factors related to what one perceives.² The exercises that follow are designed to introduce participants to the more common of these factors. Each exercise will exemplify at least one important perceptual factor. A minimum of an hour and fifteen minutes is needed to complete all eight exercises. There are no limits on group or class size, it can be used effectively in very small or very large groups.

¹ This example of perceptual organization was developed by Howard H. Kendler, Basic Psychology (New York: Appleton-Century Crofts, 1963), p. 184.

² This exercise utilizes the general framework provided by W. G. Scott and T. R. Mitchell, Organization Theory: A Structural and Behavioral Analysis (Homewood, Illinois: Richard D. Irwin, Inc., 1976), pp. 84-86.

EXHIBIT 1
FORTY-NINE BLACK SQUARES



EXERCISE 1

In Exercise 1 you will be asked to utilize your perceptual apparatus. For most of us that means utilizing the five senses of sight, smell, hearing, touch and taste. There is also increasing evidence to suggest that some individuals have a psychic sixth sense. However, since we all do not appear to possess or have a developed sixth sense, this and other exercises in this perceptual experience will concentrate on the five more commonly utilized senses.

- Jot down what you initially perceived upon entering the classroom today (this is called "formalizing your perceptions").
- What perceptual principle(s) can be developed from the perceptual experience you encountered upon entering the classroom today?
- Identify two of three examples of how this perceptual phenomenon could come to bear in a business setting i.e. how it might impact on employees or managers in business organization).

INSTRUCTOR'S NOTES--EXERCISE 1

Exercise 1 was designed to familiarize students with the perceptual factor called stimulus intensity--the more intense the stimulus (bright lights, pungent odors, and loud noises) the higher the probability that it will be noticed or perceived. Since the instructor will probably want to initiate this perceptual exercise as participants enter the classroom, participants should be asked to read the introductory material up to "Part a" of Exercise 1 prior to coming to class.

a. Materials needed:

- A bottle of household ammonia and a towel.

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2. A radio (or other auditory device that students normally would not expect to hear in the classroom setting--cymbals, gong, cowbell, etc.).
 3. An overhead projector (or other lighting device with an intense light such as a strobe light).
- b. Room setting:
1. Place a note on the cloud classroom door asking participants to remain outside of the room until directed to enter.
 2. Position the overhead projector so that the projector beam will be directed into the eyes of entering participants (in a location in which it can easily be switched on when the order to enter the room is given).
 3. Position the radio so that it can also be turned on (volume up) just previous to participants entering the room.
 4. Just previous to giving the order for participants to enter the room, pour a generous amount of ammonia onto the towel and wave it in the air near the room entrance.
 5. Switch on the projector and radio.
- c. Procedure:
1. Ask participants to enter the room. As soon as all are seated, turn off the light and radio and ask participants to complete "part a" of the exercise (to formalize perceptions).
 2. Ask participants to complete "part b" of the exercise (to develop perceptual principles). The instructor may wish to break the class into small discussion groups and/or conduct a general class discussion on the perceptual principle(s) that can be developed (of course, stimulus intensity should be most obvious). It is not necessary that the group learn the correct title of the perceptual phenomenon (principle) at this time; participants will have the opportunity to master the terminology as they complete Exercise 8.
 3. Assign "part c" of the exercise. Break the class into discussion groups and/or conduct a general class discussion on how this perceptual phenomenon could come to bear in the business setting (how might it or how does it impact on employees and managers).
- d. Business Examples--numerous good examples should be readily identifiable. For example, when a fire alarm is set off (intense noise), it immediately enters the consciousness of employees and signals them to leave their work stations for a safer place. A loud buzzer or bell may be used to signify the beginning or end of work or rest periods. The pungent odor of propane gas in an area of the plant or office signals to employees that there may be a gas leak and triggers exit behavior and corrective action. Brightly colored signs with boldly printed words such as "NO SMOKING," "FIRE EXTINGUISHER," and "WARNING" are used to catch the attention of employees. Undoubtedly, there are many other examples that can be generated by participant groups.

EXERCISE 2

In Exercise 2 you will be asked to pair up and work with a fellow classmate. Once your instructor has paired up members of the class, member A of each dyad will be directed to examine a specified exhibit while member B is being asked to examine a different exhibit. After utilizing your best perceptual skills for three minutes, conceal the exhibit you have been examining. Do not look at it again until instructed to do so. At no time should you allow your partner to view your exhibit unless directed to do so by the instructor. Listen carefully to your instructor for other detailed directions.

