Interview with Jordan Zlatev

Todd Oakley (TO) You have been involved with cognitive semiotics for quite some time now. What is this thing called "cognitive semiotics"?

Jordan Zlatev (JZ)

Well, since cognitive semiotics evolved during the past two-three decades, which happens to coincide with most of my academic life, and since I have identified with it more than with any other field since about 2008, I guess that you could say that the two of us have grown up together. I am frequently asked to define it, as you do know, and these answers have also evolved over the years. Currently, I would say something like this: cognitive semiotics (to be written in small letters, since it is not the name of a theory or model), is the discipline that studies human and animal meaning-making, integrating concepts and methods from semiotics, linguistics and cognitive science, but going beyond these to produce novel theories and analyses, grounded philosophically and empirically with the help of phenomenology, in the tradition of Husserl and Merleau-Ponty. Of course, I am aware that such a longish definition reflects the way that the field has developed at my own university, where it is an independent discipline, with a PhD, an MA, and hopefully soon even a BA program, emerging in this reversed order. Thus, I currently emphasize "discipline", and not just "field", be this interdisciplinary, or even "transdisciplinary", since it is important, for us at least, to show how cognitive semiotics differs from the fields that have contributed to it: semiotics, cognitive science, and linguistics.

At the same time, I am fully aware that others may see such a characterization as too narrow and would prefer something looser. My experience is that people who take our courses or attend our conferences come above all from the three disciplines I just listed, and some prefer to identify with one of them more than with the cognitive semiotics synthesis, at the same time as they appreciate learning from the others. Perhaps also yourself? Would you consider your primary discipline cognitive science or cognitive semiotics?

TO

My history is a bit academically itinerant, as I began my career at my present institution as a "resident" linguist and rhetorician among literary scholars in an English Department, where my task was to direct our expository writing programs. In 2006, the university created a standalone Cognitive Science Department whose thematic focus is very similar to your definition of cognitive semiotics, but with the primary emphasis on higher-order human meaning-making. In 2008, I transferred my appointment to the department I helped create and have been here ever since, but cognitive semiotics is the discipline I identify with most closely, although I still work with several cognitive linguistic theoretical frameworks, such as Mental Spaces and Conceptual Blending Theory, and Talmy's Force Dynamics as the situation warrants. But some of my positions may not be completely aligned with the rank-and-file cognitive linguists. My title is "Professor of Cognitive Science," which I am fine with, but the title reflects some institutional realities of the American university system, most notably that the term "semiotics" is either not well known (my cognitive semiotics seminar is titled "Signs and Symbols") or it is identified with the zoosemiotics of Thomas Sebeok or with post-modernist critical theory. All this is to say that I consider myself a cognitive semiotician, who works at the intersection of semiotics, linguistics, and cognitive science. Like you, that split identity has become increasingly oriented toward phenomenology.

JΖ

Yes, I am also more or less at home with my split identity: also reflected in the fact that I have two email addresses, @ling.lu.se and @semiotik.lu.se. My PhD is from Stockholm University in linguistics, and I remember meeting you there in 1999 at the bi-annual International Cognitive Linguistics Conference. Then we really got to know one another in 2004 in Portsmouth, at the inaugural conference for Language, Culture, Mind - which for me was a kind of mid-way stop on the way to cognitive semiotics. When I got my full professorship at Lund University in 2012, it was still in linguistics. Even if I have tried to have this transferred to cognitive semiotics, given that I have served as director of research and higher education for it since 2015, I have so far failed. But given that I am 59 now, I have exactly a decade left to do so, if there is to be any hope for a chair in cognitive semiotics at Lund University when I retire.

TO

So how does cognitive semiotics relate to your original field of linguistics?

JΖ

My predecessor Göran Sonesson, with whom we established cognitive semiotics in Lund through a series of national and international projects in the 2000s, used to say when we quarreled, which happened occasionally, even if not too often: "Jordan, you think like a linguist!". Which is rather ironic, since Göran had a double PhD, in semiotics from Paris, and in linguistics from Lund. And I suppose that this helped unite us, since linguistics has - much more than semiotics in my experience - respect for scientific rigor and empirical validity. While semioticians tend to float out into theoretical abstractions, the linguist (in us) says: "where is your data"? The problem is, especially lately, that linguistics has been getting more and more empiricIST, not just empirical. Intuition-based analysis, misunderstood as "introspection", is officially discounted - even if it is of course practiced implicitly - and there is a constant mantra of: "corpus", "quantification", "statistics". While I disagree with the Chomskyan paradigm theoretically, I can miss it with its gradual disappearance on the horizon, since it at least reminded us to constantly ask the main question that I believe all linguists should ask as soon as they wake up in the morning: "what is language?". And then, to start quarreling about our preferred answers: biological instinct, computational mechanism, social institution, particular form of consciousness etc. In fact, the a-theoretical and a-historical trend in much of modern linguistics is one of the things that pushed me toward semiotics, at first, and then when seeing the opposite problem there, to urge for the formulation of a conceptual-empirical synthesis in cognitive semiotics. With Göran and others, we have in fact entrenched this synthesis as the so-called "conceptual-empirical loop", one of the principles of cognitive semiotics: no matter on which side you start, make sure that your key concepts are both reflected upon and then clearly defined, as well as implemented in empirical research which aims to explicate them further. If we get to methodology later, we can talk more about this.

