

between meaning and sense should also be a system's switch: there is no smooth transition from psychic systems (consciousness) to social systems (communication) because culture is placed within social systems rather than considered a bridge between psychic and social systems. Obviously culture itself is a product of communication as well and restricts communication to the issues discussed, the opinions expressed, the values guiding behavior, etc. By contrast, Palmaru states that "personal sense structures guide our observations, decisions and actions" (§37). Again it seems that there is no transition between psychic and social systems but a kind of Gestalt switch. Therefore, it is useless to model the transition between psychic and social systems. Instead, each of them operates autopoietically and they perturb each other. **Rather than describing what a psychic system and personal sense is or what a social system and meaning is, would it not be better to conceive of them as observer-related perspectives? (Q3)** From the perspective of a social system, meaning and culture are process results of communication. Individual sense structures then derive from cultural meaning. From the perspective of a psychic system personal sense results from consciousness. Cultural meanings then derive from coordinated personal senses or sense structures.

« 7 » Palmaru's argumentation is rudimentary; the examples he uses to demonstrate his approach include the use of language, but mostly of single words only (§47). More importantly though, there is no effort to elaborate how his approach can be applied to empirical research. While this is a minor issue only – theoretical groundwork has its own value and need not be empirically applied immediately or directly – **I wonder what the pragmatic consequences of Palmaru's theoretical effort are? (Q4)**

« 8 » Finally, I cannot shake the impression that the author discusses problems that have already been addressed (and even been solved) in the constructivist literature, such as Schmidt (2011). Also, the relevance of communication for RC has already been successfully addressed by, e.g., Klaus Krippendorff (2008). **What are the reasons that Palmaru chose to ignore the more recent turn to overcome the shortcomings of earlier stages in the discourse of (radical)**

cal) constructivism? (Q5) Also, Palmaru's eclectic strategy of referring to various constructivist authors and selecting their seemingly weak points creates opportunities for intervening and offering his own solutions to the problems he sees. **Perhaps it would have been a better strategy to discuss solutions provided by these scholars rather than their alleged problems? (Q6)**

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Linking Social Communication to Individual Cognition: Communication Science Between Social Constructionism and Radical Constructivism

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> Upshot • The potential impact of Palmaru's attempt may bring about a breakthrough across all fields of social science. However, in order for the attempted integrated theory to arrive at a full conceptual operationalisation of the interplay between the two kinds of autopoietic systems, i.e., human consciousness and social systems, a much clearer differentiation is needed of the respective embodiments, cognitive architectures and evolutionary fitness landscapes of these systems.

The challenge of theory integration

« 1 » In his sketch of the short history of the 50-year evolution of communication science, Raivo Palmaru depicts radical con-

structivism (RC) as a fundamental future component of the field. He posits that this component is still largely underappreciated by the majority of communication scholars because of the deep positivist roots of the discipline, yet it is central to its proper focus of interest and must be convincingly integrated into its theoretical underpinnings. While Palmaru's interests remain confined to communication science, I believe that a similar diagnosis – featuring the missing epistemological component, its deserved centrality and its current collision with the positivist roots of the discipline – has been (and is still) echoing across all the fields of social science. Thus far, however, the postulated centring on human cognitive operations does not typically seem to lead to theory integration and rebuilding. Instead of reforming their underlying frameworks so that all their respective phenomena of interest become embedded in – or interrelated with – an understanding of the subject's cognition, most, if not all, of the social disciplines tend to split into halves, breeding younger, lighter and subjectivity-centred versions of themselves. This reproduction tends to be marked by a split in naming. The positivistically-rooted older disciplines appear to keep the name of "science" (e.g., management science, political science and organization science), while the rebellious youngsters differentiate themselves as "studies" (e.g., management studies, political studies and organization studies).

« 2 » I would be careful, however, about formulating the central argument in the way that Palmaru has phrased it: "communication and social processes cannot be understood unless models describing them are based on the individual and his or her consciousness" (§11). The phrase "cannot be understood" here seems to be an obvious overstatement: **What about scholars, from Auguste Comte to Niklas Luhmann, who have derived their own sense of understanding of communication and social processes precisely from their conceptual differentiation from human consciousness? (Q1)** What we can say at most, I believe, is that the proposed founding of the discipline on individual cognition opens a path to a certain kind of understanding that is unavailable from the other theoretical position. Ironically, this formulation renders

both the feasibility and constraints of understanding (a human cognitive operation) clearly contingent on a specific configuration of (scientific) communication. But such a contingency seems to be an example of the very entanglement for which the proposed theory of communication should be able to account, once it has successfully integrated radical constructivism and social constructionism (SC).

