A difficult introduction to affective social learning

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I.1 A difficult introduction

It is reasonable to expect any introduction to a book to consider the question(s) that motivated the volume, to reflect upon the relevance of putting minds together to think and write about the topic and to define the main concepts that inspire the book's title. By putting 'learning', 'social' and 'affective' together, we have not made our task particularly easy. Indeed, each of these terms refers to a concept that has given rise to multiple lines of research, essays and debates in the history of psychology. Given that the task of covering all of these points is not possible within these few pages, our introduction will only scratch the surface of the many issues that are implicated, in order to highlight what we consider to be the originality of our approach.

As an introductory remark, it is interesting to note that the different words in our title more readily tend to repel each other than peacefully coexist in the history of psychology. Indeed, most standard definitions of 'learning' refer to modifications that take place in an organism's response to a particular stimulus based on prior experience, leading to an enduring change mediated by its nervous system. This process is therefore described as an *individual* endeavour by which the subject acquires new information or modifies its subsequent behavioural patterns. As the pioneer Hermann Ebbinghaus put it, learning has to deal with how people retain information, and the scientist's focus should therefore be concentrated on these internal processes (Ebbinghaus, 1885/2013). This perspective also characterized the beginning of developmental psychology: Jean Piaget conceived of learning as an essentially individual quest for the child to make sense of their environment. In interacting with objects, babies acquire their first sensori-motor schemes that will then assimilate an increasing number of the aspects of their world, accommodating themselves when reality cannot be reduced to existing schemes

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(Piaget, 1936). From this constructionist viewpoint, the master builder is the individual, and the best fitting metaphor for his activity is the solitary scientist, testing hypotheses by experimenting and building increasingly complex and abstract theories (Gopnik, Meltzoff, & Kuhn, 2001).

This somewhat solipsistic view of learning was already criticized during Piaget's lifetime. Vygotsky, notably, insisted on the role of social interactions to guide the development of children; knowledge is 'co-constructed' and language, through its internalization by individuals, plays a crucial role in learning and in cognitive development (Vygotsky, 1978). Interestingly, the focus on the individual has also been criticized by former members of the Piagetian school who insist on the importance of social interaction in the development of cognitive abilities (Perret-Clermont, 1980). For instance, children who did not previously possess certain cognitive abilities involved in Piaget's conservation of liquids task, acquire them after using and practising them in a social coordination task (Doise, Mugny, & Perret-Clermont, 1975). But the researcher that really brought together the notions of *social* and *learning* is, of course, Albert Bandura. Bandura questions the commonly held idea that learning results from direct experience: according to Bandura, virtually all learning can occur on a vicarious basis, by observing people's behaviours and the subsequent repercussions (Bandura, 1977). In a series of famous studies, he showed that children who observed an adult acting aggressively (towards Bobo the doll, for instance) might then behave more aggressively than would otherwise be expected, apparently through the imitation of what could be seen as a social model (Bandura & Huston, 1961). Initiating a long debate that is still ongoing, he and his colleagues also demonstrated that aggression modelled on film can have a similar effect (Bandura, Ross, & Ross, 1963).

More or less at the same time, anecdotes of 'animal traditions' were circulating among field biologists, who observed that members of different groups sometimes exhibited patterns of behaviour that were totally absent in other groups – signs, perhaps, of cultures of behaviour. It seemed therefore inevitable to imagine that these 'cultural traditions' were transmitted from individual to individual by a form of observational learning. Galef and Clark (1971) then showed experimentally that adult rats could play an active role in determining their young's behaviour in order that the young avoid poisoned food. Learning could no more be seen as a purely individual endeavour, and the way was paved for accepting the idea of animal cultures (Boesch & Tomasello, 1998; van Schaik et al., 2003; but see also Galef, 1992).

Since then, it has come to be generally accepted that an important part of what we learn is socially transmitted. Given the importance of culturally informed practices for our species, it is hardly surprising that humans rely heavily on imitation to acquire the behaviours that are characteristic of their

community (Meltzoff & Moore, 1977). It has even been hypothesized that children tend to be 'overimitators', that is, to copy even causally irrelevant elements in a sequence demonstrated by an actor (Lyons, Young, & Keil, 2007). However, the acknowledgement of the importance of social learning has until relatively recently been restricted to *behaviour*. At the beginning of the twenty-first century, this restriction was lifted to include *knowledge* through research conducted on testimony. As Paul L. Harris put it, children are not stubborn, auto-didacts but rather, they learn a lot thanks to others' statements (Harris, 2002), notably about facts that nobody can learn on their own, like history, science or religion (Harris & Koenig, 2006). Interestingly, it has been shown that this dependency on others is not absolute and that, on the contrary, children exhibit selective trust (Clément, 2010; Clément, Koenig, & Harris, 2004; Harris, 2012).

