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Abstract

In general, sociological theories are, or at least seem, to be without heart. However many fundamental sociological notions such as solidarity, social cohesion and identity are highly emotional. In the field of information and communication technologies studies there is a specific theory, that of domestication (Silverstone and Hirsch [58], Silverstone and Haddon [59], Haddon and Silverstone [31]), inside which several research studies on the emotional relationship with ICTs have flourished (Fortunati [19], [20]; Vincent [63]). In this paper I will focus on this theory, which is one of the frameworks most commonly applied to understand the integration of ICTs into everyday life. I argue that emotion empowers sociological theories when its analysis is integrated into them. To conclude, I will discuss the seminal idea proposed by Star and Bowker [62] to consider emotion as an infrastructure of body-to-body communication.

Keywords: Domestication theory, emotion, information and communication technologies, infrastructure, body, body-to-body communication, mediated communication.

1 Introduction

In general, sociological theories do not worry about emotions, they are theories without heart. Nevertheless, if one examines seminal sociological notions such as solidarity, social cohesion, identity, what are they if not a "bundle of emotion, binding social actors to the central symbols of society", as Illuz ([36]: 2) writes? So, sociological theories are apparently without heart as they are inhabited by emotions although not in any explicit way.

Theories on new media are not an exception at this subject.

However, there is a theory among those currently applied in the studies on ICTs (Information and Communication Technologies) – domestication theory (Silverstone and Hirsch [58], Silverstone and Haddon [59], Haddon and Silverstone [31]) - that is in a certain sense an exception, since it includes several research starting from the observation of emotional reactions to the diffusion and integration in the domestic setting of ICT.

It is not by chance that this theory has allowed the development of several studies which have taken into account also the emotional aspects of the integration of ICTs in the domestic sphere (Fortunati [19], [20]; Haddon [33]).

Apart from these studies related to domestication theory, another seminal approach to emotion is that advanced by Star and Bowker [62] who see emotion and the body as an infrastructure of body-to-body communication.

Considering emotion as an infrastructure maybe allows us also to reflect in a more sophisticated way on the role of emotion in mediated communication.

The aim of this article is to show how the explicit integration of emotion into sociological theorization cannot but lead to a more powerful conceptualisation.

Domestication theory, which through cross-fertilization with domesticity theory has included emotion in its conceptual framework, is a good example of the capacity of theories to acquire symbolic and conceptual strength when they integrate emotion.

In the next section I will analyze the development of sociological theorization between rationality and emotion.

Then, I will examine domestication theory as the theory that has allowed the development – even if slowly - of emotion as one of the key elements in the understanding of the integration of information and communication technologies in everyday life.

To conclude, I will discuss the seminal idea to consider emotion as an infrastructure of body-to-body communication (Star and Bowker [62]).

2 Sociological Theory between Rationality and Emotions

Sociological analysis is generally based on the development of a discourse which focuses on the rational layer of social behaviour.

However this rational aspect often remains in the background or it presents itself like a taken for granted premise.
Sociological theoretical activity in particular represents itself as an even more radically rational undertaking. However, Roger Silverstone, who was one of the main theorists of “domestication” approach, reminds us ([61]: 229) that “all concepts are metaphors.
They stand in place of the world. And in so doing they mask as well they reveal it”.
The approach proposed by Silverstone opens up a lot of issues: the first is that theoretical activity is much less rational than it represents itself.
In fact metaphors introduce tension between two aspects of meaning which might be contradictory or which stress a latent or an unexpected relation (Lakoff and Johnson [40]). Metaphors, as well as symbols (Jung [37]), are the rhetoric tools that convey in the language the ambiguity that psychologically one needs to express.
The need to express ambiguity derives from the fact that we are emotionally ambiguous, since, as Freud pointed out, we love and hate at the same time.
Metaphors and symbols are two of the features that Umberto Eco characterises as forms of hyper-codification [11].

They are such since they require a supplementary effort from the speaker or writer to be formulated and from the receiver to be understood.
The tension of metaphors and symbols corresponds to an emotional dimension which enters in the rational sphere breaking up the game (Marchese [46]).
The game is always that when one speaks, what one says and what one does not say (or what one says in an allusive way) are both relevant.
Sociological theorization is in particular an activity where a new statement accompanies people in conceptual territories that need to be explored, where the old encounters the new, which rarely is clear, as in the case of domestication theory.
But this element, far from being a limitation, represents instead an advantage, as Silverstone himself underlines, allowing multiple interpretations and empirical experimentation and research.