One more point on why cognitive semiotics is not linguistics though, which I have also inherited from Göran: the need to resist "linguistic imperialism", against the territories of other sign systems, and phenomena in general. This can manifest in them being taken over by excessively broad conceptions of language, as when many gesture scholars currently take it for granted that "gesture is part of language", while others, especially in cognitive linguistics, would be happy to include pictures as well. Often, studies of such cross-semiotic meaning-making go under the heading of the much too ambiguous term "multimodality", rather than acknowledging first the partial autonomy of different sign and signal systems, before investigating their interactions.

The other kind of "linguistic imperialism", that Göran admonished me the most, is however even more pernicious: it is when the (presumed) essential features of language are projected onto other sign systems, a tendency that probably started with Saussure, where language was taken to be the most perfect sign system due to the "arbitrary" nature of its signs, and to its "syntagmatic" and "paradigmatic" structures. And then these were projected onto everything from pictures to clothing, as within one of the major schools of semiotics, dominating what is perhaps the most popular textbook on the subject, by Daniel Chandler.

To counteract these negative trends, I think it is important to regard language as one, and indeed, very peculiar, semiotic system, unique in some of its properties, and essential for human communication, thinking and culture. And importantly, as different from at least three other universal human semiotic systems: gesture, depiction (picture-making, in all its forms) and music. In which ways these systems differ, and how they interact in polysemiotic communication (polysemiosis), is one of the key topics of cognitive semiotics, and acknowledging these concepts, and not blurring them under the fuzzy "multimodality" can be seen as one of the key features of the cognitive semiotics discipline.

ТО

One of the reasons I cut my teeth on classical and modern rhetorical theory so early in my graduate education is precisely because I was more interested in applying theories of language and other semiotic systems from various domains of use. Language is such a peculiar semiotic system to the degree that it is an engine both for interaction and for mental time travel. Not that other semiotic systems are incapable of these, but language seems especially well designed for it. It is in the relation of language theories to specific domains of practice (political rhetoric, economic theory, law, religion, etc.) that one can begin to see whether an approach has explanatory power. But sometimes this kind of practice can give the impression of linguistic or disciplinary imperialism: "You thought you were doing politics, or religion, or science but what you are really doing is rhetoric, linguistics, semiotics..." I hate this approach and try to avoid it as much as humanly possible. So, I share your sentiment that cognitive semiotics is at its best when it conducts itself modestly (how is that for personification?).

I also share some of your concerns about the overweening quantitative turn in linguistics, for sometimes a purely empiric-ist approach sacrifices explanation for mere description. I just co-authored an article on the rise of nominal uses of shock in macroeconomic thinking, which attempts to integrate both quantitative and qualitative approaches. While I am proud of what we achieved, I can say the peer-review process was one of the most difficult of my long scholarly life, and not necessarily in an efficacious way. This was in part because it was exceedingly difficult for the linguist-reviewers to even acknowledge that the explanatory power comes not simply from the quantitative measures pinpointing a precise change in usage among economists and econometricians, but that such a change reveals something fundamental about the way different economists think about the initial state of an economy. What is more, how such persons think about an economic initial state has significant implications for economic policies that affect what, how, and why we do cognitive semiotics. So it appears we both gravitate toward cognitive semiotics for its inhibited "imperial ambitions," but aside from its "institutional modesty." But what, according to you, are the most important features or principles of cognitive semiotics that distinguish it from other disciplines?

JΖ

In a few papers from the 2010s, I reviewed the field, and based on what people engaged in cognitive semiotics actually were doing, in places like Aarhus University, Copenhagen University, UMCS University in Lublin, as well as our own alma maters, I came up with a list of five features, most of which were methodological: (1) the mentioned conceptual-empirical loop, (2) something that I then called "methodological triangulation", even if this was not the best term for the kind of epistemological and ontological pluralism that this was meant to denote, (3) influence from phenomenology, (4) a dynamic concept of meaning (making) and (5) transdisciplinarity, understood as a more stable constellation of academic and non-academic actors focusing on the topic in question, in our case: meaning-making.

This was fine at the time, and I suppose representative of the research that was reported on our first international conferences: 2014 in Lund, 2016 in Lublin, 2018 in Toronto. But as I mentioned at the beginning of our conversation, I have felt the need to be more idea-focused in defining cognitive semiotics lately, to give more of a sense of direction and identity for those of us engaged in it, hopefully without becoming too prescriptive or restrictive. So when I was recently asked to contribute to a recent volume in the series Open Semiotics with an updated characterization of cognitive semiotics, I kept the number of five essential features, but formulated the first four as content-focused principles. And the first of these is: the primacy of subjectivity. The term of course is ambiguous, and rather provocative, but I ultimately settled with it rather than "consciousness" or "intentionality", which are even more confusing. But the intention is the same: that meaning presupposes not notions like "function", "representation" or "computation", but qualitative experience as such. What could be called, following the philosopher Thomas Nagel's reflections on such experience in non-human creatures like bats, "what-is-it-like-to-be-ness". This corresponds to the phenomenological concept of intentionality, which implies both a kind of outward-directedness, and simultaneously at least minimal awareness of selfhood. As I see it now, this feature is the ultimate bedrock of, or "threshold" for meaning-making, or semiosis. And who are the subjects? Apart from ourselves, most and according to some biological philosophers like Godfrey-Smith, perhaps even all animals, but not plants or other life forms. But this is an open question, which we do not need to answer now. It is sufficient to establish that it is not sign-use per se, nor language, nor culture or other such higher forms of semiosis that is the basic precondition for meaning, but rather subjectivity itself, and thus its fundamental status for cognitive semiotics.