- a. Formalized perceptions:
 1. When instructed to do so, jot down your initial perceptions concentrating on the age of the person in the figure.
 2. After discussions with your partner have been completed, jot down your summative perceptions.
- b. Perceptual principle(s)--what perceptual principle(s) can be developed from your personal experience or the collective experience of the group?
- c. Business examples--identify two or three examples of how this perceptual phenomenon could come to bear in a business setting.

INSTRUCTOR'S NOTES: EXERCISE 2

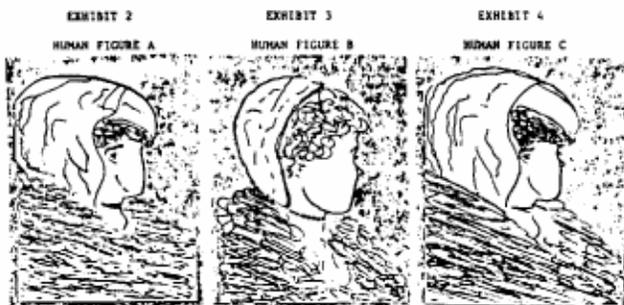
This second exercise is one designed to exemplify the phenomenon of response disposition--people tend to perceive familiar stimuli more quickly (readily) than unfamiliar stimuli [1].

- a. Procedure:
 1. Break the class into dyads.
 2. Ask one member of each dyad to look at Exhibit 2; at the same time, instruct the other member to examine Exhibit 3. Suggest that all participants especially concentrate on the age of the person in their respective exhibit. Instruct participants to conceal their exhibit from other members of the class.³
 3. After three minutes have passed, ask all to conceal their respective exhibit so that neither they nor other members of the class can see it.
 4. Ask each member to jot down what they perceived from an examination of their respective exhibit ("part 1" under "section a" of the exercise).

³ Exhibits 2 through 4 were originally developed as examples of perceptual learning. Psychologists call the ambiguous drawing in Exhibit 4 the "wife and mother-in-law." The figures originally appeared in R. W. Leeper, "A Study of a Neglected Portion of the Field of Learning: The Development of Sensory Organization," Journal of Genetic Psychology, Vol. 46, (1935), pp. 41-75.

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5. Direct all members of the group (class) to examine Exhibit 4 (provide one copy of Exhibit 4 to each dyad). Ask each dyad to agree on the age of the individual in Exhibit 4. Even after considerable discussion, many dyads will continue to have little success in reaching agreement on the age of the individual in Exhibit 4. This, of course, is a result of the response disposition perceptual phenomenon (after one formalizes his or her perception of the figure in either Exhibit 2 or 3, it is extremely difficult to see anything other than the original perspective when examining Exhibit 4).
6. After many have been able to see both figures (young and old) in Exhibit 4 or three to five minutes have passed instruct members of each dyad to exchange original exhibits (Exhibits 2 and 3). This will help many participants see the other perspective in the ambiguous figure in Exhibit 4. To assist those participants still having difficulty seeing both perspectives, the instructor may need to point out details such as location of nose, ear, eye, and necklace.
7. Ask participants to formalize their perceptions ("part 2" under "section a" of the exercise).
8. As in the previous exercise, ask participants to complete "part b" of the exercise. The instructor may wish to again break the class into small discussion groups and/or conduct a general discussion on the perceptual principle(s) that can be developed from the perceptual experience participants have just been through. It is hoped that the group will recognize that what each participant examined initially (familiar stimuli) had a significant bearing on what they most quickly (readily) perceived in the ambiguous figure in Exhibit 4. Again, it is not necessary that participants learn the proper term for the principle(s) they formulated; they will have this opportunity in Exercise 8.
9. Assign "part c" of the exercise. Break the class into discussion groups and/or conduct a general discussion on how the "response disposition perceptual phenomenon could come to bear in the business setting.



