

# I'm not Feeling Myself Today: The strange metaphor of SELF IS OTHER

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## Abstract

The cognitive mechanisms that drive metaphor are key to understanding human cognition: metaphor allows us to convert partial similarities into relational identities, and to create ad hoc groupings out of disparate items. It enables us to make one-to-many hierarchies, to simultaneously see objects and events as both similar and different, and to segment objects and events into components which can then each be subject to their own metaphors. If language grammar is essentially about hierarchy (forms containing forms), segmentation (combinatorial meanings) and differentiation (the action-object difference as a minimum), then the cognitive capacity for metaphor must precede, and be the basis for, language grammar.

There is, though, one metaphor important to language which is likely to have occurred after grammatical language appeared: the capacity to model the self as if it were another person. This capacity, essentially to be dispassionate about the self, is difficult to explain in Darwinian terms: where is the advantage to the self in seeing the value of others as being the same – or greater – than the value of the self? How could this capacity have become predominant in human society, to the point where we view the standard fitness measure – survival of the self first – as an undesirable sociopathy?

This paper considers the role the metaphor SELF IS OTHER plays in language, and the effect that it has on human communication and society. It looks at what may have originally generated this metaphor, and shows that, vital as the metaphor is to language and grammar, it was probably an emergent side-effect of sharing social communication. The paper also considers the Darwinian mechanisms that have allowed this metaphor to thrive, and to become entrenched in human culture.

## Being aware of a "self"

Having an awareness of self is, in evolutionary terms, no great trick. Single-celled animals, like amoebae, are able to sense food and move toward it; and they are able to sense changes in their environment and convert from a free-flowing cell to an encysted survival form (Cordingley & Trzyna, 2008). This, however, stretches the definition of being aware. Awareness of self is so minimal in this case that we need to hedge the terms: "awareness" does not imply cognition, and "self" does not imply any sensing of selfness. Yet the basic self-universe boundary, maintained by the amoeba as its membrane, creates a dichotomous approach to existence: everything outside the boundary is the means for existence, everything inside the boundary is existence itself. The amoeba's awareness of self is, therefore, a mechanism for converting means into ends. It is a capacity shared by every replicating system, even viruses; but it would appear to have little to do with the self-awareness of humans.

Using this simple self-other discrimination as a base, it is possible to describe a nuanced range of "awarenesses of self" which can cover the many variations of life on this planet. Describing the whole of this range is beyond the scope of this paper, so we will skip forward in evolutionary terms to the great ape, or Hominidae, clade. This group of species, which includes modern humans, is noted for a wide range of self- and other-awarenesses; and these different awarenesses are often used to identify human-specific, or ape-specific, cognitive traits.

An early test for a species-defining self-awareness was the mirror test. Gallup (1970) proposed that the ability of chimpanzees to use mirrors to investigate marks on their body, where stump-tailed macaques and rhesus monkeys did not, showed that the chimpanzees possessed "a rather advanced form of intellect". It was an interesting idea, and it has since been used to test other species. To date, bonobos, chimpanzees, orang-utans, gorillas, bottlenose dolphins, orcas, elephants and European magpies have all been shown to pass the test. Contrary to Gallup's original thesis, this disparate group of species indicates that mirror recognition may just be a side-effect of "cleverness", rather than a step on the path to becoming human. In addition, humans younger than 18 months tend to fail the mirror test (Asendorpf *et al*, 1996), indicating that there may be a maturational, or even learned, component to recognising the self in the mirror.

Another important definition of self- and other-awareness in the Hominidae clade involves Theory of Mind, which is, simply, the recognition that others have beliefs and intentions. It is easy to identify the evolutionary advantage that this type of Theory of Mind confers: if you are able to predict the likely actions of conspecifics (or prey) based on their beliefs about what they can do, then you can use this predictive knowledge to enhance your own existence, possibly at the expense of the other. This type of thinking, dubbed by Byrne (1995, ch13) as Machiavellian Intelligence, certainly seems to be something that chimpanzees can do.

