Introduction to Psychology
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Lecture – 08
Perception Gestalt Principles

Till now, we have talked about what you call extraction of image from the background depending on one, the properties of the external stimuli, two, the readiness of the person who is trying to perceive the object and three,what we were talking now towards the end of the third lecture was the idea of drawing controvert, so that the image can very easily be extracted out from the background.

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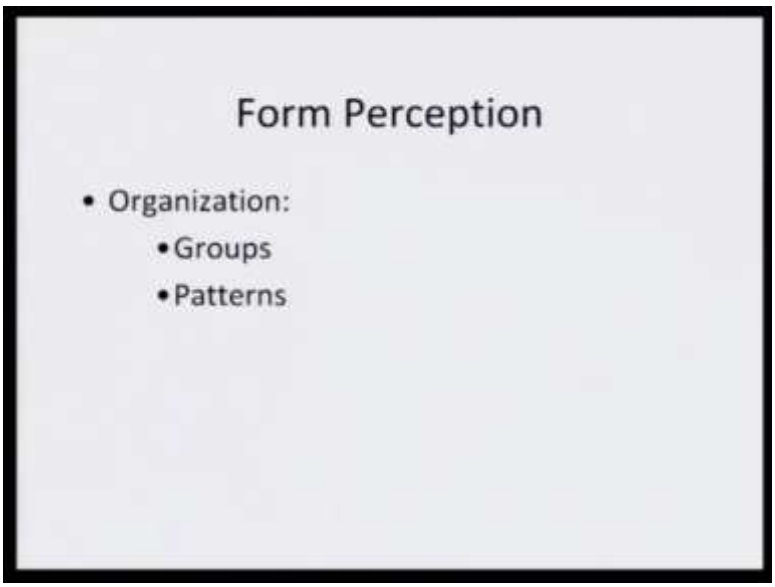

So, today we would be talking about Form perception. Wherein we would try to emphasize on the organization of form, how groups and patterns they emerge.

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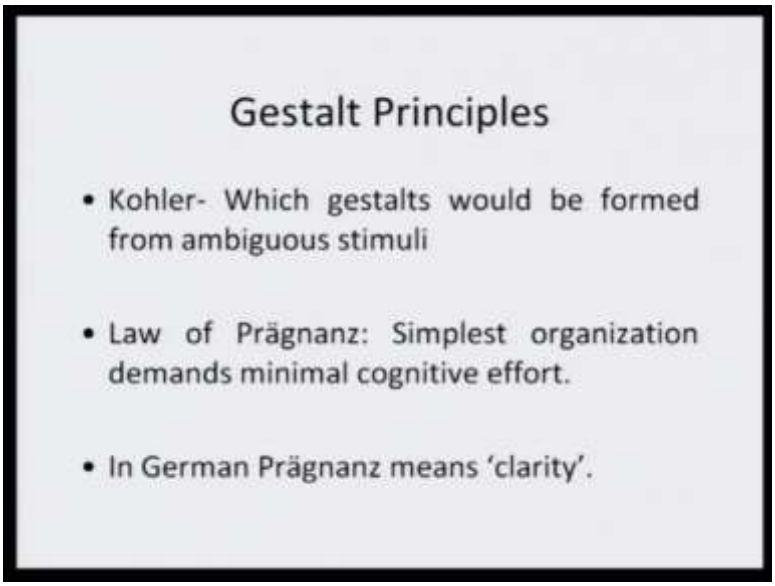

And in this context we would be talking about the Gestalt Principles. Gestalt basically means whole, complete. According to Kohler, Gestalt would be basically formed from ambiguous stimuli.

So, how you try to complete your perception, based on whatever is available to you,that is that holistic part of the percept is the Gestalt Principle. The core principle is called the law of Pragnanz and then there are whole set of laws which are considered as part of Gestalt Principles. Now law of Pragnanz basically says that the simplest organization is one that demands minimum cognitive efforts. In German Pragnanz means clarity. So, those cues in the external environment that does not required too much of mental effort from your side, in order to decipher the figure from the back ground. Those knob organizations basically would constitute law of Pragnanz.

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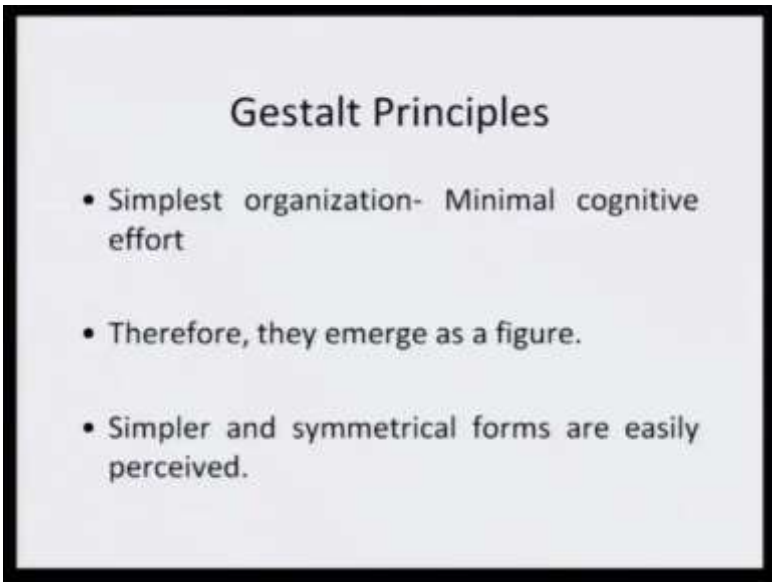