- b. Business Examples--a manager could incorrectly perceive the rational and reasonable behavior of a subordinate if the manager had to deal recently with a problem resulting from somewhat similar behavior (one must take care not to let familiar stimuli inappropriately color present perceptions). The opposite could also occur; a subordinate could incorrectly perceive the actions of the boss if that subordinate permits his or her perceptions to be colored by an awareness of treatment of a peer under similar

circumstances.

For example, our subordinate's interpretation of what the boss was actually saying can be significantly colored by what he or she knows or thinks was said to a peer for similar behavior (it is possible that what the boss intends as praise could be perceived as a "chewing out" if that is what our subordinate previously observed or thinks he observed for similar behavior).

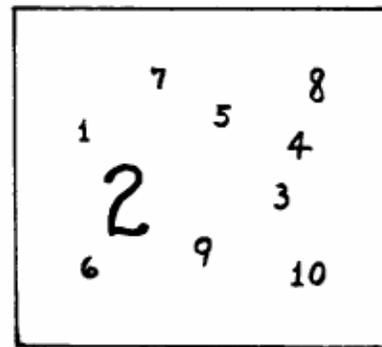
EXERCISE 3

Examine Exhibit 5; what appears to stand out in your mind from your observation?

- a. Formalized perceptions--not down what initially "struck you," as you examined Exhibit 5.
- b. Perceptual principle(s)--what perceptual principle(s) can be developed from your personal experience or the collective observation of the group?
- c. Business examples--identify two or three examples of how this perceptual phenomenon could come to bear in a business setting.

EXHIBIT 5

NUMERALS



INSTRUCTOR'S NOTES: EXERCISE 3

Exercise 3 was designed to exemplify the impact of object size on perception. Large obtrusive objects appear to be perceived more readily than small ones. Participants should easily recognize the "size of object" issue when asked to examine Exhibit 5. The numeral "2" stands out from all other numerals mainly because of numeral size.

Business examples of this principle include the awareness one has of the "bouncer" (that very large person standing at the entrance) when entering that popular night spot. In another example, the large, freestanding bulletin board positioned near the entrance to the plant or office to announce the upcoming safety campaign also catches the attention of or would be perceived by most people entering the building. Again, one's attention was drawn to the bulletin board primarily because of the size of the object. In the bulletin board example just given, novelty (uniqueness) or contrast (stimuli that stand

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out in contrast with the background) may also be factors bringing the bulletin board into consciousness.

EXERCISE 4

Your instructor will direct your attention to a classroom object. Then jot down what you observed (formalizing your perceptions), the perceptual principle(s) that reflect your observations, and two or three related business examples of this perceptual phenomenon.

- a. Formalized perceptions?
- b. Perceptual principle(s)?
- c. business examples?

INSTRUCTOR'S NOTES: EXERCISE 4

Exercise 4 was designed to exemplify the fact that motion is an attention-getter--moving objects tend to be more readily perceived than stationary objects.

- a. Materials needed:
 1. A piece of chalk.
 2. A 12 to 24 inch piece of string or tape.
- b. Room setting--tie one end of the string to the piece of chalk (Or attach one end of the tape to the piece of chalk) and secure the other end of the string to the top of the classroom blackboard (or any other elevated object at the front of the room). While at the front of the room, position the chalk/string in an inconspicuous location (say at the end of the blackboard). This must be done before the class period begins and participants have entered the room.
- c. Procedure:
 1. Since participants have now completed Exercises 1-3, the instructor can spend a minute or so summarizing the perceptual principles developed. The instructor will actually be using the summary as a diversion for his or her true objective. While the instructor is presenting the diversionary summary, he or she will walk casually to the room location where the chalk/string is located and will begin to swing it back and forth. Then comment that "something appears to be distracting you from hearing my summary comments."
 2. Direct participants to Exercise 4. Instruct them to read the preliminary information and then jot down what they had just perceived (part a).
 3. Again, as in the previous three exercises, ask participants to develop the perceptual principle(s) from their observations (in this exercise they should be identifying motion as the principle).
 4. Finally, ask small groups to discuss and/or initiate a general class discussion on business examples of the motion phenomenon.

- d. Business examples--movement can be an attention getter. In advertising one can notice the utilization of this principle. Lighted signs come on sequentially or intermittently to give the appearance of motion. Moving parts are frequently used in store displays. Display panels on machines are even engineered to diminish distracting motions and accentuate important motions.