Does Machiavellian Intelligence cover all the possibilities of what we expect Theory of Mind to be? Call & Tomasello (2008) show that we have to be careful in our definition of terms. Reviewing 30 years of test data about Theory of Mind in chimpanzees, they say that:

In a broad construal of the phrase 'theory of mind', then, the answer ... is a definite yes, chimpanzees do have a theory of mind. But chimpanzees probably do not understand others in terms of a fully human-like belief-desire psychology in which they appreciate that others have mental representations of the world that drive their actions even when those do not correspond to reality. And so in a more

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narrow definition of theory of mind as an understanding of false beliefs, the answer ... might be no, they do not. (ibid, p191)

While Machiavellian Intelligence may be an adequate description for much chimpanzee behaviour, it does not adequately describe the way that humans use other-awareness. We are certainly capable of using our knowledge of others' minds against them: Niccolo Machiavelli, the inspiration behind the phrase, was describing the system of thinking that human alpha males should adopt to dominate large-scale social groupings; he was describing humans and not chimpanzees. Machiavellian Intelligence, however, is only one small part of how humans use Theory of Mind: we mostly use it not to directly manipulate the behaviour of others, but to adjust our own behaviour to accommodate others. Somehow, we have been able to realise that the mind doing the modelling of other minds is itself just a mind, and it can be modelled in the same way as other minds. Not only are we self-aware, we are aware we are self-aware. As Damasio (2010, pp7-13) puts it, we have not just a "self-as-object" and a "self-as-knower", we have a "self-as-witness".

The concept that I have a mind, when yoked to the concept that others have minds, provides a powerful feedback loop for intentional modelling. It permits both the modelling of other as self (what would you do if you were me?), and the more powerful modelling of self as other (what would I do if I were you?). Human cognition becomes an iterative playground for the interaction of these two models: for example, what would you do if X happened, based on what I would do? What would I do if I were you after you saw me doing X? Modelling our own mind would seem to open up a range of new cognitive forms; and, indeed, it is a viable candidate for key species differentiator, at least when comparing humans to our nearest living relatives.

## Modelling Other and Self

If the capacity to model the minds of others is the basis for the capacity to model the mind of the self, then a few words are needed about where this capacity could have come from. Fortunately, for the purposes of this paper, it is sufficient to say that it collocates with Call & Tomasello's broader definition of Theory of Mind, and may be just another way of naming that process. To model the minds of others you need to have a cognitive mechanism which can identify that others do have minds, and you need to be able to predict the possible actions of those others based on their beliefs and intentions. As has been previously discussed, we know that chimpanzees have these capacities. There is also some evidence that the predictive capacity is a continuum and not a binary all-or-nothing, and that aspects of Theory of Mind are therefore present in other animals (Horowitz, 2011).

The capacity to model our own minds is not as easy to gloss over. First, there is the evolutionary problem: being able to see the self as another is being able to take a dispassionate approach to the self; and where is the fitness advantage in being dispassionate about yourself when all around you are being passionately Machiavellian in their interpersonal dealings? In this environment, nice guys usually finish last (Edwardes 2010, ch8). The advantages to the human species of a shared dispassionate approach are clearly huge: it has created a society of specialist roles, and this in turn has allowed the invention of tools for even greater integration and co-operation, such as law, money and religion. A dispassionate approach to the self has created a species with levels of co-operation even greater than those achieved by eusocial animals (such as ants, bees, wasps, termites, and naked mole rats). However, advantages after the event do not explain how we got

from a distrusting Machiavellian society to the peculiarly human trust involved in what Boehm describes as a reverse-dominance society (Boehm 1999, ch8)?

Nowak (2006) suggests five mechanisms through which co-operation can become endemic in a species.

1. Kin selection: it is worth co-operating with kin even if it is to your detriment. The fact that you share genes with your kin means that, at the genetic level, “you” are able to survive through your relatives.
2. Direct reciprocity: you co-operate with individuals until they no longer co-operate with you. If being sanctioned is a serious threat to an individual’s survival, then the consequences of cheating mean that non-co-operation is not a fit strategy.
3. Indirect reciprocity, which works through reputation. If an individual gains a reputation for co-operation then other individuals, even if they have not had dealings with the individual before, can co-operate reliably with them.
4. Network reciprocity: co-operators co-operate with other co-operators, non-co-operators are excluded from the co-operation network. Non-co-operators, who do less well in Darwinian fitness terms, are eventually out-reproduced by the co-operators.
5. Group selection, which is the most controversial of the mechanisms. Although non-co-operators do better as individuals in groups, groups with majorities of co-operators succeed, and those with majorities of non-co-operators fail.

None of these mechanisms can explain how a genetically novel capacity for co-operation can propagate from the single individual in which it appears, but together they provide a series of reasons why co-operation, once established, will survive and thrive. If we assume a steady, incremental stream of co-operative strategies, (alloparenting, food-sharing, co-operative food gathering, care of the sick, mutual protection, dominance suppression, and so on) each one facilitated by those already established and facilitating those yet to come, then we have a sufficient explanation for the growth of co-operation, and co-operative communication, in our species.