TO

We'll get to the other distinguishing features of cognitive semiotics shortly, but the emphasis on "subjectivity" as the first principle is, indeed, provocative to the broader scientific community in evolutionary biology, the cognitive sciences & neurosciences, and the philosophy of mind, given that many of the most influential members of the scientific deny the existence of consciousness and free will, or claim that they are "illusions." Certainly, if one sees the brain and body as a more-or-less closed system, then the positing of subjectivity can be accused of smuggling in the Cartesian "homunculus." Personally, I am sympathetic to many of their arguments, especially that the term "free will" is hopelessly confused and bound up with too many other issues and concerns to be scientifically tractable, but, I do think that much of the problem with these more eliminative materialist arguments are not so much the materialist claims but a temporal flattening out of human temporal experience, such that if you cannot find a precise, linear causal link between elemental processes at the scale of tens-hundreds of milliseconds with integrative processes at the scale of 2-3 seconds (the typical temporal scale of minimal conscious experience), then the existence of the experience itself is illusory. There is much neuroscientific work still to be done in generating compelling explanatory models of human higher-order cognition, which necessarily includes consciousness and subjective experience, but the idea that such an explanation can happen with brains and bodies as the only viable unit of analysis seems like a fool's errand. The unit of analysis should posit an agent-as-subject acting in a rich three-dimensional ecology. Which brings me to my follow-up question: Does this focus on subjectivity not imply a very individualist, and maybe even "subjectivist" point of view on meaning? What about intersubjectivity?

JΖ

The fact that cognitive semiotics goes against the mainstream of current physicalism is in fact one of the strongest justifications for its existence. People like the late Dan Dennett are simply "neuromaniacs", in the terms of Raymond Tallis, as they presuppose another mantra: "reduce or eliminate" - and apply this to whatever does not fit into the Procrustean bed of their conceptions of science, based on arguably restrictive takes on evolutionary theory and neuroscience. But this is the kind of dogmatism that is fundamentally non-scientific, if science is to be true to its ethos of being open-minded, and further, true to the phenomena. It is an undeniable fact that we are both subjects of experience, and do possess the freedom to make choices, even if this is a "needful freedom" in the words of Hans Jonas. Even more, as Husserl argued more than a century ago, objectivity can only be based on subjectivity. There is no "view from nowhere", as modern phenomenologists like Dan Zahavi and Shaun Gallagher like to point out. Notably, these are also researchers involved with cognitive science and empirical research, showing how cognitive semiotics can similarly make sense, and use, of such research.

But more broadly, and perhaps even more provocatively, I would say that the concept of a fully "objective reality" that is fully mind-independent is self-defeating, since not only socalled secondary qualities like color and smell, but everything there is, from the landscape we see outside our windows, to radiation and black holes, is part of the all-encompassing lifeworld, which we co-constitue with the help of other embodied subjects, including non-human ones. And this implies exactly what you asked about at the end of your question: intersubjectivity. Husserl reached the conclusion that reality is founded upon transcendental intersubjectivity, and I find this conclusion both insightful and liberating. Thus, when I write of the primacy of subjectivity, this implies simultaneously intersubjectivity. Since the latter is also an ambiguous concept, understood by some to presuppose the mentioned higher-order forms of meaningmaking like language, I have in some previous formulations stated that it constitutes a higher form of semiosis than "basic" subjectivity. But given how closely interrelated, or "intertwined" as Merleau-Ponty would say, Self, Other and World are, as dimensions of experience, I have more recently revised this position and maintain that subjectivity and intersubjectivity are equiprimoardial. Again, this shows that subjectivity, or intentionality, is not something that takes place "in the head", but is rather something like the glue that makes the world hold together. Other forms of meaning-making based on "representations" or sign processes presuppose this.