EXERCISE 5

To put yourself into the proper state of mind for this exercise, read the following scenario; then complete the exercise as directed:

You have just received a telephone call from a witness to an accident in which your mother was involved. STOP A MINUTE--CLOSE YOUR EYES AND PICTURE GOOD OL' MOM, POSSIBLY PINNED UNDER AN OVERTURNED AUTOMOBILE. While the witness does not have many details about the accident, she does know that the accident was the result of some type of traffic violation. Furthermore, the witness mentions overhearing a discussion between two policemen at the scene linking drugs or alcohol to the accident. She indicates that there were some serious injuries and that some of those involved are still pinned in their cars. However, she again does not have enough information to provide details. The witness then identifies the accident location and suggests that you come immediately. The six scenes in Exhibit 6 are what you see as you drive through town to the scene of the accident.

- a. Formalized perceptions? Examine the six scenes in Exhibit 6; what seems most obvious as you make the drive across town to the accident scene?
- b. Perceptual principles?
- c. Business examples?

INSTRUCTORS NOTES: EXERCISE 5

The perceptual principle exemplified in this exercise has to do with the impact that feelings toward a subject or object have on what one perceives--those individuals, concepts or things for which we hold strong feelings are recognized more quickly (readily) than neutral stimuli. If the scenario created the desired state of mind, it is suspected that signs indicating hospital or clinic locations will initially be perceived. Those with strong religious backgrounds may recognize the church. Liquor stores, traffic signs, and traffic signals may also be recognized as potential causes of the accident. The police car (with lights flashing) in the far distance in scene 6 may even be recognized. Students may also identify with makes of automobiles that are the same as that driven by their mother. Again, those things for which one holds strong feelings (positive or negative) are recognized more readily than neutral stimuli. Participants may hold negative feelings toward the liquor store, traffic signs, and traffic signals (potential causes of the accident) and positive feelings toward hospitals, clinics, and churches (institutions generally perceived as providing help).

EXHIBIT 6

SIX STREET SCENES

SCENE A



SCENE D



SCENE B



SCENE E



SCENE C



SCENE F



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Again, there are almost limitless business examples that can be given for the perceptual principle titled “feelings toward the subject or object.” If one had previously submitted suggestions (some having been accepted and rewarded and others turned down), then that individual would be more likely to see (perceive) new suggestion program posters on bulletin boards around the plant or office than an individual that had no previous involvement with this or any suggestion program (in this later situation the suggestion program serves as a neutral stimuli). In another example, the chances are very good that one company rule will “leap out” at a manager as he examines the new company manual, if that individual’s previously untarnished record had been marred due to a lack of awareness of the existence of the rule. Yet, in another example, the chances are good that an employee’s devious behavior will be more readily perceived by a supervisor if that supervisor had previously “pegged” the employee as a trouble maker. In this case, the supervisor’s perception of the employee is significantly colored by the supervisor’s feelings toward the person.

EXERCISE 6

Direct your attention to Exhibit 7. What do you see?

a. Formalized perceptions:

1. Jot down your initial perceptions of Exhibit 7. Concentrate on the degree of appeal of the Italian dinner.

EXHIBIT 7

AN ITALIAN FEAST



2. Now examine Exhibit 8; the table setting is exactly the same as the setting in Exhibit 7. Jot down any changes in your perceptions of Exhibit 7 after examining Exhibit 8.

EXHIBIT 8

AN ITALIAN ???



- b. Perceptual principle(s)--what perceptual principle(s) can be developed from your personal experience or the collective experience of the group?
- c. Business examples--identify two or three examples of how this perceptual phenomenon could come to bear in a business setting.

INSTRUCTOR’S NOTES: EXERCISE 6

Exercise 6 was designed to exemplify the impact that one’s surrounding environment has on what one perceives [4]. The meal in Exhibit 7 probably looked quite appealing to most until one became aware of the setting (physical environment) in which the meal was being served.⁴ It seems likely that the presence of rodents, garbage cans, litter, and trash significantly detracted from the initial appeal of the Italian dinner. How we see things, to a great extent, is determined by the setting (environment) in which the object is perceived.