The success of a sociological theory is exactly given by the precarious equilibrium between what is said and what is not said, between the powerfulness of logos and the perturbing presence and energy of emotion.
But this equilibrium is very much strengthened by the simplicity of a theory.
Only simple concepts survive over time and domestication is not an exception, argues Silverstone ([61]: 229).
The second aspect of the question is that the major part of our conceptual system is on the one hand partially structured in terms of other concepts, that is it is structured in a metaphoric sense (Lakoff and Johnson [40]), and that, on the other hand, metaphors are mainly a conceptual construction.
Even the very name of this theory, ‘domestication’, is a metaphor, which was inspired by the work of the anthropologist Kopytoff [39].

Kopytoff proposed that we should see cultural objects as biological beings and to analyse their ‘life’ as such. He was in fact convinced that they cease to be mere commodities when they are culturally integrated into cultivated home environments.
When the object is a technological artefact, this taming is an even more necessary requirement. In fact, technology has a specific strength, consisting in its capacity to produce movement. Movement is the watershed between beings and inanimate objects (Fortunati [13]).
It is a capacity which qualifies technology as a particularly powerful object.

It is exactly this power that needs to be domesticated to avoid a situation where the technologies revolt against those who use them.
When, then, the technologies in question are ICTs, the power of the movement technology brings with it is particularly strong.
In fact ICTs deal with the intellectual and communicative processes of individuals. Not by chance Maldonado [44] calls them “intellective machines”, Rheingold [55] “tools for thought”. It is the particular power of ICTs that has in a certain sense pushed scholars to compare them with ‘wild animals’ which needed to be tamed.

The process of their integration in the household’s context was termed as domestication. In Kopytoff’s analysis of the taming of cultural objects seen as “wild animals” there is an implicit emotional narrativity.

What is the emotion one feels towards wild animals if not fear, terror? The process of domestication has enabled human beings to overcome the fear by building a process of familiarity and intimacy with wild animals, by taming them.
This feeling of fear (and terror) is one of the classical emotions that humankind felt when confronted by technology. The other one is wonder or what Mosco [49] calls the "digital sublime". The sense of wonder as an emotional reaction to the technology is well documented since ancient times and has found a new reformulation in the Weberian notion of enchantment for technology.

This opposition between the two main emotions tracing the mood towards technology has inspired the debate on technology and society until the second world war and continues to present itself again in within many of the studies on society and technology in the guise of technological determinism.
Silverstone [61], in his last attempt to take stock of the domestication theory, analyses the technological determinist approach, arguing that its internal logic is based on the most important emotional pole - wonder and fear - that has traditionally surrounded the attitude of society towards technology.
Recently Sally Waytt [66] points out that technological determinism continues to live and be revived in those mainstream studies and theories that want to refuse it in principle.
It is a matter of fact that technological determinism is strong since technologies, as I mentioned above, are perceived as the powerful extension of the human body and are humanized. Machines are human projections and become human creatures (Katz [38]).
The relevant evidence for my discourse is that in the first period when we encounter a technology the mainstream narrativity on domestication describes a path in which the technology is integrated into everyday life, becomes invisible and a kind of normativity elbows in with the consequence that emotion disappears from the majority of research frameworks referring to domestication theory.

Second, one cannot understand the persistence of technological determinism if one does not analyze technologies in their complex reality, which is constituted not only by rationality and science, but also by emotions (Haddon et al. [32], Vincent and Fortunati [64]), symbols, metaphors, myths (Mumford [51], [52]; Mosco [49]; Fortunati [13]; Fortunati, Katz, Riccini, [22]) and narrativity (Carey [4]; Silverstone [60]). If one shares Susan Langer's idea that technique is a way to handle problems, one should conclude that technologies have an emotional technique.
However in the quantitative research projects I have done with other colleagues both in Italy and in Europe, it emerges that fear and wonder have disappeared from the emotional repertoires which people activate in their relationship with technologies.
This relationship is changed and transformed from an episodic and extraordinary event to the spread of ownership of these devices and practices of use based on the daily routine of an increasing number of people. One can distinguish two emotional dimensions –one is *satisfaction*, made up by emotions such as interest, joy, relaxation, amusement, satisfaction, curiosity, enthusiasm and surprise, and the other is *dissatisfaction*, made up by emotions such as indifference, irritation, boredom, anger, frustration, anxiety/stress, unpleasantness, embarrassment (Fortunati [17]).

