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Mirror Neurons, Theory of Mind and Corruption.

Small Theorical Report.

by
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In this paper we propose an answer for the question: why, sometimes, people don't perceive corruption as a crime? To answer this question we use a neurological and a psychological concept.

Mirror Neurons and Theory of Mind

As humans, we experience our emotions and feelings in first person, but the neuropsychological mechanism known as "mirror neurons" makes possible to simulate emotions and feelings of others. It means that our emotions and feelings are linked with emotions and feelings of others.[1]

When mirror areas in the brain are activated we can understand and simulate in first person the actions, emotions and feelings of others.[1] Because of these areas, the observer's brain acts "as if" it was experiencing the same action or the same feeling perceived.[1] The *insula* is an example of a neural area that links the third and the first person experience. It allows identifying and recognizing the disgust of others. In this way, a perception of disgust causes a first person emotional and physical state.[2,3] The *amygdala* also allows identifying, recognizing and simulating in first person, emotional states of others.[4,5] For this reason, a visual stimuli related with other person's pain is an input for a first person state.[6]

We are always theorizing about emotions and feelings of others.[7] This procedure is known as Theory of other Minds. If we can't construct a theory of other minds, we will suffer a "mental blindness" to emotions and feelings of people around us.[8]

It is important to identify, recognize and simulate in first person, emotional states of others. This allows regulating aggression and rewarding beneficial actions within the specie.

Mirror neurons and Theory of Mind (MN&ToM) allow linking the first and the third person experience. These mechanisms have three characteristics, among others: (i) They are activated when our actions and emotions are directly related with actions and emotions of others, (ii) "others" are organisms or physical systems that are perceived as part of the specie and (iii) "directly related" means that a simple causal relation is established in the perception of the emotions, feelings or actions. These characteristics explain why feelings or emotions are not generated when kicking a rock, but when kicking a person; the person is perceived as part of the specie and the rock is not.

Complex and Simple Causal Relations

Each organism establishes causal relations to understand, manipulate and move in the world.[9,10] Causal relations can be classified as simple or complex. In a simple causal relation, cause and effect are close in space and time. When cause and effect are not close in space and time, the causal relation is complex.

When speaking about emotions and feelings, MN&ToM are usually activated with simple causal relations, for example when we hit someone and immediately that person cries. When this happens, a simple causal relation is established in the perception of pain.

MN&ToM can also act with a less evident causal relation, for example, when we cause damage to someone's property. By hurting someone or causing damage to someone's property, our nervous system can easily identify the victim of our action. A simple causal relation is enough for activating MN&ToM.

In both cases, a victim of the action–person or physical system interpreted as part of the specie- must be identified. If we can't identify a victim, we will not generate empathy feelings, therefore our MN&ToM will not be activated. If there is no a victim identified at the end of the causal relation, MN&ToM will have no activity and the action will not be considered as incorrect or as a crime.

Corruption and complex causal relations

Usually, to identify a victim of a public corruption crime a complex causal relation must be established. This is not the case of a homicide, where an observer or a murderer can easily identify the victim. In a homicide, the action of killing is directly related with feelings and emotions of an identifiable victim-person.

Committing or perceiving a public corruption crime doesn't generate the empathy

feelings that appear when committing or perceiving a homicide or a robbery. When perceiving or committing homicide, a simple causal relation is enough for identifying a victim, but when perceiving or committing a public corruption crime, a complex causal relation must be established for identifying a victim. When seeing someone committing bribe there is no an evident victim.

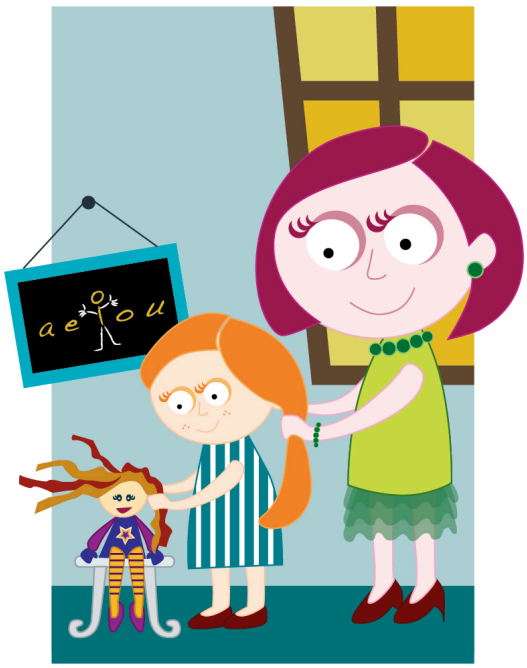
Establishing complex causal relations requires training and systemic thinking. This kind of training can be found in scientists, but in the everyday life, complex causal relations are not usually needed. A regular person in its regular life is not trained for establishing complex causal relations, therefore is not trained for identifying victims of public corruption crimes.

Empathy feelings are easily generated in crimes where identifying a victim requires a simple causal relation, because of the MN&ToM activity. But crimes where identifying a victim requires establishing complex causal relations, will generate empathy feelings only if the observer or the criminal is trained for establishing such causal relations.

If persons can't identify victims of public corruption crimes, then they will not generate empathy feelings. If empathy feelings are not generated, people will not perceive public corruption as a crime or even as an incorrect action. When a victim is not identified and perceived, there is no reason for thinking that harm is being inflicted. If it is thought that committing a public corruption crime means hurting some*thing* –public budget- and not some*one*, then public corruption will not be perceived as a crime.

Conclusions

1. Some actions are easily perceived as crimes or incorrect actions, because a simple causal relation is enough for identifying a victim of that action. Homicide is a perfect example of this kind of actions.
2. In a public corruption crime a complex causal relation is needed for identifying a victim, therefore this action is not easily identifiable as incorrect or as a crime.
3. Campaigns designed for preventing public corruption must help to identify victims; therefore people will recognize that in a public corruption crime some*one* and not some*thing* is being harmed.



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