TO

It is worth rehearsing some additional findings from recent social cognitive development studies. If we take Piaget's stages of development too literally, we are likely to posit an egocentric primordial order that begins with physical embodiment processes, then proceeds to intra-psychological processes before developing social-psychological processes. Such an egocentric view of embodied knowledge does not fit the facts of cognitive development very well. For instance, toddlers do seem to be able to suss out and prefer socially dominant actors over their subordinates-even when the socially dominant entity is "smaller." They look longer at the smaller entity exerting social dominance, suggesting a correlation between size and importance, but that correlation is easily overridden by minimal experience. Similarly, there is some evidence provided by Michael Tomasello and colleagues that English-acquiring children appear to use the verb "see" epistemically, as in "I see," a response often to being shown something new by someone else, a psychosocial meaning that goes beyond the narrow sense-perception meaning. Or, perhaps a better way to put it: the burgeoning epistemic usage of sense perception verbs issues from primordially interpersonal encounters. There are even lower-level findings from insect studies that suggest the place cells of a fruit fly are more active when detecting spaces occupied by a related fruit fly than by the space itself or the space occupied by an unrelated fruit fly-an interaction of spatial orientation with histo-compatible pheromonal processes. Of course, this is far afield from cognitive semiotics, but it does suggest that the intersubjective (to the extent that a fruit fly counts as a subject) is bound up with the subjective. So, I agree that subjectivity and intersubjectivity are of a piece.

My invocation of fruit flies, however, brings up a new problem for cognitive semiotics, namely what different kinds of levels of meaning-making, or semiosis, are there? For surely, we do not wish to reduce them all to "one thing", especially for something as rich as subjectivity.

JΖ

No, we do not. And this preoccupation with "levels" or "stages" of meaning is what I now regard as one of the defining features of the discipline. Some accounts may be more empirically oriented towards ontogenetic development, such as those by Piaget and Tomasello that you mentioned. And even if these are somewhat removed from cognitive semiotics proper, they have been and continue to be influential. For example, Piaget's work has been key for Sonesson's definition of the sign concept, to which we will probably return to later. Other stage-based accounts have dealt with evolution, and the most important one of these for cognitive semiotics has been the four-stage macro-evolutionary theory of Merlin Donald. This starts with an episodic level that is shared with other primates, and proposes that human uniqueness emerged not with language, but, in the spirit of Aristotle, with mimesis: the ability to both form mental imagery and to "externalize" this with the body in action and pantomime, presumably over a million years ago based on the paleontological evidence. Only more recently, perhaps just a 100,000 years ago, did human languages as we know them today evolve on top of this, leading to what Donald calls a "mythic stage", as narrative and storytelling were a key function of language use, perhaps even shaping its universal features. And much more recently, durable representations like pictures and eventually writing systems led to the current "theoretic stage". Or perhaps we are already in a post-theoretic stage, swamped by the technologically generated "multimodal" signs of social media and such.

Anyhow, on a metalevel, one can make the following generalization: not all meaningmaking is of the same kind, and at least some kinds can be ordered hierarchically, so that higher levels presuppose lower ones, but do not obviate the need for them, but rather engulf them and interact with them. In my own theorizing, I have formulated this in terms of one or another version of a model called the Semiotic Hierarchy. The most recent take on this is compatible with the principle of the primacy of subjectivity that we discussed before. If this is "rock bottom", what are the higher layers? One inspiration to think about this is another hierarchical model from cognitive science: Elvin Tulving's three levels of memory and consciousness. The memory on the lowest level is procedural, and the meaning-making, on our terms, is focused on the concerns of the present, so as to act and respond in accordance with the situation at hand. On the next level, one may have a memory for facts and can at least to a degree reflect perceptually given objects and events, so as to distinguish between parts and their composite whole. But one cannot yet recall scenes from the past, or to imagine such taking place in the future, or just in fantasy. Such "episodic" memory and consciousness was assumed by Tulving to be unique to human beings, but more recent studies have shown rather convincingly that a diverse set of animal species, from scrub jays to rats and primates do have richer experiential lives than previously thought, including at least some capacity for episodic cognition. Note, however, that such "mental imagery" alone does not amount to mimesis as we discussed above, since what is lacking is the bodily, or otherwise, forms of expression of this imagery, in the form of a representation. In other words: of signs, as understood by Sonesson, myself and many others (though not all) within cognitive semioticsfbelieve. Thus, the highest levels of the Semiotic Hierarchy are reserved for sign use (signification), language - the most complex panhuman sign system, and perhaps ultimately for polysemiosis, the combined use of different semiotic systems, including gesture, depiction, and music.

From all this follow two other features of cognitive semiotics. The first is that mind, or consciousness, is more basic than sign use, and a precondition for it: the "mind before sign" principle, which as far as I see is held by all in cognitive semiotics, even if they understand "mind" and "sign" somewhat differently. The second is that we need to consider language as one semiotic system among others, to compare it with them so as to determine the essential properties of each, and to study through detailed empirical studies how they interact.

TO

Thank you for that critical clarification-semiosis and sign use are not identical. The "everything-is-a-sign" puts the scientific enterprises of descriptive and explanatory adequacy at risk, much like the similar impulse among rhetorical theorists to think of "everything-is-rhetoric." It is perhaps better to say that, for human beings, signs are implicated in just about everything we do- affectively, behaviorally, and cognitively. But these sign processes are "bootstrapped" by a range of pre-signifying and socially embodied processes. Such distinctions call for better descriptions of human and non-human behaviors, sensing overlap and differentiation that can be calibrated again and again as new empirical findings accrue.