So, the emotional repertoires can by now be conceptualized in term of an assessment of consumption.
Clearly the domestication of ICTs has been the process which has also accompanied the disenchantment for the technologies of information and communication, which has occurred because of standardized operativity in the domestic setting.
In effect Kopytoff's approach and the metaphor of domestication proposed by Silverstone have captured the meaning of the process of "technological naturalization" that has taken place with the ICT.
As Contarello et al. [8] have showed, in a research on social representations of the human body and the ICTs carried out at international level (including countries such Italy, Netherlands, Spain, Romania and Russia), the fact that the technologies of information and communication get closer and penetrate the human body is interpreted by respondents as a process of naturalization of technologies and thus "a naturalization of what is artificial, rather than the other way around".

So, far from a rhetoric that makes the ICTs appearing as a 'deus-ex-machina', this research stresses instead the necessity to see them as imitating the human body, which is the model that has inspired all machines and technologies.
The results of this research do not surprise since the most usual examples of ontological metaphors are those in which physical objects are considered as if they were persons (Lakoff and Johnson [40]: 53-54).

The personification of objects allows humans to understand a wide range of experiences with non-human entities in terms of human motivations, characteristics and activities.
So, this behaviour describes the fact that many people are able to develop a meaning of technological artefacts only by conceptualising them in human terms.
In the particular case of the domestication theory, the shift is even more complex, because it happens through an intermediate stage which passes by means of a metaphor with wild species.

3 Domestication Theory and the Coming to Light of Studies on Emotion and ICT

Domestication theory, which is one of the theories widely drawn upon to understand and describe the use and the integration of ICTs in everyday life (Silverstone and Hirsch [58], Silverstone and Haddon [59]), is also the one which has allowed and encouraged in a second stage the coming to light of a series of studies on the emotional relationship with information and communication technologies.
For this reason I will focus here on domestication theory, trying to expose its main tenets and to show through which paths and theoretical cross-fertilization this theory has created a fertile terrain to develop a discourse and an empirical tradition of research on emotion and ICT.

Domestication, argues Roger Silverstone ([61]: 232), has to be seen as a consumption process in which consumption is framed as "linked to invention and design, and to the public framing of technologies as symbolic objects of value and desire".
The inspirers were Jean Baudrillard [1], Michel de Certeau [10] and Daniel Miller [48], who at the end of 1980's were all observing that the classical boundary between production and consumption was blurring.
The world was changing under the mobilization and struggles not only of the working class but also of other new social actors, such women and youth.
The hierarchical structures and the strategies of separation among the old economic and social structures were losing their strength.

Their studies showed that in the consumption process commodities are subject to an intense activity of attribution and the transformation of particular meanings as well of symbolic and affective production.
The domestic sphere emerged from their studies not as the place where the command scheme embodied in the commodity was merely executed, but as the place where the subjectivity and agency of consumers/users reinterpreted the commodity, often in an unexpected way.
Of course the space of rebellion or at least of non-cooperation with the logics of the capitalistic process in the consumption sphere remained of limited influence until the moment in which capital discovered that not only workers but also consumers could be an independent variable in the process.
The recognition by these authors of the consumption sphere as a productive sphere in an economic sense and also as a sphere where struggles, conflicts and autonomous determination by a multitude of actors take place has been of a great importance.

The merit of domestication theory is that it has linked this discourse about consumption to several other strands such as the innovation theory (Rogers [56]), showing in a certain sense that the diffusion and process is not linear as it was imagined by Rogers.
Another strand which domestication theory included under its umbrella is the question of the design of technology, which should consequently be seen as an on-going activity which does not stop at the factory walls, but which continues in the sphere of everyday life and which should consequently be seen as an activity which also involves consumers/users (Schuler and Namioka [57]).

These two issues – innovation and design – have been developed considerably over the past

years, reflecting a large amount of empirical research and debate.
Users/consumers have been conceptualised as e-actors including in this notion the complexity of the rich debate on the role and agency of buyers/users/consumers/stakeholders (Fortunati et al [24], Gebhardt et al [27]).
Further strands that in principle can be linked to this theory include that of Goffman's tradition of the public frame [29] and that of social psychologist tradition of social thinking which has been explored in the framework of research on social representations (Moscovici [50]).

