

**Clarifying the importance of ostensive communication
in life-long, affective social learning**

Daniel Dukes^{1,2} and Fabrice Clément^{1,2}

1: Cognitive Science Centre, University of Neuchâtel, Neuchâtel, Switzerland

2: Swiss Centre for Affective Sciences, University of Geneva, Geneva, Switzerland

Authors' Note

This work was supported by the National Centre of Competence in Research (NCCR) “Affective Sciences: Emotion in Individual Behavior and Social Processes”, financed by the Swiss National Science Foundation (SNSF, 51NF40-104897).

Abstract

In our attempt to distinguish two types of social appraisal, we (1) clarify the 'knower-learner' relationship in affective social learning, (2) underline the important role that affective observation may have in acculturation processes, and (3) highlight some potential consequences for the recent debate on the benefits of child-directed (ostensive) learning.

In our target article (Clément and Dukes, this issue), one of our objectives was to connect two important concepts used in different research fields in order to highlight social processes by which individuals use others' emotional expressions to make sense of their environment (Holodynski, this issue). We proposed to distinguish *social referencing* from *social appraisal* by showing that the former is a subspecies of the latter category. Furthermore, we aimed to elucidate this relationship by placing both concepts within a new framework of socio-emotional processes that we call 'affective social learning'.

We suggested that social referencing *necessarily* involves intersubjective communicational exchanges, in the sense that it concerns shared, joint attention on a particular object; both individuals are attending to the same object and are aware that the other individual is doing likewise. Social appraisal, as we point out, is not necessarily shared. Walle, Reschke and Knothe (this issue) held the opposing view, arguing that social referencing and social appraisal are 'coterminous' or, in other words, that they are essentially the same concept.

Each commentary pointed out that both target papers agree that social referencing and social appraisal are terms that relate to using other people's affective expressions when appraising an object themselves (Holodynski, this issue; Manstead and Fischer, this issue; Parkinson, this issue). We were nonetheless encouraged to note that each of the commentaries differentiated between the two concepts, and that the distinctions were largely made along the lines that we had drawn.

Affective social learning is comprised of dynamic and life-long processes

Our use of the terms 'knower' and 'learner' to describe the dyad involved in the transfer of affective information needs to be specified for two reasons. Firstly, it may have unintentionally given the impression that we were talking primarily about the relationship between child and caregiver (Manstead and Fischer, this issue). While our target article certainly focused on the ontogenesis of affective social learning (ASL), the inherent processes appear to be influential across the life-span: all of the ASL processes we highlighted can be employed by infants and adults (Clément and Dukes, this issue). Thus, ASL should not be reduced to an aspect of child psychology,

but rather, we hope, it should inform research on the role of affect throughout the whole life span.

The second reason is that using 'knower' and 'learner' may lead to ASL being interpreted as being comprised of processes of social influence between fixed roles. But as Parkinson correctly points out (this issue), emotion exchanges are not static, as when the social exchange develops, each participant may be in the role of 'knower' and 'learner' several times. The concept of “relation alignment” proposed by Parkinson (this issue) makes a better job of capturing various sorts of emotional influence in daily social interactions than the more limited concept of “learning”. Nonetheless, it seems important to insist on the specificity of social appraisal processes: by taking into account the emotional reaction of others, subjects acquire new information about a given object, event, or person. This information does not have to be very specific. For instance, by simply observing the interest demonstrated by a third party, one can learn that a certain object is potentially worthy of attention. It does not yet imply that the observer will find it interesting, but it could be a first step toward the burgeoning of a new passion, especially when the third party is considered a role model.

Such observation may also play a major role when individuals are trying to adapt to a novel social environment. In the case of migrants, for instance, close relatives or caregivers are not always the most informed about the cultural context where the newcomers will spend the rest of their lives. In these circumstances, third parties identified as successful members of the new community can have, thanks to affective observation, even more impact than the individuals' own parents (Harris, 1998).

