

Lesson 28: Private Stimuli (OA)



This lesson defines and provides examples of private stimulation and discusses the challenge a verbal community faces when trying to teach individuals to respond to their own private stimuli.

≡ Public Stimuli and the Verbal Community

≡ Private Stimuli and the Verbal Community

≡ Definition of Private Stimulus

≡ Nervous System Receptors

≡ Private Stimuli Receptors

≡ Public Stimuli Receptors

≡ Private Stimulus Example #1

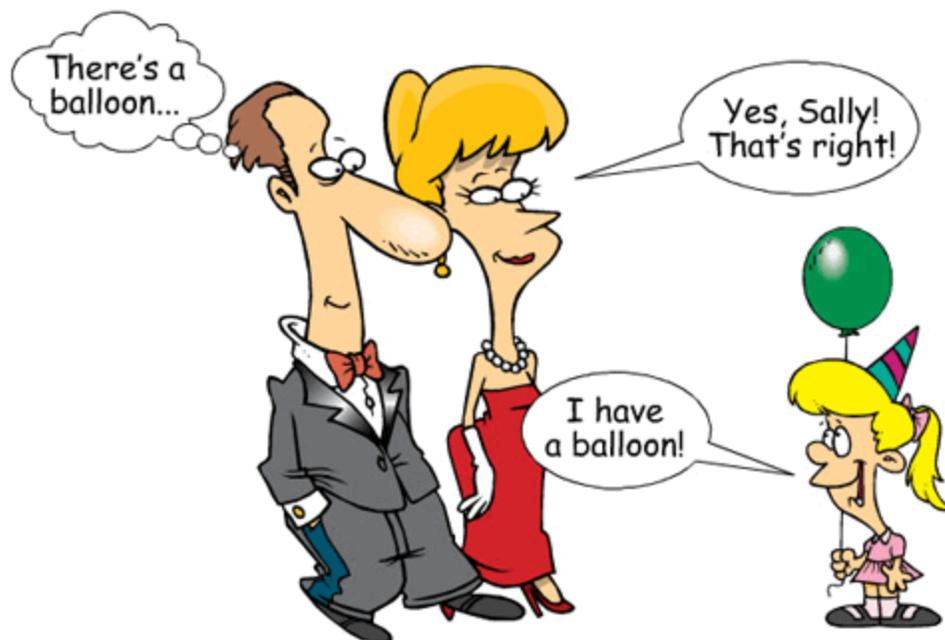
≡ Private Stimulus Non-Example #1

Public Stimuli and the Verbal Community



00:23

Most stimuli are capable of affecting several different people in the same way. This fact allows for the verbal community to differentially reinforce verbal responses when it is training one of its members. If the trainer can also make contact with the stimulus at the same time that the learner does, then the trainer can decide whether or not the learner's response is appropriate to the stimuli present.



Private Stimuli and the Verbal Community



00:35

Training would be much more difficult if the stimuli were present only for the learner, and the trainer had to guess whether or not the appropriate stimuli for a given response were present. Unfortunately for both the verbal community and the individual, this is precisely the problem that must be overcome when the verbal community tries to teach an individual to describe their own **private stimuli**. Only the individual is in contact with the stimuli arising from some event like a toothache. The trainer can only assume or infer that the appropriate stimuli are present when someone says “toothache.”



Definition of Private Stimulus



00:19

This brings us to our definition of **private stimulus**. A private stimulus is a physical energy change capable of affecting a sense organ that affects only one individual; other individuals are not affected. Features irrelevant to the classification of private stimuli include the type of energy change and the function of the stimulus.