So, that basically means that as human beings we would also always like, to minimize her cognitive engagement in terms of deciphering the image from the back ground. So, simplest organizations would always require a minimum cognitive effort and therefore, minimum time, minimum effort, best type of mental representation that you derive from external environment this is what would be considered as the Principles of Pragnanz. So, simpler and symmetrical forms, these are the two types of forms which are very easily perceived because it is too simple and because it is too symmetrical therefore, you do not have to cognitively engage yourself in too much of know derivation of extraction of cues, derivation of cues, arriving at a conclusion combining them and then finally, deriving a meaning out of it. Hence simpler symmetrical forms will always you perceive very easily by human beings, this what the law of Pragnanzies.

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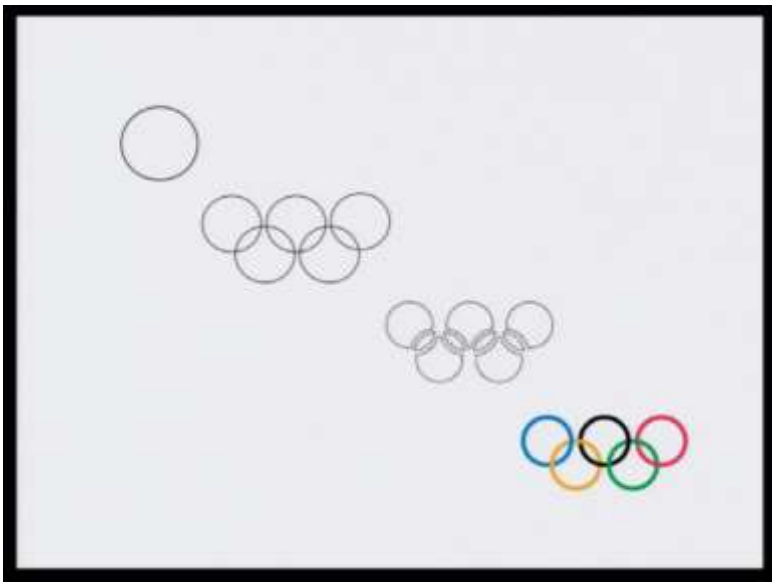

Now, look at this very circle on the screen. You have one circle, the second circle, third, the fourth and the fifth. Now all of them have come one by one and then they form a pattern out of it. Now when you look at this very pattern, you started from the first, came up to the whole now set of five rings. Now look at the third image there, you could have sense is that way also. So, all types of now combinations where you realized there are a small pieces cut out of the two conversing rings there, but then we do not perceive things in such fragmented order, rather we always look at them as a whole,as a complete. You provide various colors of the rings and this is what we call as Olympic rings.

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Now, this is the logo of Rio Olympics, which is scheduled to be held next year and you do not see all these smaller elements, you do not detach them and perceive them separately rather you always perceive them together. So, simpler, symmetrical and this is what the law of Pragnanz says.

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Look at this very logo. You have three distinct components, but they are too simple and also the form is symmetric. Simpler symmetrical this is what the log of Pragnanz and hence when you promote tourism in Norway, you suddenly feel the basic components which define what Norway means, three elements put in a very simpler format, put in a very symmetrical order and this is what law of Pragnanz is. Perception is very easy, deriving sense is very easy, remembering is very easy, cognitive efforts is minimized and then you are also have the best of the outcome that you want.

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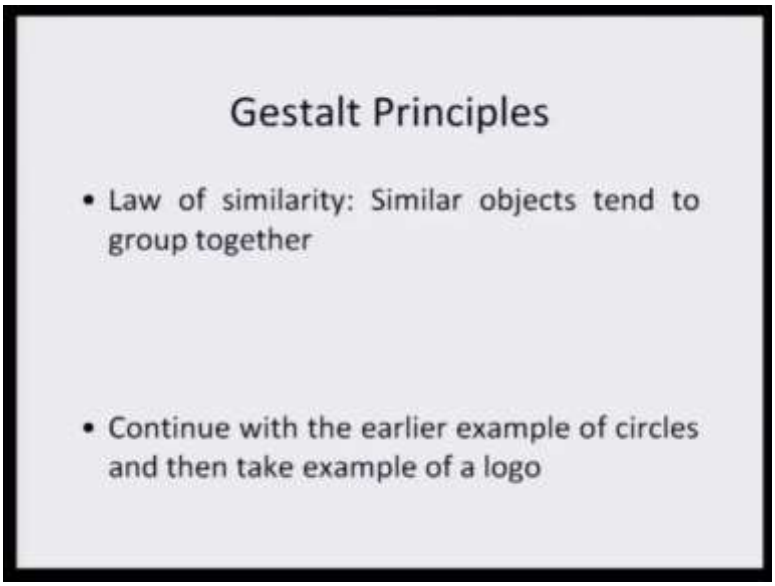

Now, law of Pragnanz is the core of the Gestalt principles and then there are whole other sets of laws. We will talk about them one by one. The second law is the law of symmetry, law of symmetry basically says that similar object that always tends to group together. So, we first in the case of law of Pragnanz we took the example of circles. So, we will continued with the earlier examples of circle and then again now go to the example, which has a logo there. Look at this very video, you find 4 circles there and finally, you have 16 of them now.