The goal of this book is to designate, beside behaviour and knowledge, another area where social learning is required to assure the transmission of any given culture: *values*. The objective this time is not so much to understand how efficient behaviour or reliable knowledge is transmitted, but to shed light on the mechanisms that enable children and indeed any newcomers to a social group, to make sense of what is worth attending to, interesting, *valuable*. It should explain, at least in part, why what matters to us, matters to us, either as an individual or as a collective. Sociologists have long shown how this kind of relevance is socially distributed: certain activities, objects or persons are considered as highly desirable – or even fascinating – for a given social group, while considered as boring and/or unworthy by other groups (Bourdieu, 1984). These preferences are not just reflected in superficial ways of speaking and acting; they are most often rooted in profound emotions that can motivate lifelong investments and deeply felt resentments. How are those social transmissions possible and how can they have such an influence on an individual's personality? This is what affective social learning (ASL) is about.

I.2 From value to social evaluation

It seems uncontroversial to say that most psychologists would consider values as being important for explaining human behaviour. Abstract concepts such as 'family values', 'cultural values' and 'political values' can all be used as explanations for why people think and act in a certain way, or even used as a shorthand explanation for others' behaviour or beliefs (as in 'He did that because he is an American liberal' or 'She thinks that because her parents were both environmentalists'). Not only do we imagine that people act as a result of their values but we like to think that our values are relatively stable and that, to some extent, they define who we are. For example, they can define our goals in life – we might want to work in the health industry because we value working to help

others, or in the environmental sector because we value our planet. In short, our values can be defined as what matters to us, how we feel about something (Higgins, 2016). In a hypothetical world without any values, it is difficult to imagine how we could feel anything about anything – nothing would seem to matter more or less than anything else. With the possible exception of meeting our biological needs, this flattening of the evaluative landscape would result in a world without motivation, without pleasure and without displeasure. With this sobering illustration in mind, it is possible to consider values and how we feel about something as providing the impulse to acquire, acknowledge and act upon specific goals. In other words, our motivation to act seems to be intrinsically linked with the valence we attribute to the different aspects of our environment. This evaluation, or appraisal, is considered an essential property of emotions by many psychologists, enabling us to adapt to our environment by taking into account the potential hedonic consequences of daily events.

For a long time now, this process has been seen as essentially intra-individual. For instance, by the end of the 1960s, Paul Ekman described emotions as coherent responses, coordinated by 'affect programmes', which are triggered by events in the environment. Although partially inherited, these affect programmes can still incorporate information about how to adapt to certain recurring situations throughout the lifespan (Ekman & Cordaro, 2011). When they have become learned, these programmes operate automatically and cannot be interrupted once in process, although they may last less than a second (Ekman, 2003). While the expression of the emotion can be adjusted depending on whether or not the expresser is in the company of others who may be sensitive to their response (Ekman, 1972), the expression comes automatically and naturally, even if only in barely perceptible micro expressions when someone tries to deliberately or unconsciously suppress their emotion (Ekman, 2003). Ekman's theory is therefore, for the most part, relatively uninformative concerning the social, interpersonal aspects of emotion.

This basic emotion theory was challenged by cognitive-appraisal theories of emotion, both in terms of its tight object–response relationship and eventually in terms of its rather asocial approach. Appraisal theory's first buds appeared in the 1960s (Arnold, 1960; Lazarus, 1966), but it took about two decades before it really began to flower when several different authors proposed different versions of the theory (Barrett & Campos, 1987; Frijda, 1986; Leventhal & Scherer, 1987; Oatley & Johnson-Laird, 1987; Roseman, 1984; Scherer, 1984a; Smith & Ellsworth, 1985). While some appraisal theorists focused on the relation between person and object (Campos, Mumme, Kermoian, & Campos, 1994; Lazarus, 1991) and others on the reactions that objects elicit (e.g. Scherer, 1984b), all appraisal theorists agree that it 'is not events per se that determine

emotional responses, but evaluations and interpretations of events' (Roseman, 1991, p. 162). Of course, the word appraisal focuses attention on the evaluation of the object or its emotional meaning (Clore & Ortony, 2000), rather than the (intrinsic) value of the object itself. Whereas basic emotion theory suggests that there is a coherent response to give to the funny joke, for instance, the loosening of the object–reaction relationship inherent to appraisal theory can better explain, for example, how it is simultaneously possible for Samuel to find the joke funny but Ike to find it disgusting, or indeed, how it is possible for Francesca to have found a book interesting yesterday, but not anymore?