This latter framework of research on social representations has constituted the theoretical background of a series of studies on the new media that have been carried out in the last fifteen years (Fortunati and Manganelli [23], Contarello and Fortunati [7]).
This group of studies is important, as, I will discuss below, they add an important dimension regarding the integration of technologies of communication and information into the household context: the dimension of the integration of new technologies at the socio-cognitive level, in the system of social thought as developed in the public sphere.
In these studies the process of domestication is investigated by exploring how these technologies are socially elaborated and shared with the purpose of constructing a common understanding of them.

To better understand the role of new media, Joachin Höfflich [35] has recently proposed combining the powerful notion of 'frame' with that other powerful notion of 'social representation'.
A final connection can be made again with the analysis of Baudrillard regarding the system of objects [2] and their symbolic and cultural value.
In practice, domestication theory describes the adoption and use of ICTs in four dimensions: the first is appropriation, the second objectivation, the third is integration and the fourth is conversion.
Appropriation is the process that involves human agency and which describes the interaction between the human and the technological in a constant dialectic of change. Objectivation is constituted by tactics of placing the new technology inside the domestic sphere, by reorganizing the house space and restructuring the micro-politics of gender and generation relationships and the command over the domestic space.
Integration is the process of injecting the practices of using the new media into the rhythms and pauses of domestic life, inside and outside the formal boundaries of the household.
In practice, time management has been found to be in Europe one of the three main reasons for using the ICTs (Fortunati and Manganelli [21]).
Conversion, which implies recognition, is made up of "the perpetuation of the helix of the design-domestication interface" (Silverstone [61]: 234) and involves display and the development of skills, competences and literacies.

This last element of domestication has also results in many studies and research (Chiaro and Fortunati [5]: Williams, Stewart, Slack [65]). The late Silverstone stressed that consumption includes five dimensions: commodification, appropriation, objectivation, integration and conversion.
These different dimensions are often confused and they are somehow inspired by the two stages of the social integration at cognitive level depicted by Moscovici [50] in his theory on social representation.
These two stages are anchorage and objectivisation: the former enables people to incorporate something with which they are not familiar into their network of categories, integrating it cognitively in the pre-existing system of thought.
Objectivisation (whose name recalls the second element of domestication) helps to make something abstract concrete, to give ideas a material consistency and to embody conceptual schemes.

By the way, these respective stages have the purpose of describing the conceptual and social integration of technologies in everyday life.
While domestication is sensitive to the material and immaterial part of the integration process, understood as practical behaviour, but also as attitudes, opinions and values/symbols, the social representation approach is developed mainly on the cognitive side.
In both theories, domestication and social representations, however, although emotion plays an important role, this role was not explicitly discussed, at least in a first stage of research in this field.

And yet almost all human cognition depends on and uses concretes structures such as the sense-motor system and emotion (Lakoff and Johnson [40]).
This initial ignoring of the emotion role in the domestication process is even more surprising since the domestication metaphor develops, as I showed above, from the starting point of the conceptualisation of the new technologies as being like wild animals and so implicitly it include a noticeable emotional tension inside it.
This indifference towards emotion however was already overcome in the early 1990's when domestication theory was cross-fertilized by domesticity theory (Fortunati [12]).

It was through the contribution coming from domesticity theory that domestication theory found the way to develop further its approach to consumption, including the immaterial part of it, which is constituted by emotion, affection, communication, information and so on.
In effect the approach formulated by domestication theory to consumption was in part new and in part old.
It was new since this theory understood the consumption sphere as a production sphere,
it was old because for the first period of research it did not try to understand what this could imply.
The questions which have been avoided in this phase were: production of what? By whom? For which purposes? With what effects? Only when the analysis on the social functioning of the labour-force reproduction has been made merge with domestication theory (Fortunati [19], [20]) has it been possible to answer all these question in an appropriate way.
Fortunati's analysis showed that the consumption process should be seen as part of the process of reproducing the labour force which takes place on the domestic sphere and which has a specific worker: women.