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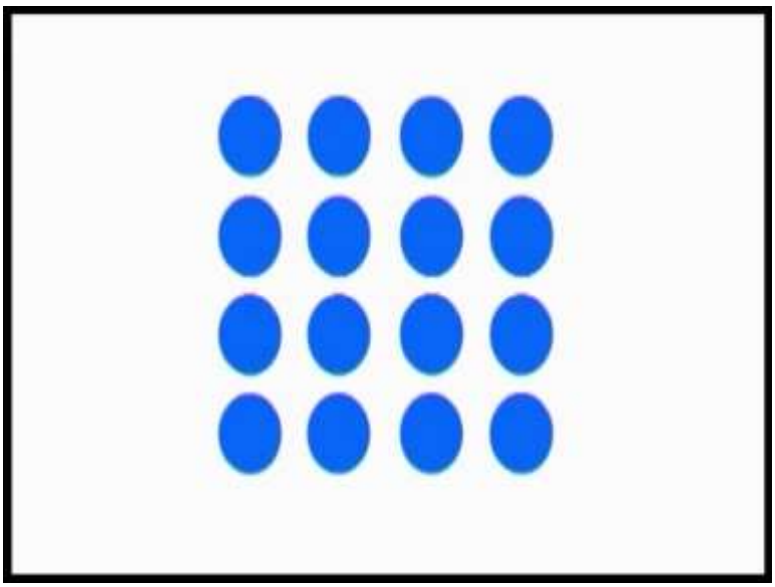

So, although they are independent circles with tend to perceive them as groups. The colorless circles form one group, now while the rows of red circles form another one. Now let us make this situation little more complex, we had just 4 circles, finally leading to 16 circles and we had the red color ones and the colorless circles now. So, this is how we were trying to look at the formation of groups based on similarity. Now if you have some much more complex situation, once again you have a row of 4 colorless circles multiplying into 4 rows. Just as the previous example, the blue circles form a group when all of them become similar, right now with their blue colors the ones which are bigger either horizontally, vertically, or diagonally they tend to form a group.

So, we basically look at the difference and depending on now what you are actually trying to look at, you will always search for certain reason based on which you can form a group.

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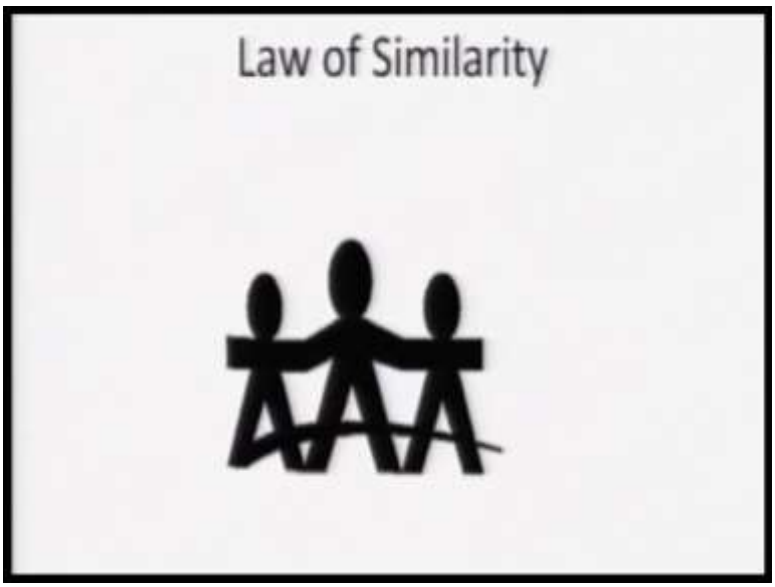

So, that you perceive it better. Look at this very logo, it is very commonly known logo to us and you know actually when you see here, you find law of similarity being used, but we discussed was that similar objects they will tend to come together and here you have now three different representations. All them they tend to group together because they follow the law of similarity.

The next law is the law of Proximity. Proximity means nearness.

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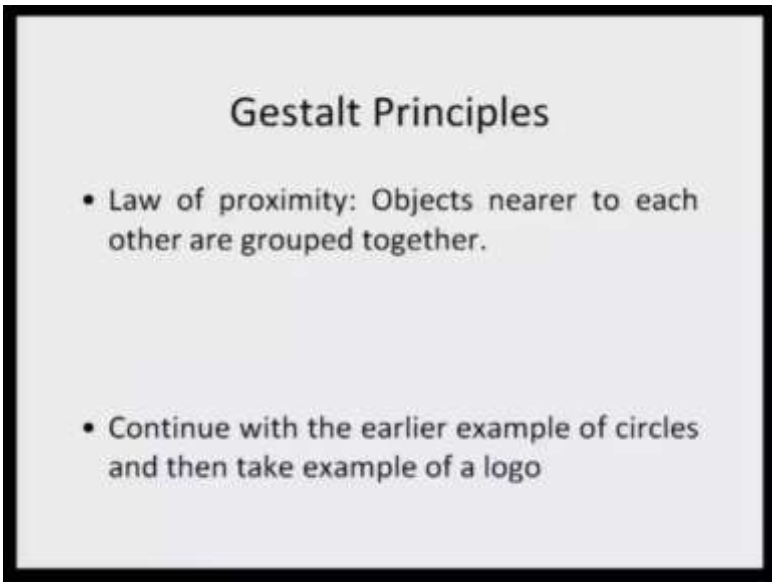