Again then, for appraisal theorists, it is not the stimulus or object itself that causes the reaction, but the evaluation of the stimulus. For example, perhaps it is more adapted to run than to fight, depending on how big the threatening person is in comparison to oneself or, perhaps the self-attribution of embarrassment can be mediated by the nature of an onlooker, who had done the same thing in the past and is therefore likely to be a less harsh judge. The emotion-eliciting question for appraisal theorists is whether the object is relevant to their goals or not, while for basic emotion theorists, the reaction to a particular object is more automatic (Frijda, 1986).[1]

As a more relational perspective then, appraisal theory is able to explain the differences that can exist between the evaluation processes made by different persons or by the same persons in different contexts. However, appraisal theory has been less successful in turning attention to social contexts and processes. Indeed, in a relatively recent review of appraisal theory written by some of its most notable proponents (Moors, Ellsworth, Scherer, & Frijda, 2013), the word 'social' was only used in terms of 'future research', the term 'relation' was only used concerning relations between the different mechanisms of appraisal and the word 'context' was only used once for describing 'events in their context' (Moors et al., 2013). While this does not mean that appraisal theories have nothing to teach us about the social context in which persons relate to objects, nor that its many adherents do not consider such issues, it does suggest that there is still more to do in terms of convincing some leading researchers of the importance of social context (Parkinson, 2011a).

This relative oversight comes in spite of the fact that, as early as 1981, Campos and Stenberg mentioned the possibility of 'social appraisal' in terms of taking into account how others react to events, comparing it to

[1] While it is important to stress that elements of appraisal become an important part of Ekman's theory (at least as early as 1985, see Ekman, Friesen, & Simons, 1985) and as such, this contrast might be somewhat overstated, it is nonetheless clear that appraisal theory insisted more on the evaluation of the object from its inception, rather than on the value of the object itself.

'intrinsic appraisal', which was an individual's appraisal of the objects in their environment (Campos & Stenberg, 1981), although it took another twenty years before the term was formalized. Antony Manstead and Agneta Fischer (2001) developed the concept in a bid to alert affective scientists to the fact that there was too much focus on the individual 'intrinsic appraisal' and not enough on the 'social' aspects of affect in appraisal theory (see also Parkinson 1995, 1996; Parkinson & Manstead, 1992). They stated that 'the behaviors, thoughts or feelings of one or more other persons are often appraised in addition to the appraisal of the event per se' (Manstead & Fischer, 2001, p. 222) and this concept has since then been a rich source of experimentation (e.g. Evers, Fischer, Rodriguez Mosquera, & Manstead, 2005; Mumenthaler & Sander, 2012, 2015; Parkinson & Simons, 2009; van der Schalk, Kuppens, Bruder, & Manstead, 2015). Indeed, Manstead, Fischer and colleagues have continued to incite researchers to focus more on the interpersonal aspects of emotions (Fischer & van Kleef, 2010; Hess & Fischer, 2016; Parkinson, Fischer, & Manstead, 2005; Parkinson & Manstead, 2015).

The debate about the nature of emotion has diversified then, from one where objects in the environment necessarily elicit quasi-automatic, universally recognisable reactions in individuals, to one where emotions involve the individual's context- and goal-dependent evaluations and where the evaluations of others' evaluations (or appraisals) may play an important role in the process. Klaus Scherer described one of the initial appraisal processes in terms of 'radar antennae scanning the environment' (Scherer, 1994) in the sense that an individual will locate and then evaluate objects on the basis of whether or not they can meet or obstruct the individual's goals. As such, other people can be identified as being, in the first instance, proxy relevance detectors and, more subtly, potential informers of value: we can learn from others what is worthy of further attention, and more specifically, how to qualify that attention – should I attend with fear, disgust, joy, etc. Thus, not only can we vicariously learn about efficient behaviours or reliable knowledge, we can also learn about values vicariously too.

