The Lecture Contains:

- Determining Main Effect and Interaction Effect in Experimental Design
- Illustration of a Common Interaction Effect
- Illustration of a Cross-Over Interaction Effect

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Research methods in social psychology

- Experimental and correlational methods are the research methods widely used in social psychology research. after gaining basic understanding about these two methods, we will go into the details of ‘main effect’ and ‘interaction effect’ as elements of experimental method. Finally, we will try to learn the methodology adopted in the social constructionist paradigm of social psychology.

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Experimental and correlational methods

- Experimental Method : Experimental method is applied to find out the impact of a variable (known as 'independent variable'; e.g., frustration) on another variable (known as 'dependent variable'; e.g., aggression). With the help of an experiment, for example, the researcher attempts to find out whether frustration, the independent variable (IV) has an impact on aggression, the dependent variable (DV). The group of participants in which the IV is induced is known as experimental group and the other group where no IV is induced is known as control group. In may lectures to follow, we will find illustrative examples of how experimental method has been utilized in social psychology research, clearly delineating the IVs, DVs, control group and experimental groups.

- Correlational Method : Correlational method tends to predict the variation that is explained in the DV by the IV. This method is applied when a) systematic variation of IV is not possible. For example, if one is interested in understanding relationship between wellbeing and helping behaviour, then rather than having one or more than experimental group where wellbeing of different levels of it can be induced, scores of the whole sample of participants (without categorizing them into experimental or control groups) on wellbeing and helping behaviour are subjected to correlation analysis.

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Determining Main Effect and Interaction Effect in Experimental Design

Main effect of an independent variable is found out by plotting the mean scores of its levels (e.g. mean of values in each column for IV1 and mean of values in each row for IV2 as given below in Table 1). Interaction effect is found out by plotting the scores in the cells representing data-matrix created by the levels of IVs (here IV1 x IV2).

Table 1

	IV1a	IV1b	Mean (Row)
IV2a	4	10	7
IV2b	5	3	4
Mean (Column)	4.5	6.5	

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Illustration of a Common Interaction Effect

- Following the guideline mentioned above, graphs were plotted utilizing the data from Table 1 to find out main effects and interaction effect.

- The lines in Diagram 1 and 2 are not parallel to x-axis and show the main effect of IV1 and IV2 respectively. Diagram 3 shows the interaction effect as the two lines are intersecting.

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To understand 'common interaction effect',