So, objects which are nearer to each other, they always tend to form a group. Once again you will continue with the example of circles and then again take an example of a logo.

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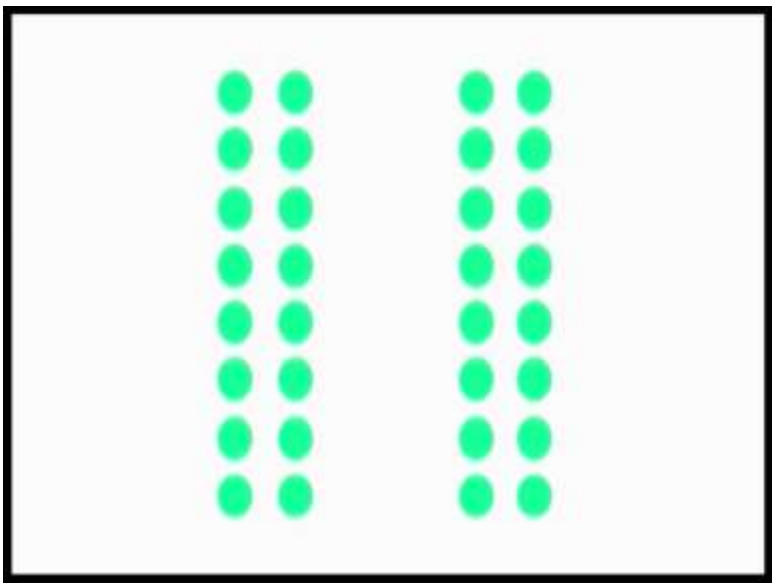

Initially you see 4 columns of green circles, that are equidistance, but when the 2 columns move closer to each other, they tend to move on the 2 ends. They form 2 distinct groups. The first 2 columns form one group, while the remaining two they form another group. So, this is the law of Proximity. Initially they were now seen as a distinct columns because now they were equidistance, but the movement you have a separation

now you see that now you have one column and the other column although color and the size the form remains the same, this is the law of proximity.

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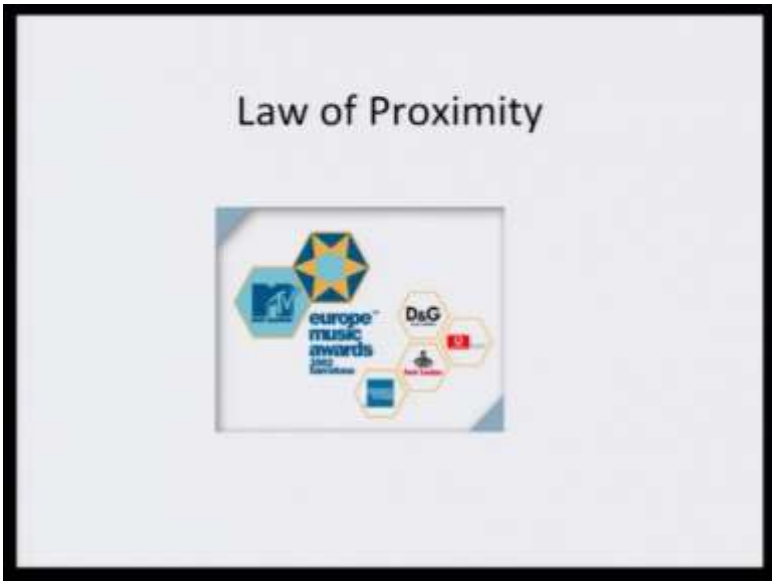

Now, look at this very logo. Here you have no structures, which basically forms honeycomb, but then they very easily because they are nearer to each other, you can very easily consider that they form one group and you advertise for a particular event along with the sponsors the major sponsors of the event. This is how law of proximity is beautifully utilized in the world of usual communication.

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Look at this very still image from Beijing Olympics. Now here what you find, is that there are whole lot of arrangements and then you have when you look at this very image, you look at things little differently. Now this very segment, they tend to form one group, this very segment tend to form one group, this segment forms another group and this is how you have different types of the representations here, where although the bigger screen carries now whole lot of things. When we look at it we combine separate parts together, and then we try to sign a meaning to the external stimulus that we have been looking at.

Now, law of proximity the way it defines here is that you have things which are closer to each other. So, one set of performers are on the left hand side, who are closer to each other and then there is a big distance between the other groups. So, the left and right very easily get divided. Those in the center of course, they have a different color of the costume, but then there are again separated from the these two groups, but then within themselves they are very close to each other, they are very nearer to each other and hence the law of proximity helps us consider that this is group 1, this is group 2, this is group 3, there all very symmetrical, but then because of their nearness to one group compared to the other based on their proximity we consider them to be forming three separate groups.