The role of ostension in affective social learning

Both the Manstead and Fischer and Holodynski commentaries (this issue) point out that the main difference we make between social referencing and affective observation is that the 'knower' may use ostension to intentionally communicate to the 'learner' in social referencing, while the 'knower' may be entirely unaware of being observed in affective observation. While both commentaries agree that this distinction is an important one to make, Manstead and Fischer argue

that, “it makes little difference whether the learner’s emotional response to a stimulus is shaped by being actively steered by expressive behavior that is deliberately communicated by a knower, or by witnessing the knower interacting with the stimulus and apparently enjoying (or disliking) the experience” (this issue, p. xx).

There is, in fact, some debate in the developmental psychology literature concerning the impact child-directed teaching has on the learning process (for a critical review, see Schneidman and Woodward, 2015). Natural pedagogy theory suggests that children have an innate modular learning system that detects when something is being communicated ostensively and that subsequently readies them to learn culturally specific knowledge (e.g. Csibra and Gergely, 2011). Egyed, Kiraly and Gergely (2013) for example, showed that when infants as young as 18 months old were presented with an experimenter that ostensively communicated her appraisal of an object to them (interest/like versus dislike/disgust), they were more likely to generalize this appraisal to a second experimenter than when the appraisal had been made inostensively. In other words, when the experimenter smiled at the child and called their name before expressing their preference, the child 'understood' that this was a preference that others would also have. On the other side of the debate, researchers argue that when being directly taught, learning is improved because the child and adult share attention and goals, a process which later helps the child recall the content of the learning (e.g. Moll and Tomasello, 2007; Moore, 2010).

While both sides of the debate argue that there is something special about child-directed learning, Schneidman and Woodward (2015) argue that the experimental evidence gives reason to believe that the only benefit that this type of learning has over observational learning is that it helps children direct and focus their attention. Furthermore, they argue that children that come from cultures where there is less child-directed learning learn culturally important information from observation alone (Schneidman and Woodward, 2015) – in other words, the method by which children learn cultural, generalizable knowledge, could itself be culturally determined.

While the results reported in Egyed et al. (2013) would suggest that there is more than

simply 'added focus' to be gained from learning from ostensive communication (as the child behaves differently as a function of how the appraisal is communicated), it seems that the debate about the benefits of child-directed learning over observed learning is destined to continue and the exact value of the distinction between social referencing and observational learning would appear to depend somewhat on its outcome. However, whether or not there is a difference in terms of the lesson that is learned, as Manstead and Fischer (this issue) and Holodynski (this issue) point out, from the learner's point of view, there is an important difference between whether someone has taught you something about value intentionally or whether you happened upon the affective 'lesson' by a chance observation. Perhaps then, the remaining difference between the two concepts would primarily concern the source and the intentions of the knower: if someone you trust teaches you something directly about how they feel about an object, it is more likely to make a lasting impression than if someone is trying to sell the object to you, for instance. This sensitivity to the intentions of the 'knower' has even been reported in children as young as 12 months old (e.g. Tomasello, Carpenter, Call, Behne, & Moll, 2005).

Conclusion

While the general premise of an important distinction between social referencing and social appraisal appears to be condoned by the commentaries here, we hope that the two target articles promote debate and research more generally in socio-affective processes.

Bibliography

Egyed, K., Király, I., & Gergely, G. (2013). Communicating shared knowledge in infancy.

Psychological science, 24(7), 1348-1353.

Harris, J. (1998). *The Nurture Assumption*. New York: Free Press.

Moll, H., & Tomasello, M. (2007). How 14- and 18-month-olds know what others have experienced.

Developmental psychology, 43(2), 309.

Moore, C. (2010). Understanding self and others in the second year. *Socioemotional development in the toddler years: Transitions and transformations*, 43-65.

Shneidman, L., & Woodward, A. L. (2015). Are child-directed interactions the cradle of social learning? *Psychological Bulletin*. Advance online publication.

Tomasello, M., Carpenter, M., Call, J., Behne, T., & Moll, H. (2005). Understanding and sharing intentions: The origins of cultural cognition. *Behavioral and brain sciences*, 28(05), 675-691.