Consciousness and communication: From further disentanglement to greater symmetry

« 3 » I read Palmaru's conceptual attempt as aimed at theory integration, not at splitting the discipline. If this reading is correct, I applaud such a goal greatly. Palmaru departs from a Luhmannian theory of social systems, taken as the piece of theory that is closest to RC and yet still firmly attached to the mainland of communication science, which seems to be a perfect place to start from if one aims to establish a solid linkage between the two conceptual frameworks. What I find a bit less convincing in the target article, however, is whether the progress towards RC, a flip from a top-down to a bottom-up account of communication, is actually being made. Or, to put it differently, *is the departure from the theory of social systems actually happening? Might it be that the compatibility was so evident and the integration so seamless that the task has been accomplished already?* (Q2)

« 4 » The proposed differentiation between "sense structures," as a construction of consciousness, and "meaning," as a corresponding construction of communication (§36), does not seem particularly weighty per se. I concur with Palmaru's conception that in order for the two models of autopoietic systems – that of communication and that of individual cognition – to become fully conceptually interlinked, they must first become fully conceptually differentiated. However, the differentiation of the construct of "meaning" (in Luhmann's account of which, consciousness and communication interpenetrate) has in my view already been sufficiently clarified by Luhmann himself. Admittedly, this does not happen consistently throughout all Luhmann's works, and the fragment cited by Palmaru (§34) does not ponder this particular difference

(though nor does it deny consciousness's participation in meaning formation). The clarification of difference is best formulated, in my view, in the following passage, one of the most poetic parts of Luhmann's writings:

“[...] the psychological selectivity of communicative events in the experience of the participants is something entirely different from social selectivity, and by paying but little attention to what we ourselves say, we already become aware of how imprecisely we must select in order to say what one can say, how greatly the emitted word is already no longer what was thought and meant, and how greatly one's own consciousness dances about upon the words like a will-o'-the-wisp, uses and mocks them, at once means and does not mean them, has them surface and dive, does not have them ready at the right moment, genuinely wants to say them but, for no good reason, does not. If we were to make an effort to really observe our own consciousness in its operations from thought to thought, we would certainly discover a peculiar fascination with language, but also the noncommunicative, purely internal use of linguistic symbols and a peculiar, background depth of the actuality of consciousness, a depth on which words swim like ships chained in a row but without being consciousness itself, somehow illuminated, but not light itself.” (Luhmann 2002: 166)

« 5 » I see no harm in giving distinct names (instead of the unitary term "meaning") to the constructions arising from the "background depth of the actuality of consciousness" and the constructions surfacing on top of these like "ships," as metaphorically pictured above. Moreover, with some reservations over a possible confusion or overlap with the concept of "sense-making," I find the "sense structures" versus "meaning" distinction potentially useful. Still, I am not sure whether such a conceptual differentiation suffices to extend Luhmann's theory of social systems towards the bottom-up perspective of RC. This is particularly the case if it is simply followed by the conclusion that Luhmannian "background depth" expresses, as Palmaru puts it, "structures arising in a conscious system" (§44) by means of communicational offers, which, once accepted, form instances of shared meaning, which further aggregate and self-organize into more stable patterns that in turn start

to guide the expression of the following communicational offers. What follows from the communicational offers onwards, in the above summary, seems like a paraphrase of Luhmann's theory, which poses the question of what exactly has changed between Luhmann's and Palmaru's accounts. The shift does not occur in attributing cognitive activity to consciousness – Luhmann himself attributes selection-making activity to consciousness all along (although it is not something he elaborates on). It seems that the most important shift, then, is between Luhmannian selection-making and Palmaru's "expressing," which may seem like a mere change of poetics if it is not conceptually fortified. On top of this, the interplay between the structures arising in consciousness and the guidance performed by the self-organizing societal patterns remains as yet largely undetermined.

« 6 » In a further development towards the goal of theory integration the two autopoietic systems (consciousness and communication) should probably become much more deeply grounded in their respective embodiments. Moreover, since the difference of their internal sourcing seems to be the key, they should also be consistently modelled, in their conceptually disentangled forms, as autonomous cognitive agents operating in the context of their respective fitness landscapes. Only on the basis of such a modelling can we put them back together in a mutual interplay (not a trivial task in terms of constructivism!) that may reveal more about their interdependencies, possible inter-configurations and the relative strengths that the two kinds of sourcing are capable of exerting upon each other. Without such a conceptual modelling, I am afraid that we are not likely to move far beyond mere poetics. Changing the verbs from active to passive may bring about the image of individuals expressing themselves and acting freely in society (bounded merely by the constraints exerted by the initial socialisation) rather than being pulled by its strings, but such a change alone does not seem to automatically grant any significant degree of integration of the entire theoretical construction to the conceptual tradition of RC.