The cross-fertilization between domestication and domesticity theory allowed us to understand that production inside consumption should be seen as the production of value, of surplus value, and that this process is the main and productive process of the whole economic system (Fortunati [15], [16]; Hochschild [34]).
In this framework, emotion represents a substantive part of the immaterial labour carried out in the reproductive process and technology represents a tool to make women intensify their Labour. Studying the short-circuit of the emotional relationship with ICTs and the social role of electronic emotion allowed the blossoming of a series of studies on this topic (Vincent [63]; Lasen [41]).
The specific role of emotion has been implemented in several studies that have been carried out later both at quantitative level and qualitative level and which now constitute an important strand of domestication studies (Vincent and Fortunati [64]).

4 Emotions as Infrastructure of Body-to-Body Communication

On top of this cross-fertilization between domestication and domesticity theories, another original approach to the understanding of emotion in the communicative process is that proposed by Star and Bowker [62].
These two scholars define emotion and the human body as components of the infrastructure in face-to-face, or even better body-to-body, communication (Fortunati [14]).
Their approach allows us to capture better the role of emotion in accompanying the process of communication in copresence, but also in accompanying the practices of using information and communication technologies as well as the transformation of social organizations in which these technologies are used.

What transformation of emotion do we experience as an infrastructure of body-tobody communication when the communication process is mediated?
For understanding and depicting this transformation I refer to a classical concept which was introduced by Marx [47] in the *Economic and Philosophical Manuscripts of 1844,* and which is 'alienation'.
Many intellectuals and scholars of 20th century have reflected on the issue of alienation and offered valid contributions.
Among them I cite here, for example, Gorz [30] who stated that the loss of control by individuals of their selves has meant the ever-growing loss of control of their needs, desires, thoughts and the image that they have of their selves.

I argue that in the 20th century alienation has also involved the communication sphere, where by means of the technologies of information and communication the separation of the body from the communication of emotion, words and non-verbal signals has been produced.
The mediation of an artificial transformer (such as the mobile phone and the internet) has in fact strengthened the communication process but at the same time has provoked structurally a separation between the body and the personal and social capacity of individuals to communicate verbally or by written and also visual representations.

This aspect of alienation is inevitable since the development of the capital system has implied the rupture of the unit between mind and body and consequently a separate development of the mind from the body.
This separation means that the mind has more chances than the body to be protagonist in the communication process.
As Manovich [45] argues, the main point of tele-presence is not in individuals' presence through ICTs, but their absence through ICTs (anti-presence).
In fact it is no more necessary to be physically present in a certain place to affect the surrounding reality.

As consequence, the distance between the subject and the object or another subject becomes the crucial point, since it is the distance that shapes perception.
The teleabsence of the body confines it not only to a kind of secondary role in mediated communication but also to a condition of being a minority.
Its affordances, needs and desires are mainly ignored. With the advent of the tele-absence of the body, the physical and emotional infrastructures of the communicative process become separated and have a different destiny.
While emotions, for their specific essence of inner energy which simultaneously implicate cognition, affect, evaluation, motivation (Illouz [36]), adapt themselves to mediated communication in various ways, the physical infrastructure of the body expresses more inertia towards the change in the communication sphere.

In fact, the separation of emotions from the body leads them to a better destiny, since this separation does not automatically imply that individuals are destined to live emotion in a way that is worse.
On the contrary, the destiny of the body with mediated communication is that to be ignored in its potency and peculiarities and to be treated as in absentia.
The body in computer mediated communication is expected to be steady, sit down on a chair. See all the health problems affect the body and especially some parts of it such as the neck, the arm, the wrist and so on that have pain.
The role of the body is less sacrificed, of course, in mobile communication in which it can move. However, in both cases, the script of the body is in fact reduced to micro-gestures, often to wrong postures, to the use of only two senses, mainly sight and hearing, and also the voice. This limited use of the body cannot help but also distort seriously the communication of emotions, which, although they are linked to social and cultural contexts and shared norms, remain "body matters" (Frijda [26]).
Here a question is inevitable: to what extent are emotions sacrificed in their separation from the body?

When the body is separated from the communication in a certain sense a sort of alienation of emotion is produced, since these simultaneously implicate cognition, affect, evaluation, motivation and the body.
As consequence, conceding a growing share of our own communicative activity to mediated communication might involve risks in terms of psychophysical wellbeing (Contarello [6]).
The problem is that on many occasions one cannot choose the best channel but rather use the channel that one has at one's disposal to communicate and that often ICTs are precious tools to overcome spatial, temporal and economic limitations, but also to explore other dimensions of oneself.