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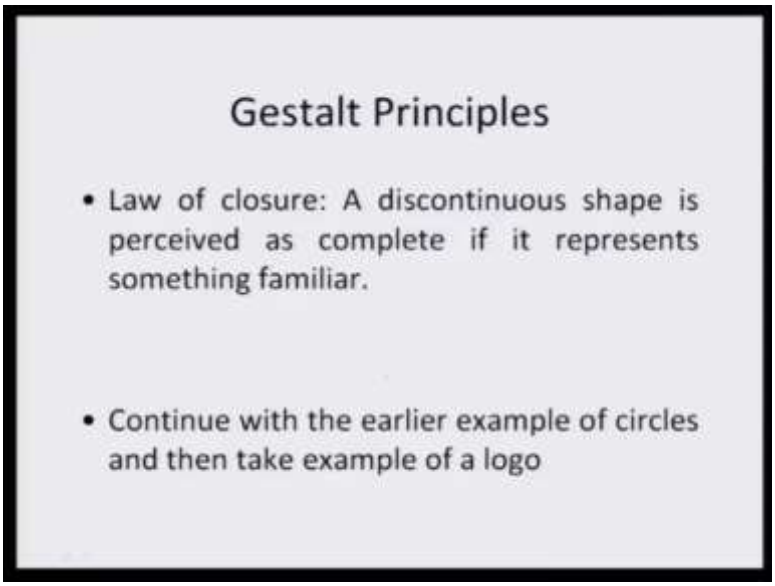

We come to the next law, that is law of Closure. Law of Closure basically says that if you have a discontinuous shape and when you perceive it we always tend to complete it,

and this complete is based on whatever we are familiar with. Let us take this very example, again we are backing on the example circle and then again we will move on to an example of a logo.

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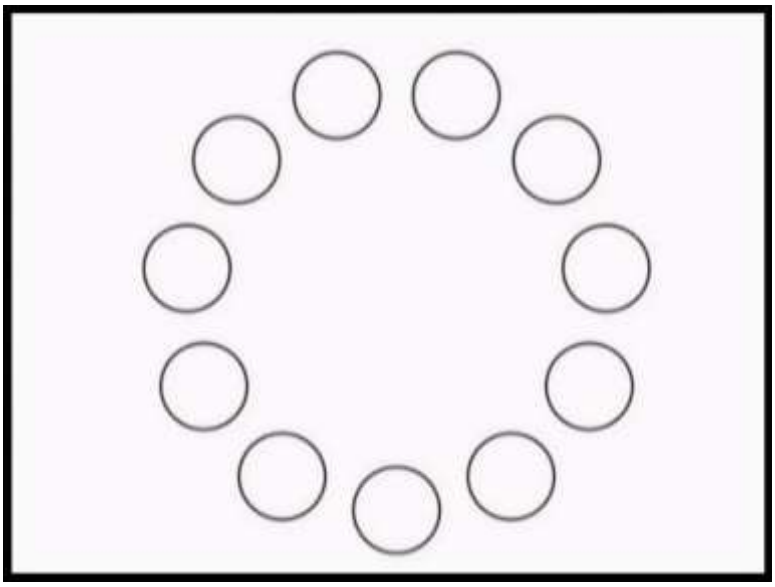

You see a circle right now. Another one and yet another one, although you see 11 different circles, but you perceive them as a ring. Their individual identity is not taken to account. So, this is an important thing here that now when you look at the continuous things. When you look at the patterns that emerge, the discontinuous shapes is perceived as a complete if it represents something very familiar.

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You look at this now famous visual icon. Now this is a logo of WWF. If you visit their site you see this image. Now you see here, here I am moving the curser right now, you see WWF. Now you visit their site and you see exactly this very representation. Now when you actually see it you can very easily make out what you are looking at and you see it as panda because their gap that you see you try to know close it you try to fill it and therefore this is not no looked upon as you know some black filled areas against white background, but rather it is looked upon as an animal.

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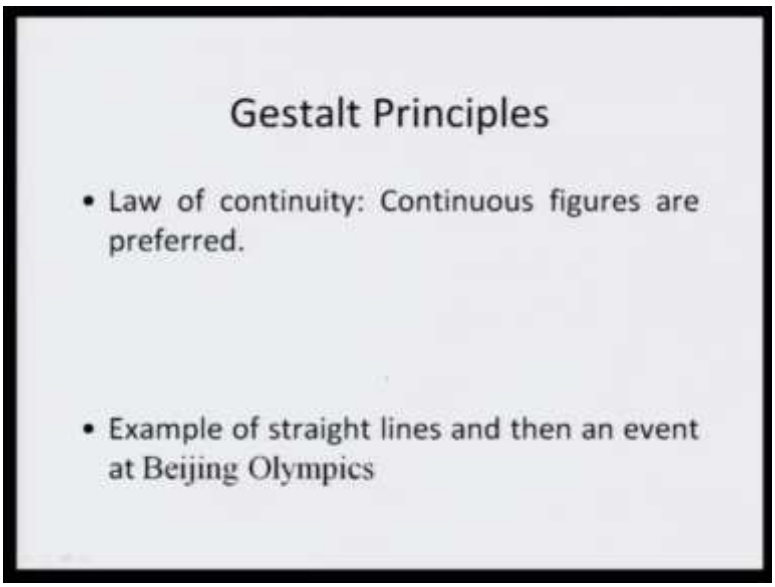

We come to the next law that is the law of Continuity. Law of continuity basically says that continuous figures are always preferred. Now till now we were repeatedly taking examples of circles, now let us take example of straight lines and then we will look at one of the events from Beijing Olympics to understand law of continuity. The law of continuity says that the continuous figures are preferred by us. So, something that runs in continuation.