« 7 » I believe that, if the aim is a comprehensive integration of the Luhmannian account with the tradition of RC, both

kinds of autopoietic agency distinguished by Luhmann, that of human consciousness and that of social communication, should be initially conceptualised symmetrically and approached as *sui generis* individuals, which are cognitively active subjects. The idea of approaching social systems as embodied, cognitive individuals may seem surprising or controversial, but the theoretical assumptions justifying such an approach have already been expounded by Lenartowicz, David Weinbaum and Petter Braathen (2016a, 2016b) and, on a more abstract level, by Weinbaum and Viktoras Veitas (2016). Yet paradoxically, the task may prove even more controversial with respect to human consciousness, producing the above-mentioned “sense structures.” If the mutual influence of the individual expression and social constructions is to be demarcated, the autopoietic mind must be conceptually distilled from its interpenetrating social constructions. **But how do we go about performing such distillation? (Q3)**

« 8 » I see a solution for the above in a conceptual split, distinguishing two aspects of human sociality, attributed respectively to the two autopoietic systems: the mind and the social system. It has been taken almost as a dogma that, since humans are a social species, an individual human is unthinkable outside the context of the social. My argument here is likely to swim against the constructivist current, not to mention the social scientific current, but I wish to propose that such a conceptual distillation is indeed possible – and, in fact, much needed for theoretical, pragmatic and ethical reasons. I will not argue against the “human is a social species” concept, but I wish to differentiate between a social species in the organic, animalistic sense and the interconnectivity of social personas in social science’s sense. While the former expresses its sense structures, co-opting language and other available symbolic tools towards its own autopoietic self-perpetuation and survival, the latter (personas) self-organize out of the usages of these tools – and aggregate up into larger self-organizing social constructs. Human beings operated in the former mode of their sociality and expressiveness – alinguistic, asymbolic and organic – for about two million years of their pre-historic evolution. This long-accumulated genetic baggage was

not suddenly abandoned with the development of language. Instead, this development has been gradually incorporated into their instinct-driven and organic psycho-socio-physical embodiments, which happened to be there earlier and were thus in a position to exert evolutionary pressures on whatever came next. On the other hand, the sociality and expressiveness of a social persona is a vehicle through which the self-organizing coherency of the other, social, autopoiesis is being maintained. If we agree to approach social systems as cognitive agents per se, we must assume that there will be instances, or aspects, of human expression that are rather pulled by the “creatures of the semiosphere,” as I call the autopoietic constructs of the social (Lenartowicz 2016), for the sake of their own self-perpetuation, than pushed by the sense structures of the human self. To know which is which, and how much of each is actually happening in a communication, we need to see both agencies simultaneously, as two differently embodied cognitive individuals. The RC approach to human consciousness must, then, be balanced by the RC view of the social as an individuated, survival-seeking locus of cognition. The difference between the two kinds of organic and symbolic expressions of sociality, which are here suggested as perpetuating the two distinct autopoietic systems, has been beautifully captured in the recent exchange between Hugo Cadenas and Marcelo Arnold-Cathalifaud (2015a, 2015b) and Humberto Maturana (2015). To my mind, this debate – or, rather, misunderstanding – has finally settled the long-standing controversy about whether social systems are autopoietic (Maturana objecting to the proposition and many social scientists insisting upon it), demonstrating that both sides were right. They were simply addressing two different angles of the social. Maturana’s objections originated from his understanding of social relatedness as a biological phenomenon (the organic social), whereas the position summarized by Cadenas and Arnold-Cathalifaud was addressing the social as it is conceived by social sciences (the symbolic social). The difference here is not in the different disciplinary lenses being applied to the same phenomenon. Rather, it is between two kinds of phenomena, stemming from the cognitive operation of two kinds of au-

topoietic embodiments. For one, the social is an extension, or an expression, of the organic, physical embodiment of a social species. It does not form an operational closure itself. For the other, the social has happened to self-organize and evolve in a manner that has led it to spawn autonomous, autopoietic and individuating cognitive agents – the “social systems” about which Luhmann wrote.

Conclusion

« 9 » Palmaru has set out the ambitious goal of integrating the RC account of a cognitive, autonomous and embodied human individual into the core of the theoretical underpinnings of communication science. In my commentary, I have attempted to support his effort and to point out that, in order to be really groundbreaking, the integratory effort needs to include the radical disentanglement and symmetrical modelling of the two distinct loci of autonomous agency: the consciousness-laden pre-symbolic human and the communication-laden symbolic social system. A clear understanding of their respective embodiments (including their cognitive architectures, evolutionary environments and fitness landscapes) is needed for an integrated RC–SC theory to arrive at the full conceptual operationalisation of the interplay between human consciousness and the operations of social systems.

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