So now that we have a better understanding of signs as part of a semiotic hierarchy, let us return to the question of semiotics as a "brand" within the academic disciplinary formations. When linguists (especially in the Anglo-American) encounter the term "semiotics," they tend to regard it as either a "superannuated" structuralism or a "meaning skeptical" poststructuralism in which signs refer to other signs in endless self-referential chains. As you mentioned above, cognitive semiotics emphasizes the principle of "mind before sign," a principle that does not sit comfortably with either formation. Can you elaborate on this principle and its relationship to the semiotic tradition and the cognitive sciences?

JΖ

Maybe this is the perception of semiotics outside of it, but hardly for those who practice it. The most influential approach in current semiotics, also in the Semiotic Society of America, is undoubtedly one that follows the theories of Charles Sanders Peirce, in one interpretation or another. This is a "realist semiotics", in which signs not only exist in and by themselves, independently of the social conventions that are the foundations of structuralist semiotics, but in some radical formulations are the ultimate constituents of reality. The Peircian schemas of Firstness, Secondness, and Thirdness, and the corresponding triad Representamen, Object, and Interpretant are incredibly versatile in their application to just about any process, from protein synthesis to language-to-language translation. I don't mean to belittle such research, since it has given rise to many insights, generalizations, and diverse new fields like biosemiotics. But as we are looking for defining features of cognitive semiotics, the "mind before sign" is a pretty clear watershed. For semioticians at large, and that would probably include the structuralists and post-structuralists you mention, sign processes are at the foundation, and they can be said to generate minds, even if this be some sort of illusion: "no sign, no mind". Based on everything that we have discussed so far, it should be obvious that the reverse is the case in cognitive semiotics: basic subjectivity and its pre-reflective self-consciousness is already a form of "mind". The capacities for reflection and imagination that come with higher levels of semiosis - to remind once again, understood as meaning-making in general, and not as sign use in particular - are even more obviously features of "mind". Also, in accordance with modern cognitive science, even if most of its practitioners refrain from the more qualitative aspects, and refrain from using the C-word, consciousness. Still, I think that cognitive semiotics is close to cognitive science in this respect, since all these forms of mind, including remembering, anticipating, and imagining, can be understood as not requiring sign use, but as preconditions for it.

TO

And let's not forget attention.

JΖ

Of course, that is a fundamental feature of consciousness, which Aron Gurwitsch insightfully described as a dynamically shifting field of light: with theme, ground, and currently irrelevant margins. The last is important, as it captures the fact that we are capable of quickly shifting focus and making something thematic that was just a moment ago only marginal, say the feeling of my feet against the floor now.

TO

Why are these features of mind preconditions for sign use? And how do you define this more specifically?

JΖ

On all accounts, from the most theoretical, to the most naive everyday ones, where "signs" are commonly understood as those we see on the streets, the phenomenon must consist of at least two parts: let us call one of these Expression, the more tangible part, which when encountered denotes something else that is more important: Let us call this Object, in the most general sense including both things and events, concrete things like chairs, and abstract ones like freedom, existing ones like Sweden, and non-existing ones like unicorns. Then we may regard what is

hardest to define, the Content, as the way in which the Expression presents, or construes, the Object. For example, near-synonyms like "dog" and "mutt" denote the same Object, but have different Contents, or construals. To a degree this corresponds to Frege's classical *Bedeutung*, but generalized beyond factually existing referents, and *Sinn*, generalized beyond language, and not understood in Platonic terms. Two different pictures (in any medium, including photography) of Donald Trump will inevitably construe this pathetic representative of our times in different ways.

And, for all laymen, if not for all semioticians, as mentioned before, or philosophers of language, the natural next question is: where do these processes of "denoting", "construing" and so on take place? And the natural and easy answer is: "in the mind". Which of course opens another can of worms, but unlike the majority of cognitive linguists, we are better prepared to deal with these questions, since we have largely unpacked the notion of "mind" already, as we have suggested in our discussion so far. For example, we should not confuse the basic processes of attention in perceptual consciousness that we mentioned, with those of signitive (sign-based) consciousness, even if the two are related. It is one thing to construe an object as such and such in perception, say the bottle of *julmust* (what we drink around Christmas in Sweden) in front of me as half-full, and another thing to actually name it "half-full", as opposed to "half-empty". In the latter case, we have latent, sedimented construals as lexical content, one of which is evoked to describe a particular situation for the sake of communication, or what could be called pragmatic construal. These three different kinds of construal: perceptual, semantic and pragmatic have been notoriously mixed up in cognitive linguistic theorizing, but with the help of the distinctions that we just made, it becomes much clearer.

Also, especially when it comes to the signs of language, where the dominant so-called "semiotic ground" that helps establish the relation between Expression and Object is that of conventionality, it is important once again to evoke the intertwining of subjectivity and intersubjectivity. While there are always "private", or rather *personal*, associations in meaning-making, including in sign-interpretation, the core Content of linguistic and other predominantly conventional signs is shared by the members of a community and is normatively binding. This is to some extent the case also for the two other types of signs: those for which the dominant ground is resemblance, so-called "icons" such as pictures, and those where it is contiguity or closeness in space-time, so-called "indexes" such as pointing gestures. Why do these presuppose intersubjectivity as well? For pointing gestures this is rather obvious since they rely on joint attention and a good deal of social conventions on how to use them. But one can say the same to some degree also for how to communicate with pictures: the objects depicted need to be recognized as belonging to a shared lifeworld, and structurally oriented semioticians like Umberto Eco were at least in part right that to be able to interpret them reliably, we need some shared "codes", which is again a kind of sedimented content.

