Leaders or bullies? Even toddlers can tell the difference

Respect-based and fear-based power: it seems that children can recognise the two faces of power from early infancy. For the first time, a study reveals that infants are able to reason on the quality of social dominance. The joint study published today in Pnas is the result of collaboration between the University of Trento (Department of Psychology and Cognitive Science) and the University of Illinois (Department of Psychology). A promising research line to shed light on the notion of authority in infancy.

Trento, 5 September 2018 – (a.s.) Based on recent psychology studies, infants are able to distinguish between those who have power and those who do not. But what type of power do they perceive? When do we learn to distinguish between the authority of a leader, which comes from social acceptance, and that of a bully, which results from physical or psychological coercion? A study that appeared today in Pnas demonstrates that the ability to distinguish between the different types of dominance emerges very early in life, at around two years of age.

The study was carried out jointly by post doc researcher Francesco Margoni and professor Luca Surian of the Department of Psychology and Cognitive Science of the University of Trento, and by professor Renée Baillargeon of the Department of Psychology of the University of Illinois. “The studies that aim to understand the dynamics of dominance in infants are still limited”, commented Luca Surian. “But this area of investigation can achieve important results on how authority is established. Up to now scientists believed that children acquired this ability at a later age, through repetitive behavioural patterns and education. But now we know that they learn at an early age and well before they are exposed to significant social contacts”.

The research was carried out in laboratories in Rovereto and at the University of Illinois on 21-month-old infants: at this age they have already developed the attention and memory skills required to participate in a behavioural trial, still with little social contact. “Our research starts from the premise that there are various forms of dominance or power in social relations”, explained Francesco Margoni. “There is power based on the use of physical or psychological force and there is a more complex form of power, one that comes from social recognition and respect. This latter form of legitimate power governs our civil society: when authority is accepted, people feel they have an obligation to obey. That is what happens when we spontaneously adhere to institutions and follow the rules of civil society. When, on the other hand, the orders come from an individual with no legitimate power, people tend to obey only if they are forced by coercion”.

Infants were shown short animations in which two events were depicted: one with a leader and the other with a bully interacting with a group. In another animation the
leader or the bully gave an order to the group, which initially obeyed. Would the group continue to obey even when the leader or bully has left the room? The researchers built their conclusions by watching the little viewers’ surprised reaction to obedience and disobedience that were displayed in the videos. “The methodological paradigm we chose, explained Margoni, is based on the violation of expectation phenomenon. Infants, just like adults, do not passively perceive the physical and social world around them, but constantly formulate predictions and hypotheses on how it works. When hypotheses do not meet reality there typically is a reaction of surprise, which translates into a longer looking time. To find out how infants understand rules or represent the quality of objects, the researchers have observed their surprised behaviour in reaction to unexpected events. By measuring the time the infants spent looking at the obey and disobey events we have established that they are able, at an early age, to distinguish between different types of social power, the one based on respect and the one based on fear. In fact, infants looked significantly longer at the disobey than at the obey event only when the leader was giving orders, meaning that they expected the group to obey to a legitimate power”.

Margoni added: “To verify the results we carried out some extra tests that confirmed the trials and ruled out a number of alternative interpretations. In general, we demonstrated that infants can perceive the difference between the two forms of power at a very young age”.

The study "Infants Distinguish between Leaders and Bullies" can be found online on Pnas: [http://www.pnas.org/content/pnas/early/2018/08/28/1801677115.full.pdf](http://www.pnas.org/content/pnas/early/2018/08/28/1801677115.full.pdf)

Attached is an image from the animations that was shown during the trials.