Private Stimulus

DEFINING FEATURES

IRRELEVANT FEATURES

| | |
|---|---|
| • | Is a physical energy change |
| • | Is capable of affecting a sense organ |
| • | Affects only one individual; other individuals are not affected |

DEFINING FEATURES

IRRELEVANT FEATURES

| | |
|---|---|
| ● | Type of energy change |
| ● | Function of the stimulus (e.g., reinforcing, discriminative, punishing) |

Nervous System Receptors



Those different parts of the nervous system that are capable of being affected by stimuli are called receptors. That part of the system that is affected by light is called a photoreceptor. The parts that are affected by chemical changes when we taste or smell something are called chemoreceptors. This table shows a list of the types of receptors and the type of stimulus that is capable of affecting each.

| Receptor | Type of Stimulus |
|--|---|
| Photoreceptor | Light |
| Phonoreceptor | Sounds |
| Chemoreceptors (gustatory and olfactory) | Chemicals on the tongue or in the nasal passage |
| Mechanoreceptors: on the surface and within the body | Pressure |

| Receptor | Type of Stimulus |
|--|--|
| Kinesthetic | Movement in the tendons, muscles, and joints |
| Vestibular | Movement of the body in space |
| Thermoreceptors: on the surface and within the body | Heat or lack of it |
| Free nerve endings: on the surface and within the body | Painful stimuli |

Private Stimuli Receptors



00:13

Private stimuli are most often associated with the following types of receptors: free nerve endings, thermoreceptors, and mechanoreceptors (all deep within the body), kinesthetic, and vestibular receptors.

| Receptor | Type of Stimulus |
|---|---|
| Photoreceptor | Light |
| Phonoreceptor | Sounds |
| Chemoreceptors (gustatory and olfactory) | Chemicals on the tongue or in the nasal passage |
| Mechanoreceptors: on the surface and within the body | Pressure |
| Kinesthetic | Movement in the tendons, muscles, and joints |

| Receptor | Type of Stimulus |
|---|-------------------------------|
| Vestibular | Movement of the body in space |
| Thermoreceptors: on the surface and within the body | Heat or lack of it |
| Free nerve endings: on the surface and within the body | Painful stimuli |

Public Stimuli Receptors



00:14

Public stimuli are most often associated with phonoreceptors, photoreceptors, chemoreceptors, and—on or near the surface of the skin—mechanoreceptors, thermoreceptors, and free nerve endings.

| Receptor | Type of Stimulus |
|---|---|
| Photoreceptor | Light |
| Phonoreceptor | Sounds |
| Chemoreceptors (gustatory and olfactory) | Chemicals on the tongue or in the nasal passage |
| Mechanoreceptors: on the surface and within the body | Pressure |
| Kinesthetic | Movement in the tendons, muscles, and joints |

| Receptor | Type of Stimulus |
|---|-------------------------------|
| Vestibular | Movement of the body in space |
| Thermoreceptors: on the surface and within the body | Heat or lack of it |
| Free nerve endings: on the surface and within the body | Painful stimuli |

Private Stimulus Example #1



00:07

The pain that results from a toothache is, therefore, a private stimulus, affecting free nerve endings within the body.

Private Stimulus

DEFINING FEATURES

IRRELEVANT FEATURES

| | |
|---|---|
| ✓ | Is a physical energy change |
| ✓ | Is capable of affecting a sense organ |
| ✓ | Affects only one individual; other individuals are not affected |

DEFINING FEATURES

IRRELEVANT FEATURES

| | |
|---|---|
| ● | Type of energy change |
| ● | Function of the stimulus (e.g., reinforcing, discriminative, punishing) |

Private Stimulus Non-Example #1



00:18

The burning sensation produced by a hot stove is the result of a **public stimulus**: the heat radiating from the stove. Other individuals can also be affected by the heat, just as they can be affected by the visual stimulation of the stove or the olfactory stimulation if something is burning on the stove.

Private Stimulus

DEFINING FEATURES

IRRELEVANT FEATURES

| | |
|---|---|
| ✓ | Is a physical energy change |
| ✓ | Is capable of affecting a sense organ |
| ✗ | Affects only one individual; other individuals are not affected |

DEFINING FEATURES

IRRELEVANT FEATURES

| | |
|---|---|
| ● | Type of energy change |
| ● | Function of the stimulus (e.g., reinforcing, discriminative, punishing) |

Review

- It is easier for a **verbal community** to train its members to respond to public stimuli, or stimuli with which the community can also make contact. Teaching appropriate responding to private stimuli is more difficult.
- A **private stimulus** is a physical energy change capable of affecting a sense organ that affects only one individual; other individuals are not affected.
- Features **irrelevant** to the classification of private stimuli include the type of energy change and the function of the stimulus.

End of Lesson