The definition of electronic emotion advanced by Fortunati and Vincent [25] might help to figure out what these dimensions are. For them an electronic emotion is: "an emotion felt, narrated or showed, which is produced or consumed, for example in a telephone or mobile phone conversation, in a film or a TV program or in a website, in other words mediated by a computational electronic device.
Electronic emotions are emotions lived, re-lived or discovered through machines.

Through ICTs, emotions are on one hand amplified, shaped, stereotyped, re-invented and on the other sacrificed, because they must submit themselves to the technological limits and languages of a machine.
Mediated emotions are emotions which are expressed at a distance from the interlocutor or the broadcaster, and which consequently take place during the break up of the unitary process which usually provides the formation of attitudes and which consists of cognition, emotion and behaviour".

A specific study on the social representation of the human body and ICTs has investigated the relationship between the human body and new technologies (namely the mobile phone and the computer/internet) with the purpose of understanding how this relationship is socially conceptualized in this period that has been named 'mass prosthetization'.
The results indicate that social thought still sees a clear opposition between the human body and the new media (Contarello and Fortunati [7]), which seem to be destined to a divergent development.
For respondents, however, the importance of the body remains central, although in absentia. Its centrality emerges in an oblique but constant way in many studies carried out on the use of telecommunications.

But here I argue that the importance of the body resonates also from the importance that respondents attribute to the dimension of convenience.
Elsewhere I argued that convenience might be considered as a major need and at the same time a true principle which governs the use of ICT.
In the majority of quantitative and qualitative studies carried out in these two decades on the technologies of information and communication, convenience was a recurrent motivation to use these tools (Fortunati [19], [20]; Chiaro and Fortunati [5]).
But what is there behind convenience if not the reasons of the body, that is, the concern to avoid useless efforts and fatigue caused to it?
A concern regarding bodily efficiency and health? The notion of convenience in the use of ICTs represents the application of Occam's Law.

The convenience law, which is the systematic behavior to save energy and avoid causing fatigue to the body through the use of these technologies, is connected with the reasons of the body, which in the context of the decision making process regarding the question of whether to use a device or to resort to body-to-body communication, which device to use and how much to use the device in question becomes a priority.
This law is particularly evident in the research carried out in the period of the diffusion and appropriation of these devices, that is for the mobile phone and the internet the second part of 1990's.
This law puts in motion, however, a chain of contradictions in the sense that the body, which in principle inspires actions and strategies to save it from fatigue and efforts, often ends up, in reality, being sacrificed.

5 Conclusion

By presenting and discussing the example of domestication theory I tried to show that: 1) domestication theory is powerful because it is highly metaphorical and so emotional; 2) the cross-fertilization of this theory with domesticity theory has allowed the development of a variety of research studies both qualitative and quantitative on the emotional integration of ICTs in everyday life. Furthermore, by presenting and discussing the notion of emotion as an infrastructure of body-to-body communication, I tried to show to what extent this perspective proposed by Star and Bowker [62] is seminal in detecting what happens to emotion in mediated communication.

Body-to-body and mediated communication represent broad fields which increasingly require multidisciplinary approaches and challenges traditional methods of research.
The problem is that it is not easy to merge different traditions of investigation, theories and methodologies.

Recently there have been some attempts to merge inside the same strand different sociological approaches – namely the Sociology of Technology and Science, Communication studies, Mass Media studies, ICT Users' studies (Boczkowski and Lievrouw [3]; Lievrouw and Livingstone [42]; Fortunati [18]).
And this paper represents another attempt to cross-fertilize the tradition of ICT user studies with the field of cross-modal analysis of Verbal and Nonverbal Communication. Only the future will show if these operations will open a fruitful dialogue among different disciplines.
However, it is a matter of fact that it is really necessary to merge different traditions in order to mutually correct inconsistencies and errors.
From this analysis has emerged the necessity to strengthen the investigation of electronic emotion both at a theoretical and an empirical level and to develop further this cross-fertilization between these two fields of research, which until yesterday were very disconnected.
Theories with heart are needed in order to understand properly processes so complex as body-to-body and mediated communication.

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