Note, however, that this is not resuming the "iconicity vs. conventionality" wars that raged some time ago, where Sonesson and Eco were on opposite sides. In fact, Göran Sonesson's sign concept, very much along the lines I outlined above, can help resolve this, as it implies that the three kinds of grounds: symbolicity (understood as conventionality), indexicality, and iconicity should not be understood as mutually exclusive, but as complementary in practically every case of sign use. That is also why I was reserved above when mentioning "icons, indexes, and symbols" - these are not to be understood as mutually exclusive categories of signs, but at best as idealizations, based on the predominant semiotic ground that is involved in each particular case of sign use.

And a final point on why not only consciousness as a basic process of subjectivity or attention, but also a degree of *reflective* consciousness is a precondition for sign use: it is not sufficient to just have established a link between Expression and Object, either innately as in many animals' alarm calls, or acquired, as in classical conditioning. Unless there is also at least potentially conscious understanding of this relationship, a kind of "insight" that the Expression in fact "means" the Object, the semiotic vehicle in question: a vervet's "eagle" cry, or Pavlov's alarm bell, is a *signal* and not a true sign. While this is of course controversial, I hold that there is evidence from this signal-to-sign transition taking place in the second year of life in children, and in a few special non-human animals like the bonobo Kanzi that have been patiently taught to use signs. And that this transition marks a turning point in human evolution, for better and for worse.

TO

On that final signal-to-sign transition, which I agree is critical to cognitive semiotic explanations, some recent empirical studies of feral bonobo "peeps," suggest that this prevalent call type shows greater functional flexibility than the functional fixedness of, say vervet, alarm calls. The same "peep" is used in a wide range of situations, with subtle and unique acoustic and timbral differences for situations that are positive, negative, or neutral. Here we see something like the beginnings of the kind of functional flexibility: the ability to "construe" an expression relative to an intersubjective situation-which would count as signification. I am not prepared to say that this is a full-blown instance of signification "in the wild" (as opposed to domesticated populations), as evidence of reflection is not forthcoming, but it does seem like the beginnings of a mind-before-sign phenomenon, a transition of sorts between signals and signs. In some respects, we might even suggest that these bonobo peeps are conventions, or as you and I like to call it "sedimentations," commonplace, stereotyped ways of linking emotional valences to states of affairs among the bonobos' lifeworld. This brings me to the next question about the notion of sedimentation. You have developed and applied with several colleagues (including myself) a model of meaning known as the Motivation and Sedimentation Model (MSM). Can you give a description of the model and its rationale for those who are unfamiliar with it?

JΖ

On the distinction between signals and signs, I agree that there very well may be intermediate cases, also in human communication. The semiotic system of gesture mentioned earlier, for example, is non-homogeneous. While so-called emblems like "thumb-up", and most iconic (resemblance-based) and pointing gestures show the necessary features of signs, there are others like so-called "adaptors" that do not. My student Alexandra Mouratidou is studying these now, with respect to how they are used when people motivate the choices they have made, or at least think they have made. Gabriele Giacosa is studying music as a semiotic system that is likewise highly non-homogeneous in this respect.

But yes, both of us used the term "sedimented" a few times before, in the meaning of both conventionalized in an interpersonal way and what cognitive linguistics call "entrenched", in an individual, personal sense. Apart from being based on a fitting metaphor: particles in water sediment downward, and with time this gives rise to a gradual rise, upward (as noted by Peter Wolert), the notion was used theoretically by both Husserl and Merleau-Ponty to express relatively stabilized meaning structures, arising from dynamic processes, again both on the level of an individual lifetime, and over generations, in history. During the past decade, we have found ourselves in the need to develop this basic idea further and to link it with the different levels of meaning, both pre-signitive and signitive, that we discussed before. Hence, the Motivation and Sedimentation Model.

To be as brief as possible, since we have already chatted for quite a while, this has three levels: the Embodied at the bottom, the Situated at the top, and the Sedimented in the middle. The Embodied level consists of universal human semiotic capacities like perception, imagination, and analogy-making, which allow and motivate expressive acts on the Situated level of actual discourse. Which then, like the particles in the water mentioned before, sink into the Sedimented level, and form schemas, rules and norms. These on their part, co-motivate the acts on the Situated level, which are thus always grounded both in universal, experiential and bodily forms of meaning-making and in culture-specific and normative forms. What differs, as with the semiotic grounds that we talked about before, are the proportions, or strengths of these motivations. In this way, we can, for example, model the difference between more novel metaphors, as in poetry, and more conventional, run-of-the-mill metaphors, many of which have lost most of their metaphoricity. Or other phenomena, such as different kinds of normativity on the three levels, and their interrelations. Or as in our joint work, the interactions between bodily motivations and cultural norms in a sequence of motivation and sedimentation loops in the origins of complex semiotic phenomena like money. We need not get more technical here, as the main thing is to see how, in the general spirit of cognitive semiotics, MSM aims to capture the dialectics of meaning as process and structure, as universal and culture-specific, as pre-signitive and as sign-based, as pre-linguistic, and as language-based, as interaction and as representation. Note that these form dichotomies that are usually regarded as mutually exclusive. In virtually all of our studies, we aim to show that they are not.