Another important piece of the story comes from developmental psychology, and again has Joseph Campos at its origin: the visual cliff experiment and the phenomena of social referencing. Briefly, the social referencing paradigm used the visual cliff experiment (Gibson & Walk, 1960) to highlight how 12-month-olds would look to their mothers (i.e. reference them) when deciding to cross what apparently looked like it could be a dangerous drop to the infants (Klinnert, Campos, Sorce, Emde, & Svejda, 1983).[2] The results were spectacular: while a significant

[2] In fact, when the 'drop' was not too big, the infants crossed regardless of any signal from their parents, while when it appeared too great, the infants avoided it, irrespective of parent affective expression. This is important as some researchers insist that it is

majority of the infants crossed while their mothers looked at them with facial expressions of interest or joy, none of them crossed when the mothers looked at them with fear. Again, this finding has motivated many empirical studies that have added a great deal to our understanding of socio-emotional development (Boccia & Campos, 1989; Feinman & Lewis, 1983; Hirshberg & Svejda, 1990; Klinnert, 1984; Klinnert, Emde, Butterfield, & Campos, 1986; Sorce, Emde, Campos, & Klinnert, 1985; Walden & Baxter, 1989; Walden & Ogan, 1988; Zarbatany & Lamb, 1985). More recently, it has been shown that social referencing continues to be successfully used by adults (Parkinson, Phiri, & Simons, 2012). Clearly, there is a great deal of overlap between social referencing and social appraisal and, while some would have us believe that the two concepts are, in fact, indistinguishable (Walle, Reschke, & Knothe, 2017), we have argued that there are very good reasons to differentiate between the two (Clément & Dukes, 2013, 2017). As we see it, social referencing can be understood as a subtype of social appraisal.

In fact, it was while we were in the process of identifying the differences between social referencing and social appraisal that we struck upon the idea of a hierarchy of socio-emotional processes that could influence how people learn the value of the objects in their environment from others. This brings our introductory overview to the present day and to the title of this book. ASL describes how we can be influenced by the emotional expressions of others when acquiring knowledge about how to value the objects in our environment. Having outlined the historical motivation for this approach, we will now go into detail about its mechanisms.

I.3 The dimensions of ASL

We introduce the notion of ASL as an overarching concept to highlight research done within different fields while bringing important insights about the different ways people learn about what is valuable in their social environment. In a sense, these phenomena share the same function – the transmission of values – but differ in the cognitive and social mechanisms necessary for them each to function. Highlighting these differences is important to us for ontogenetic and phylogenetic reasons: while it seems that certain mechanisms are more complex than others, it is possible that they (a) are already present in very young children and (b) exist in other (non-human) species that to varying degrees appear to master specific competences that are transmitted from one generation to another.

To understand the differences between the phenomena we want to describe, let's start with some concrete illustrations. Marie, age 1,

particularly when there is an ambiguity to resolve that individuals look most readily to others for their 'advice'.

is playing alone in her room. She cannot help but hear her father and his friends watching television, enjoying a rugby match with loud and passionate enthusiasm. In such cases, nobody is addressing any direct message to an observer. Moreover, Marie does not really yet know what is so exciting about the event, or even what the object of excitement is. Marie is not intentionally trying to learn anything, nor is anybody trying to teach her anything. However, we suppose that she will learn to associate certain kind of objects with the very specific affective 'ambiance' that she feels during such emotional episodes. This is what we propose to label as *emotional contagion*. The second case requires an intentional search for information by the observer – the potential learner – and can be illustrated by the following 'stranger' situation: let's imagine that Marie is now waiting with her father for a medical appointment, browsing a picture book of some kind. Suddenly, an unknown person with a military uniform enters the waiting room and Marie does not know exactly how to feel about this interruption. She therefore turns her attention toward her father who, without paying attention to his child, addresses the newcomer with a warm greeting before starting a cordial conversation. Her father's reaction calms Marie who gets back to her book, with the probably enduring feeling that people dressed in uniform can be positively connotated. These kind of episodes are what we call *affective observation* (see Repacholi & Meltzoff, 2007, for a similar concept, *emotional eavesdropping*, discussed below). In the next illustration, the potential learner and the 'knower' have an intentional exchange on a given object in a spontaneous way. The classic example is the 'visual cliff experiment' designed by Joseph Campos and his colleagues, described above. In such cases, the child and the adult are engaged in an intersubjective relationship and their attention converges on the same object. However, the 'call' for information and the response do not require much cognitive elaboration: the learner is engaged in an action and his attention is already directed toward an object of interest. What he does not know is how to appraise the situation he is involved in, and whether he should stop or pursue his action. That is why he turns his attention to a significant other who, by means of an emotional expression, encourages or discourages the realization of the goal. This is what we called *social referencing* (for more on the specific criteria we use to describe something as *social referencing*, see Clément & Dukes, 2017). Finally, there are cases where the knower acts more as a 'teacher', influencing not only the kind of action to perform with a detailed demonstration, but also the kind of objects that are worth attending to. Marie's father can, for instance, systematically point to 'books of great worth', plead for the importance of literature, express his awe for great writers and systematically read several chapters of what he considers to be major works of art. Following Csibra and Gergely's (2009) denomination, we propose to call this kind of value transmission,