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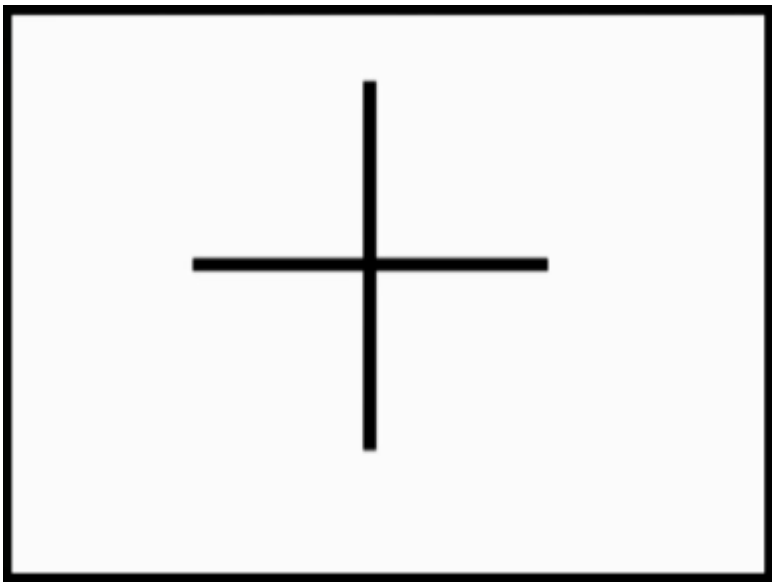

You can see a bold straight line entering from the left side of the screen. Now another one enters from the right side. Although they are two separate lines as you initially saw, but when they join, you see them as one straight line. When two more straight lines enter from top and bottom respectively, you perceive an x-y coordinate. When two of these lines become red, green, blue or yellow they are perceived as one continuous figure. When they are all back you perceive them as x-y coordinate.

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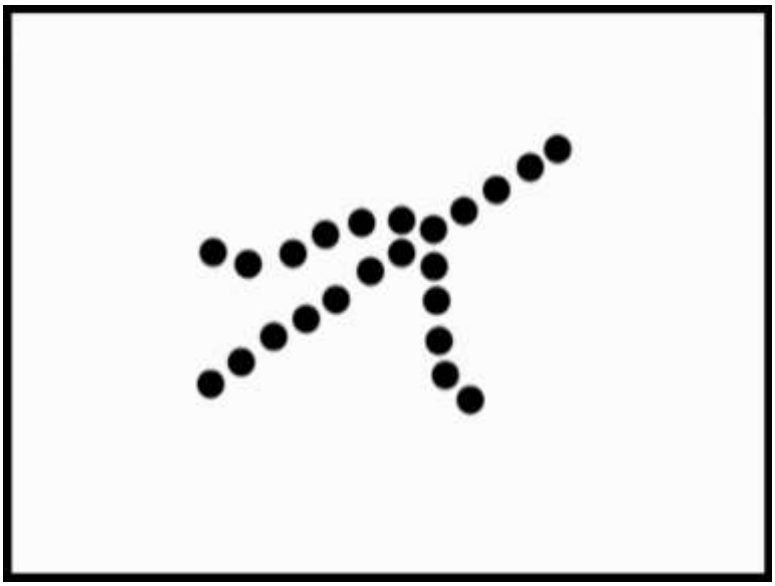

Let us look at another example of law of continuity; here you see dark black circles appearing on the screen. These circles are perceived as collective unit because they share a common feature of direction. Now initially use look at it as straight line and the movement is now the other line, the curve one comes there, you perceive it differently. You see as if it represents some type of direction.

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If you visit now Indigo Airline, this is one of the airlines that you must have certainly seen here. When you look at their logo, actually you see what now you saw here. Now

when you look here, now look at your screen this very part where I am moving the curser. You actually see this law of continuity. This image although this is a collection of dot something that you saw right now in this animation, but the movement you see here now it gives a direction and it now makes you feel and fine, you are actually looking at something usual representation of airline.

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Now, let us look at this video you see have the law of continuation working.