ТО

Thanks for that clear description of MSM. I would just add to your account that our recent study of money emphasizes the peripersonal role of embodiment in the form of body adornment. It is not just the body but the body as a site of interpersonal modes of signifying social positions, such as "bearing credit," that shape many, if not most, of our normative interactions. Of course, body adornment may be regarded as a "multimodal" means of communication. Multimodality is currently a hot research topic in all the language sciences, but as you suggested in passing earlier, you have been critical of the term's use and argue that one should distinguish multimodality and what you call "polysemiosis". Can you elaborate on this?

JZ: Like "sign", the term "multimodality" is overused in the field, and has been inflated to unreasonable proportions. As we have discussed so far, we try to give clear, and circumscribed definitions of key concepts in cognitive semiotics, and in this way prevent such inflations. On some other occasion, we can discuss how we have applied this to four other notions that have similarly been overextended: narrative, translation, metaphor and metonymy. Each of these has been applied so broadly in semiotic and cognitive linguistic quarters, that one can ask: "What text is *not* narrative?", "What interpretation is *not* translation?", "What mental association is *not* metaphor (or metonymy)?"

But back to "multimodality". The main problem of the term is first that it conflates over at least three traditions where it has very different meanings. In the psychology of perception, it means the combination of different sensory modalities, like when I now take a sip of julmust from the now nearly empty bottle, I combine its taste, smell, look, and even haptic sense on my tongue. In gesture studies, the term is usually applied to the "modalities" of speech and gesture, often assuming these to be two sides of the coin of language, claiming this to be inherently "multimodal". This is rather premature from our point of view since one can demonstratively use language without gesture, and vice versa. And in Halliday-inspired social semiotics, multimodality concerns the combination of different "modes", or "semiotic resources", which can be anything that plays a role in expression and interpretation: the movement of the hands, the gaze of the eyes, the colors on the pallet, the texture of the sand on which I am drawing, the clothes I am wearing - as well as the words I am speaking, the tone of my voice, etc. As you can see, there is no limit, which makes "mode" a highly nebulous notion, and "multimodality" even more so, since it also conflates over the first two meanings. This ambiguity does not make for good science or even communication between researchers. So at least in our cognitive semiotics group, we reserve multimodality for the first of the three senses that I listed above: the combination of different perceptual senses. In fact, the senses are so strongly inter-knit, that it is almost a matter of synesthesia, as if we, for example, literally hear colors, and taste shapes. So I am not sure that expressions like "a sharp taste" are in fact metaphorical.

As for *polysemiosis*, this as I mentioned earlier is reserved for the combination of different semiotic systems, making the simultaneous use of gestures and language a matter of polysemiosis, rather than multimodality. Well, if the gestures are perceived visually, and language is expressed through speech, then it is *also* a matter of multimodality, but this is in principle an orthogonal dimension. The gesture could be also heard, as in handclapping, or felt on the body, especially if the audience is visually impaired. And language can be perceived visually if it takes the form of a signed language. So as you can see, by defining polysemiosis and multimodality this way we have de-conflated two phenomena that are commonly conflated, and thus confused. And we open the doors for investigating different forms of polysemiosis. What kinds of semiotic systems are there, apart from language and gesture? A third general, and universal, human semiotic system is that of *depiction*, expressed through marks on typically 2-dimensional surfaces but seen as representing 3-dimensional, or perhaps even 4dimensional if we include time, objects, and events. The number of different practices in which this has been realized, from prehistoric cave paintings to sand drawings common in many indigenous cultures, to classical western representational art, to the images that screens are feeding us constantly these days, are legion. But so do the practices in which we use language, and if somewhat more limited, gesture manifests in various forms of bodily expression: spontaneous gesticulation, pointing, emblems, pantomime, and perhaps we should also include "adaptors" where we touch or bodies and other objects at first sight accidentally, but actually quite meaningfully, as Alexandra Mouratidou is showing.

So what the concept of polysemiosis captures is that these semiotic systems are commonly interlinked, making monosemiosis the marked case. This is not to say that there is no value in it. For example, we are carrying out this interview by typing questions and answers in a Google document, utilizing only the semiotic system of language, and in particular, writing. If we were sitting face to face, our communication would have involved gestures, facial expressions, postures, and been livelier, and richer. But sometimes limiting communication to a single semiotic system has its advantages. Seeing how children in many of our countries are currently not learning to read and write any text that is longer than a few lines deeply worries me.