let us consider the data in

Table 1

	IV1a	IV1b	Mean (Row)
IV2a	4	10	7
IV2b	5	3	4
Mean (Column)	4.5	6.5	

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Diagram 1

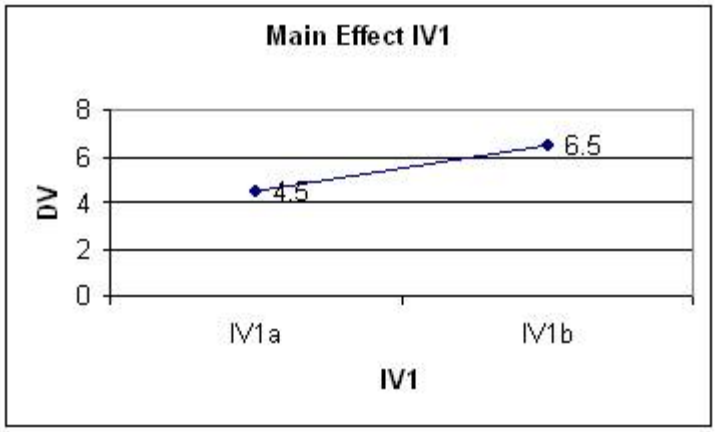

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Diagram 2

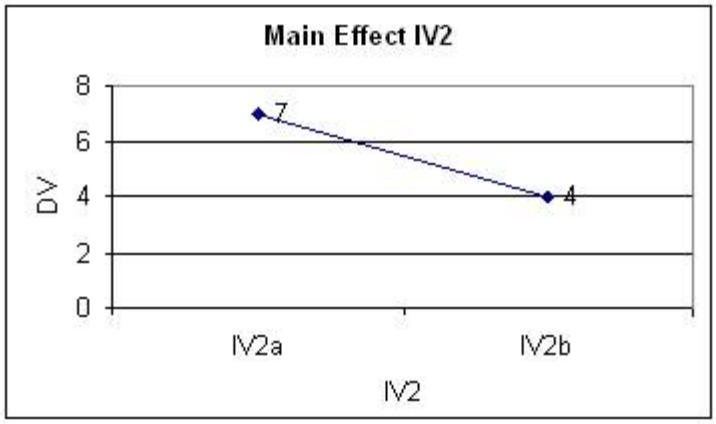

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Diagram 3

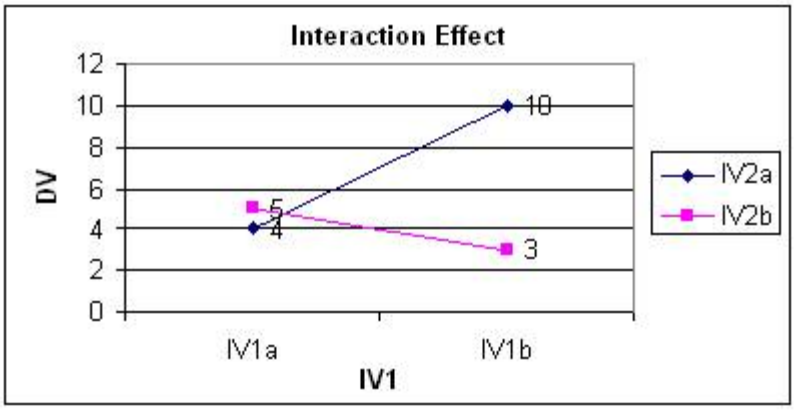

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Illustration of a Cross-Over Interaction Effect

- Following the guideline given above, graphs were plotted utilizing the data from Table 2 to find out main effects and interaction effect.

- The lines in Diagram 4 and 5 are parallel to x-axis and thus, do not show the main effect of IV1 and IV2 respectively. Diagram 6 shows the interaction effect as the two lines are intersecting.

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To understand 'common interaction effect',

let us consider the data in

Table 2

	IV1a	IV1b	Mean (Row)
IV2a	6	2	4
IV2b	2	6	4
Mean (Column)	4	4	

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Diagram 4

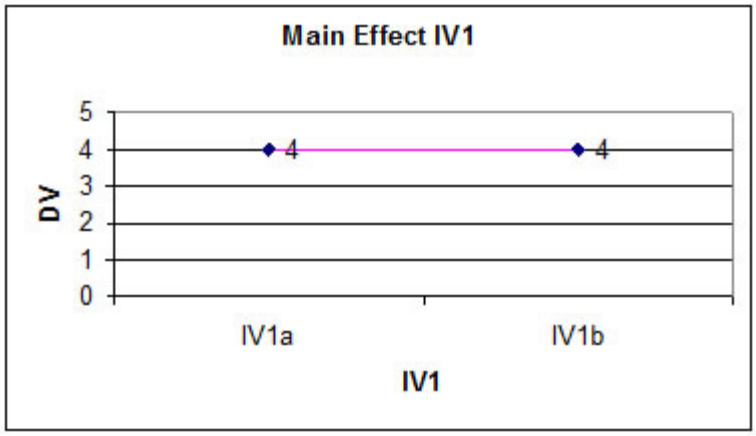

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Diagram 5

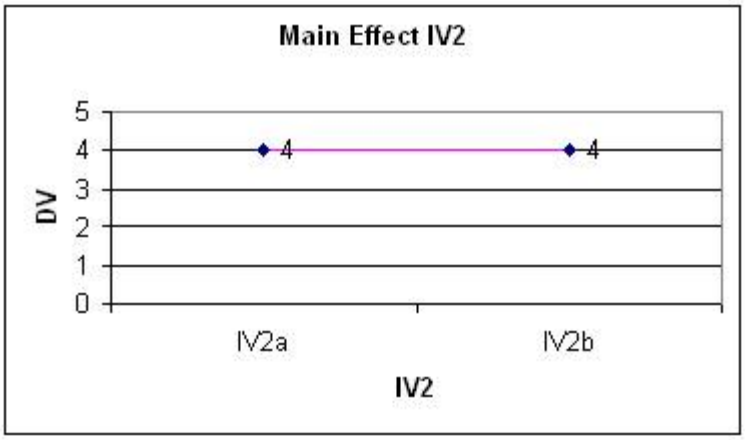

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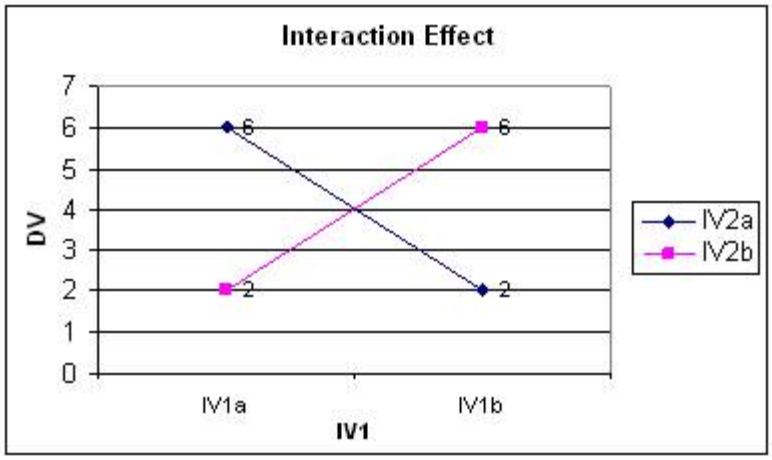
Diagram 6



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