Business examples of this perceptual factor abound. For example, if the subject is an individual, one’s perception of that individual may very well be colored by the organization and the cleanliness of the individual’s office, by those people that the individual is presently in association with, or even by the absence of certain items that one would expect to see in the environment (i.e., a manager’s office with no desk or chairs). In another example, clothing quality (if other than a brand name with which one is familiar) may be judged by the attractiveness and the cleanliness of the store; even an indirect assessment, such as a cursory evaluation of the dress and general appearance of other store patrons, can have a significant bearing on one’s perception of clothing quality.

⁴ The “environment of perception” can be viewed in two ways. It can be interpreted as the way cultural background (historical environment) affects the way a person sees the world; it can also be interpreted as the impact the present physical environment has on how objects are perceived. The latter of the two interpretations is being applied in this exercise.

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EXERCISE 7

To put yourself in the proper state of mind for this exercise, read the following scenario; then complete the exercise as directed:

You arose at 6:15 a.m. this morning to prepare for a job interview with a prestigious company. You started the day with a cup of coffee and then headed for the library to complete the background research for the upcoming interview. It is now 1:05 p.m. You are very pleased with the progress you have made in preparation for the interview. Yet, you are sensing a hollow feeling that you cannot quite "put your finger on." You get into your car to begin the return drive across town to your apartment. The six scenes in Exhibit 6 are again what you see as you drive through town.

- Formalized perceptions? Once again examine the six scenes in Exhibit 6. What do you initially sense (what seems most pertinent) as you make the drive across town to your residence?
- Perceptual principle(s)?
- Business examples?

INSTRUCTOR'S NOTES: EXERCISE 7

This exercise was designed to familiarize participants with the perceptual factor titled response salience-- present needs and expectations influence what one perceives [31]. Through the scenario in the exercise, an attempt was made to create a felt need for food (i.e., arose early, no breakfast--only one cup of coffee, presently 1:05 p.m., "hollow feeling"). If through the scenario, the felt need was created, then participants will identify (perceive) many of the eating establishments that line the route being traveled. NOTE: the instructor can assist in making this need felt by scheduling Exercise 7 to precede, but as close to meal time as possible (this may necessitate that the order of exercises be changed).

Business examples of this concept are again numerous. Of course, Maslow suggested that unfulfilled needs are motivators [2]. Business examples could be developed for all five need levels (physiological, safety, love or belongingness, esteem, and self-actualization) identified by Maslow. For example, if an individual's esteem needs have not been satisfactorily met, that individual will be more "tuned-in," aware of, or perceive more readily actions taken to give him, or even others, recognition than actions related to, let's say, possibly fulfilled safety needs such as information on the updated company pension plan. Present needs and expectations impact upon what one perceives.

EXERCISE 8

Exhibit 9 is a "Glossary of Perception Terminology." Refer back to the "principles" that you identified in Exercises 1-7. Then identify the term(s) in the glossary that represent the principle(s) you developed:

TERM(S) REPRESENTING IDENTIFIED PERCEPTION PRINCIPLE(S)

- Exercise 1 _____
- Exercise 2 _____
- Exercise 3 _____
- Exercise 4 _____
- Exercise 5 _____
- Exercise 6 _____
- Exercise 7 _____

EXHIBIT 9

GLOSSARY OF PERCEPTION TERMINOLOGY

- Response Disposition--people tend to perceive familiar stimuli more quickly (readily) than unfamiliar stimuli.
- Feelings Toward the Subject or Object--those individuals, concepts, or things for which we hold strong feelings are recognized more quickly than neutral stimuli.
- Response Salience--present needs and expectations influence what one perceives.
- Intensity of the Stimulus--the more intense the stimulus (bright lights, pungent odors, and loud noises), the higher the probability that it will be noticed (perceived).
- Notion--moving objects tend to be more readily perceived than stationary objects.
- Size of the Object--large obtrusive objects tend to be perceived more readily than smaller ones.
- Physical Environment--one's surrounding environment relates to what one perceives.

INSTRUCTOR'S NOTES: EXERCISE 8

Each exercise was designed to exemplify primarily one perception principle. These principles were:

- Exercise 1 - Intensity of the Stimulus
- Exercise 2 - Response Disposition
- Exercise 3 - Size of the Object
- Exercise 4 - Notion
- Exercise 5 - Response Salience
- Exercise 6 - Physical Environment of Perception
- Exercise 7 - Feelings Toward the Subject or Object

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