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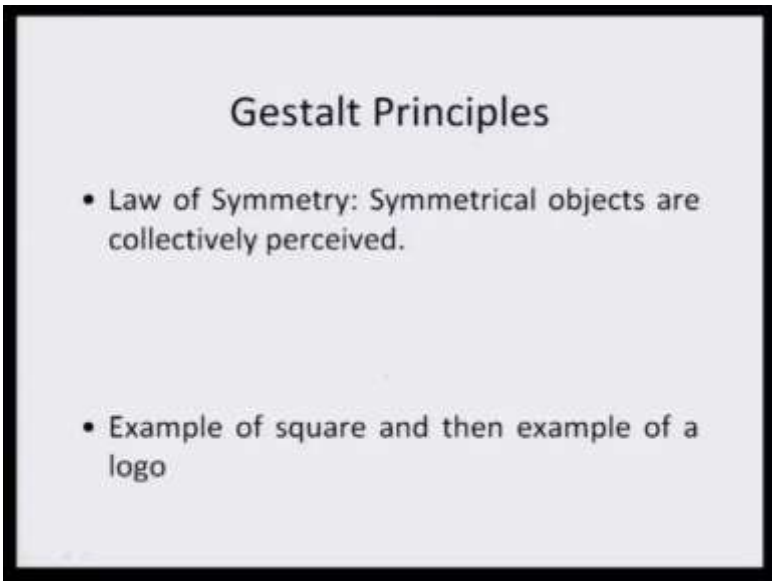

The next gestalt principle is law of Symmetry. We have been talking about symmetrical objects now, right from we began with our discussion on Pragnanz. Now law of symmetry says that symmetrical objects they will always be collectively perceived. Let us take the example of these squares and then we will also move to an example taking again a logo into account.

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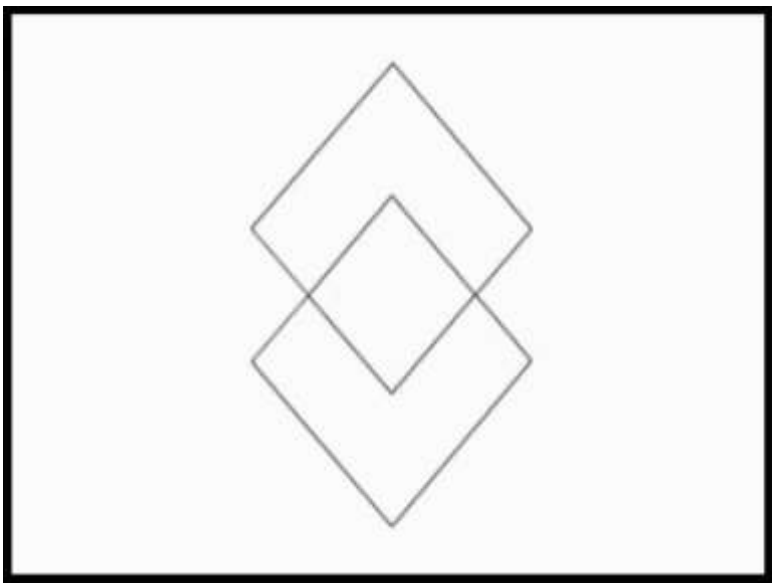

Look at this sky blue square and the blue square dropping out of it. This overlap helps you see another square. Let us look at these squares without any color. We will perceive them as two squares. When the top and the bottom parts are removed we clearly see a small square, but when they are brought back, we perceive two big squares overlaying each other. This demonstrates that in spite of distance symmetrical objects are collectively perceived.

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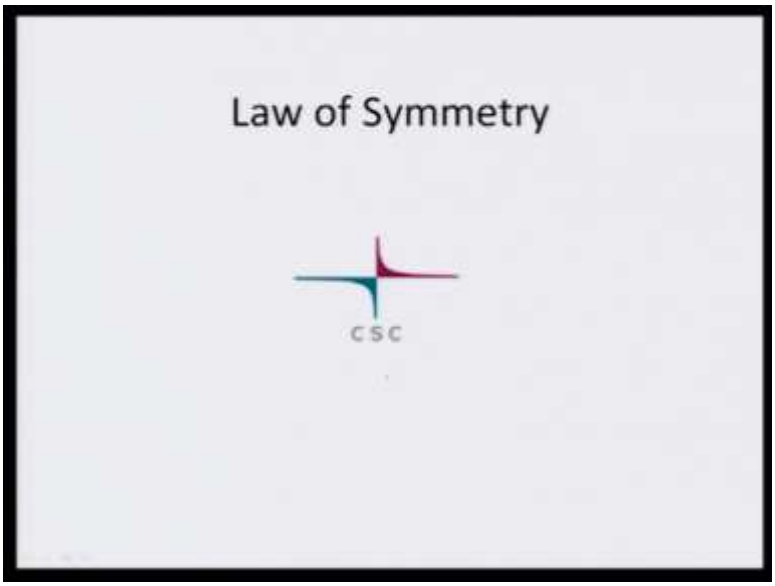

This is the logo of CSC which basically shows you how beautifully the law of symmetry can be used to, represent usually, represent one of the forms.

The next law of gestalt principle is the Law of Common fate. Law of common fate says that objects which share common features, they are grouped together.