The capacity to model others is both a tool of Machiavellian Intelligence and a way to enhance co-operation, so it straddles the divide between Machiavellian chimpanzee behaviour and co-operative human behaviour. What starts out as internal modelling of other’s possible behaviours to manipulate those others, changes into internal modelling of the capacities of others to anticipate their needs, and then into external sharing of models to enhance group cohesion. The social environment changes from one where the sharing of these internal models is a sacrifice of the sharer’s fitness, to one where the sharing of models is itself a co-operative behaviour. Language, the method for communicating those models, is just a feature or behaviour emergent from the fitness of co-operation; and it therefore becomes an unremarkable part of the species landscape.

We can leave the evolutionary issue aside for now by arguing that, however it happened, it has clearly happened. This does not constitute a systematic answer, but it does allow us to concentrate on the effects that modelling the self, or applying the SELF IS OTHER metaphor, has on our use of language – and the effect that language has on the SELF IS OTHER metaphor.

## SELF IS OTHER

Language is replete with models of self and other; the pronouns, by themselves, offer a rich vein to mine for psycholinguistic representations of self. Taking just the first person singular forms in English<sup>1</sup>, we start with “I”, the self as actor and progenitor; then there is “me”, the self as recipient, an object to which things happen; and there is “myself”, in many ways the same entity as “me”, but more a model of aspects of the self than the holistic self (Edwardes, 2003). For instance, the phrase “I hate myself” seems to be more frequently qualified by “for x” than “I hate me”<sup>2</sup>. There is also the occasional use of “one” to represent the first person. In this case, the self is being used as a mere example of a group, as in “One doesn’t like to say”. And there is the royal “we”, used to identify the self as encompassing a range of roles.

From the segmented self of “myself”, through the more holistic selves of “I” and “me”, to the representative selves of “one” and “we”, the self is constantly being linguistically modelled by the self as not the self. Where a chimpanzee, without an obvious self-modelling capacity, has to present their anger with another chimpanzee as an indexical temper tantrum, humans represent their emotions linguistically, using symbolic models of themselves: “I’m very angry” or “You’re making me angry”. The very act of presenting the actual self’s anger through a linguistic model dissipates or mutates the anger that the actual self actually feels: the linguistic proxy for the anger becomes the expression of that anger, the modelled self becomes the vehicle through which the actual self relates to other selves.

We thus find ourselves sharing models of ourselves, using phrases such as “I know my own mind”, “I’m not feeling myself today”, and “I think I need a holiday”. The self in each of these utterances has been represented in at least two ways, creating complex interrelations of modelled selves, none of which are directly collocated with the actual self making the models. Even in utterances not directly referencing the self, such as “do you want a coffee?”, we can identify a modelled speaker-self that can somehow be instrumental in the provision of coffee. Strangely, not only do we know what we mean when we make these utterances, we expect our interlocutors to understand the meaning, too; and, even stranger, they usually do.

We can therefore see that the modelling of the self as an entity non-contiguous with the actual self is common in language. The metaphor that SELF IS OTHER is not just a convenience for the speaker and listener, it is a key cognitive facilitator for language. As with base metaphors like MORE IS UP (Lakoff & Johnson, 1980), SELF IS OTHER encapsulates a fundamental idea which informs and extends language, and affects our relationship with actuality and our relationships with each other. SELF IS OTHER is a key metaphor in human cognition, but it also seems to represent a lexical relationship emergent from language. This poses a problem of timing: did the metaphor precede syntactic language or emerge because of it? And, if it was an emergent effect, can something be both fundamental and emergent?

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<sup>1</sup> English is used as the example language in this paper. This should not be taken to imply that it is the exemplar language.

<sup>2</sup> An internet search (Bing, 14 June 2012) gave the following: “I hate myself”, 2.96 million occurrences, 46.6% “I hate myself for”; “I hate me”, 95,200 occurrences, 14.7% “I hate me for”.

## Sharing Models

We cannot know how language developed out of non-linguistic communication without a time machine; anything we say about the process is necessarily speculation. We can, however, try to make that speculation as informed as possible. For instance, we could speculate that language is a species-specific system, produced by a single macromutation somewhere in the history of our species (Chomsky, 2002, pp146-151). While this is possible, it would have been an unprecedented evolutionary event; and that makes it improbable. We should, if we can, find a more probable answer.