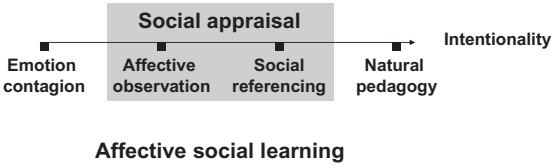

Figure I.1 ASL along the dimension of intentionality, including the four major concepts and with social appraisal at its core.

where the affect is involved together with explicit explanations, *natural pedagogy.*

Figure I.1 shows how ASL was originally conceived (Clément & Dukes, 2017). As the name implies, the dimension of *intentionality* (in the sense of 'willingness' or 'purposiveness') relates to the increasing amount of purpose involved in the transmission of values. In other words, it is related to how much either the person wishing to communicate some information manifests her desire to communicate or how much the person wishing to receive the communication manifests this desire. In the case of emotional contagion (the rugby example, earlier), an emotion can be transmitted without it being intended at all. In the case of affective observation, the learner is aiming to get affective information. For social referencing and natural pedagogy, both social partners intend either to send or receive (to teach or to learn) affective information. In the specific case of natural pedagogy, this relationship is initiated by the teacher, but this may be implicitly or explicitly elicited by the child's desire to know something (Clément & Dukes, 2017).

It is important to note that this dimension is ordinal in the sense that we are not implying that 'social referencing' finds itself exactly half way between affective observation and natural pedagogy in terms of intentionality, but it is possible to say that there is less intentionality involved in affective observation than in natural pedagogy.

In Figure I.2, we propose to add a second dimension to specify the differences between the types of social learning: the amount of *social orientation* involved in the transmission of the information. By this we mean how much account is taken of the 'other' in these processes. In emotional contagion, for example, little or even no account is taken of the other as, in the strictest cases of emotion contagion, it is possible to imagine being affected by someone else's emotion without being aware that this was the case. In affective observation, the learner is clearly oriented to the knower, in social referencing, both are oriented briefly to each other (at least in a 'one-hit' exchange – an exchange of glances, for example), while in natural pedagogy, a much fuller exchange of views is given, as both people are oriented

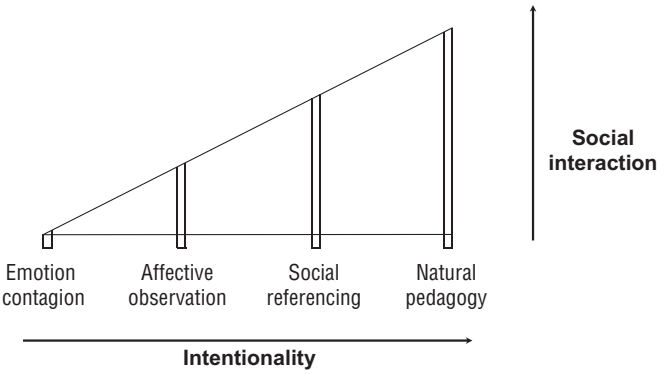

Figure I.2 ASL in two dimensions: intentionality and social orientation.

entirely towards each other. In the same way that levels of intentionality increase from emotional contagion to natural pedagogy, so too does the amount of social interaction, as will be explained in more detail for each component below.

In terms of the conceptual space, we consider that there is potentially more social orientation in social referencing than in affective observation (where only the learner is intentionally getting information via an other's affective reaction), but that there is potentially less in social referencing than in natural pedagogy (where each participant is coordinating his or her learning efforts for a more or less extended period of time). Again, these should only be seen in ordinal terms.

We argue then that ASL can be depicted by these two dimensions. Again, this will become clearer when each component is described in more detail.

Finally, we judge that our description is more complete and exact if we include a measure of trust that the observer may have with respect to the other, as shown in Figure I.3. This dimension is probably present in all social interactions when information is transmitted, irrespective of the type of information (beliefs, knowledge, affect, etc.), it particularly concerns the amount of trust a potential learner has in the source and can range from low or high for any of the components. The level of trust that the learner has in the 'knower' modulates how well the particular information is learned – when it is high, it means that the observer trusts the knower absolutely and we can expect the information to pass unchecked, while if it is low, the observer doesn't trust the knower at all and information would most likely not affect the learner. This may even be the case in emotional contagion when there is no 'intended' information at all (see Section I.4.1 below). It is even possible that in situations where the learner