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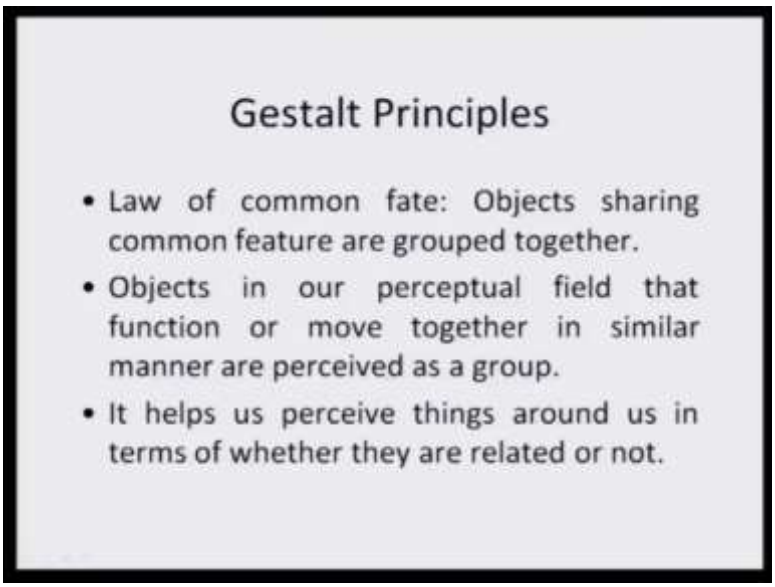

So objects in our perceptual field that function or move together in similar manner, they will always be perceive together. Now what is the important of this very law basically it helps us perceive things around us in terms of whether they are related or not.

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You must have seen these beautiful images in our Republic Day Parade. Look at this very video, which basically tells you, when different aircrafts which you basically know that these are different aircrafts but when they make a formation, they are then perceived together because they perform similar function, they move together and therefore, even though they are separate aircrafts they are not viewed so.

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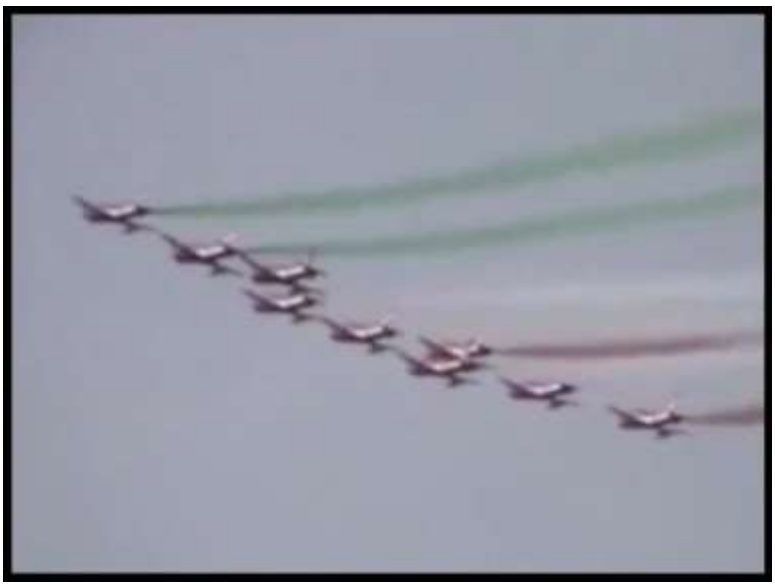

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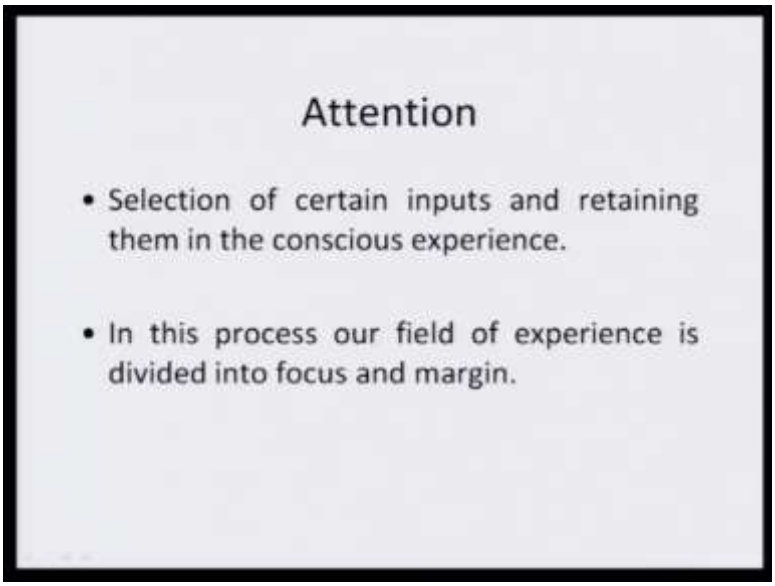

Now, given the fact that based on the quality of their stimuli, based on our individual preparedness and preferences and also based on the laws that govern our perceptual principles, we provide meaning to what we have sensed from the world. Now based on what we have sensed from world and depending on the appropriativeness of the meaning that we have provided ,we many a times tend to select certain inputs and retain them in our conscious experience for little longer period of time. So, what we do, we tend to divide things into what would be in our focus and what we would now keep it on the margin. This is what is called as Attention. Because we have limited duration assigned for this very course. So, we would not go into the details of attention, but I must tell you that in the recommended book if you go through that you will find whole end up description of the process related to attention.