TO

I, too, find the term "multimodality" troubling for largely the same reasons. Even so, valuable semiotic work has been conducted recently under this heading, specifically in the details of co-speech gesture (which is a part rather than the whole of the semiotic system of gesticulation). For instance, and as you doubtless are aware, the co-speech gesture is a complementary but often unmonitored channel of communication, adding such features as point-of-view to the speech. My colleague at CWRU, Fey Parrill, has shown that speakers often adopt character point-of-view by, say, enacting walking motion with their fingers, while using a 'low-content' motion verb, such as "goes," or, in contrast, adopting a more objective point-of-view with a less defined lateral sweeping motion when paired with a 'high-content' motion verb, such as "runs," "skips," "trots," and so on. This is not law-like, just a general tendency. But I agree that calling the phenomenon "multimodal," does not do justice to the subtle complexity of gesture as, in the words of Dan Slobin, "thinking for speaking."

The demand for a stipulative precision of terminology is part and parcel of a demand for a more reflective and coordinated methodology. You advocate for a methodological approach of phenomenological triangulation when 'doing' cognitive semiotics. Maybe we can round off by discussing this.

JΖ

Yes, let's do so since this is also the last of the "five pillars" of cognitive semiotics from the recent paper that I mentioned at the start. Back in 2009 we simply referred to it as "a special kind" of methodological triangulation. But since the latter term is used for any kind of "mixed methods" research in the social sciences, above all combining qualitative and quantitative methods, we needed to spell out how our notion was different. This happened alongside our gradual appreciation of phenomenology as a foundational philosophy for interrelating subjectivity, intersubjectivity and objectivity as we discussed before. But phenomenology also has reflected much on how to go about doing this, on methodology. The core of the principle of *phenomenological triangulation* can be formulated simply enough: Since everything in the lifeworld is always accessed from one perspective or another, we need to be clear about what kinds of perspectives there are, and how they are interrelated. Luckily, phenomenological research, both philosophical and psychological, provides us with a clear typology of how to proceed. We necessarily start with the *first-person perspective* of the researchers themselves, where they have to reflect on their presuppositions, goals, and as much as possible bracket their unreflective, and potentially biased "natural attitude" toward the phenomenon in question. Let's say that this phenomenon is mental imagery. The researcher should not start by assuming theories of whether this is "mentally represented" as propositions or pictures, as in a classical debate in cognitive science some time ago, but rather focus on their experience itself, and attempt to determine its essential properties.

This leads naturally to the following *second-person perspective*, as one engages with the experiences of authors, for example from the writings of Sartre or Proust, who have written on this with deep insights. But also more scientifically, as in the work of sociologists like Garfunkel and Schutz, or psychologists like Giorgi, van Mannen and Petitmengin who have elaborated sensitive techniques for the analysis of the experiences of other people. While we cannot conduct interviews with non-human animals, second-person methods based on empathy can be in principle extended to them, as shown some time ago by Hans Jonas, and as realized increasingly today.

The third logical step, which is not strictly necessary for a cognitive semiotics study, but is recommended, when possible, is to move to the most distant third-perspective: of coding data, quantification and statistics. By calling it "third-person", we emphasize that this is not a matter of "objective" knowledge reaching a mind-independent level of reality, but rather methods that are most *objectified*, once again, in the sense of being most distant from the phenomenon in question. Such methods have their advantages, by allowing the formulation of testable hypotheses, and investigating causal relations between different factors, but also their inherent dangers, as generations of researchers have acknowledged with notions like "construct validity" and "translation validity". The former has to do with how well our theoretical notions correspond to the phenomena in question, and we have been engaged with this in our discussion by trying to define motions like "sign", "subjectivity", "semiotic systems", "polysemiosis" and "multimodality". The latter is how well these constructs are operationalized when we turn to third-person methods, since there is always the risk that we are not really measuring what we think we are measuring, if we proceed with too much haste to the third-person, quantification-based stage.

When it comes to language, a methodology analogous to phenomenological triangulation has been argued by Esa Itkonen to be the implicit, and preferably explicit practice of a truly general linguistics. Itkonen's point, in brief, is that whether linguists start from "invented" examples, or actually occurring utterances, they need to filter all language use through their own intuitions, and preferably also to reflect on these in the process. Studies of large data sets and corpora of linguistic data are in this respect secondary, while experiments presuppose the former, for example, to be able to control stimuli for usage frequency. Unfortunately, I have lost contact with Esa during the past few years, after communicating and collaborating for over thirty, and do not know if we still agree on these basic issues.

And as mentioned, I have definitely lost any direct contact with Göran, and really miss his complementary perspective on all matters cognitive semiotic. This was often formulated as a "counterpoint", which could be at times hard to digest, but in retrospect, I cannot help but acknowledge how the world of cognitive semiotics has become much less vibrant since his passing. And just over a week ago we lost one more of our founding members, Kristian Tylén... Perhaps it is a bit depressing to end our conversation on these notes, but I wish to do so anyway, especially in these last weeks of 2024. Our time here is limited, but with what we choose to do with it, we can contribute to a tradition that is larger than us, echoing Tolkien. For me, I hope that this will be the tradition of cognitive semiotics.

In SKASE Journal of Theoretical Linguistics [online]. 2024, vol. 21, no. 2 [cit. 2024-12-07]. Available on web page http://www.skase.sk/Volumes/JTL57/10.pdf. ISSN 1336-782X