A more probable scenario would start with something we share with chimpanzees and bonobos, our close species relatives. We know that both of these species have Theory of Mind in the broader definition (e.g. Melis *et al* 2011; Savage-Rumbaugh *et al*, 2005), and we know that this level of Theory of Mind rests on the ability to model the beliefs of others. This supports the speculation that our common ancestor was making mental models of conspecifics, and we can then suggest an intermediate species between the common ancestor and modern humans which was able to model relationships between two third parties using an A-relationship-B cognitive grammar.

While this interrelationship modelling is itself a novel evolutionary capacity, it does not require novel cognitive mechanisms. It is easier to store, change and retrieve these relationships if they are stored as a network of nodes (entities) and links (relationships), rather than in lists. Adding or deleting nodes, and establishing, redefining and removing links, is easy to do without disturbing the rest of the network. We know that vertebrate brains do seem to work as neural networks (O'Connell & Hofmann, 2012), so this kind of social grammar is not a radical proposal.

The A-relationship-B grammar represents a banal but important cognitive mechanism: the same basic grammatical form can be used to express a range of relationships between a range of individuals. Alf likes Bert has the same form as Bert hates Carl. In terms of interpersonal relationships, this interchangeability of entities can be expressed by the metaphor, OTHER IS AN OTHER: on one level, each entity is separate; on another level, each entity is interchangeable. This dual semanticity creates the environment for a social calculus to develop: if Alf likes Bert and Bert hates Carl, then Alf is likely to intervene on Bert's side in any fight between Bert and Carl; which means that a friendship with Bert will be more profitable than a friendship with Carl.

The next step, the sharing of these social grammar models, poses a problem. It is easy to see that, if co-operation has become significant enough for a species, the ability to share social models will allow greater co-ordination of group reaction to cheats: Alf's reputation becomes, for Bert, not just a matter of what Alf has done to Bert, but what Alf has done to Carl. Reputations become group knowledge, and subject to group response.

The mechanism by which this sharing happens, however, is less easily explained. Somehow a signalling system which permits the sharing of segmented and differentiated signals has to come into existence. Some limited examples of this kind of signalling system have been discovered in nature (e.g. Arnold & Zuberbühler, 2006), but they are not as complex as the proto-language system proposed here. However, Scott-Phillips *et al* (2009) have shown that, given no starting conditions other than their own ingenuity, humans are capable of generating effective communication systems in very short periods of time. In the circumstance described here, both

parties have a cognitive grammar of A-relationship-B, so establishing a communication system than maps this cognitive grammar onto a signal should not be impossibly difficult.

## Originating SELF IS OTHER

Once individuals are exchanging A-relationship-B models of third-party interactions, it becomes possible for the sender, who is neither A or B, to share a model involving A or B with A or B. This poses a problem for the receiver: they have to be able to model themselves as a node in their own cognitive grammar, so that they can integrate the opinions of others about them into their network. Or, to put it another way, they have to stretch the OTHER IS AN OTHER metaphor to include SELF IS OTHER. As has been stated, the disadvantages of modelling the self as other are considerable, because it entails taking a dispassionate approach to the self; so the advantages of self-modelling must be outweighed by the disadvantages. It could be that modelling how others relate to the self allows dissonances with how the self relates to others to be identified; it could be that placing the self into the network allows the self to better model the group interrelationships; it could be that the network itself becomes more predictive with a modelled self; it could be all of these, and more.

What we can say is that a dispassionate view of the self enhances group selection at the expense of individual fitness. In evolutionary terms, it shouldn't work – but it does. Alone among the non-eusocial species, humans are willing to sacrifice themselves for their group; and not just for the physical entity of a group but for the concept of a group. It is a powerful mechanism for ensuring the survival of the self's cultural group; but it is also a terrible tool in the hands of those who do not play by the rules underlying this social system. As van Vugt & Ahuja (2010) show, humans are remarkably good at following.

So the metaphor SELF IS OTHER is both fundamental to language, and emergent from languagelike communication. It sits at the cusp between simple social model-sharing and the sharing of complex models of reality, a product of the first and a motivator for the second. Because we can model ourselves we can place those models into a range of what-if modelled scenarios, and we can then extend the predictive power of what-if in a range of creative ways. It is not within the scope of this paper to explore this further, but the main effect of the SELF IS OTHER metaphor was summed up by Robert Burns in the following couplet:

O wad some Power the Giftie gie us,

To see ourself as others see us!

(*To A Louse, On Seeing One on a Lady's Bonnet at Church, 1786*)

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