How to diagram a process sign

A difficult problem arises when we define the process sign as the selection of a set {a, b, c …} against a background transformed by the selection. How do we capture the ongoing transformations of a dynamic process in a form of representation? Won't this form lose something of the process in trying to express it?

Take an ordinary sign such as a hairstyle {buzz cut, orange dye, tattoo}. If we observe its effects on its background (*your mother is very upset, but it cheered your punk grandfather up*) their variety and ongoing nature hinder a simple definition of the sign as process. Any representation will need to be able to capture changes in intensity and unexpected transformations (*she's getting used to it, but who'd have thought it would lead to so many arrests, and a role in the band*).

The process approach is a kind of pragmatism. This alters the basic problem because, for a pragmatic approach, difficulties are not a question of absolutes – absolutely true, absolutely right. Instead, it is a relative matter – what's better for this, here and through time. The problem can therefore be recast. How best to capture the ongoing transformation brought about by the selection of the characteristic set for a sign?

This finessing of the problem calls for another distinction. The pragmatic response to a problem depends on when, where and how it occurs. In the case of an absolute treatment, we seek a universal solution. This universal will only have contingent flexibility for particular instances. For a pragmatic approach, each singular case determines its solution. We can only move experimentally to generality by removing significant features from many cases until we have a general approximation.

For example, a universal solution to a health problem might have a number of non-negotiable aspects: this drug and this dosage for this length of time. It could then have some contingent features, how the drug is administered say, but these are contingent in the sense of not changing the universals. These variations have been called incidental or accidental, in contrast to essential universals.

In the pragmatic situation, dealing with singular cases, universals can be challenged and discarded, while incidentals can take on crucial functions. For an aging patient, with a loathing of hospitals, the drug might be replaced by a palliative treatment, at home with her beloved pets. As it is understood here, pragmatic generality is only a matter of guidance for singular events. It can be wildly wrong when a given situation has significant features distant from the abstract general case.

On the one hand, let the selection of a sign involve dynamic elements, like the arrival of a cold front on an expeditionary fleet: {high winds, extreme cold, steep waves}. The elements in this sign are already lively processes operating between contrasts, such as dead calm and uproar. To express the catastrophic effects of this dynamism, the things affected need to be captured initially as static: individual sailors, parts of the ship such as sails, keel and hull, destination and supplies, mission, command structure, and material limits of ship and crew.

The power of the storm is reflected in the fragility of the substances and systems caught in its path. The drama of 'Cruel Sea' movies often depends on this contrast of dynamic oceans and doomed vessels, such as the crushed cabin and desperate willpower of *A Perfect Storm* or the cable-tight, yet brittle human structures of *Das Boot*, as the seas and the enemy take them to the limit.

On the other hand, let the selected sign involve static elements, like the imposition of a new border: {frontier, free zone, occupied zone}. These fixed lines and fields have effects on a background, this time best captured first as flows and intensities: a reduction in salt crossing the border, an increase in people smuggling through mountain passes, a decrease in economic activity, a rise in fear of strangers.

The cinema and literature of borders and walls depend on these increasing tensions and flows beating against enclosures and barriers, whether it is the flow of time either side of a prison wall, the wasting of bodies in camps, or, in the case of death when crossing the wall, of the depletion of life forces of the victim, left to expire in no man's land. Documentaries are very good at expressing this contrast of partitions and flows, because of documentary dependence on lost times and on witnessing in the present. The chasm between past and present replicates the horror of the broken life-flow.

Does case-based variability mean we must abandon generality and all hope for a method for the representation of the dynamic nature of process in signs? When we look more closely at the examples, we can still abstract pragmatically from the initial demands for either static elements or dynamic flows. It is a question of relatively static elements and of relatively dynamic processes transforming them. Though initially taken as static, elements can be subdivided into further flows that split and affect further elements.

The art of the close-up in cinema is a way of reintroducing dynamic change into apparently immobile elements, in the deepening folds around a sailor's dimming eyes, or the noose-like noise of a plank, twisted to shearing-point. The ability of documentaries and testimony literature to change scale and move from the barren inevitability of the prison to the mundane lives of victims and survivors communicates the processes of crushing and resistance around enclosures, laws and rigid policing.

Artistic scrutiny has the ability to bore down or pan out, to move back and forth across time, processes, space and materials. It demonstrates how each element can be divided into a commotion of further elements and transformations. We are used to this stretching and concentration in film and the novel, but they are not the sole preserve of the arts.

Thanks to their combination of specialisation and wider relevance, the sciences also afford similar vistas; for example, when a doctor's chart invites us to travel down to our cells, or when an engineer's analysis focuses us on a single failed component and its behaviour over varying temperatures and stresses, or when an equation allows us to understand significant points in the behaviour of a system.

Though different cases call for opposed expressions of elements, intensities and flows, the shifts of perspective afforded by the arts and sciences teach us about the power to divide and connect across

a field of elements and their backgrounds. This power implies that any mapping has infinitely divisible elements, crossed and transformed by multiple processes working in different and contrasting ways.

To be true to this divisibility and extension, the general form of the mapping of a sign is a special kind of diagram. It does not have points or elements, understood as impermeable identities, but rather neighbourhoods which can be focused upon to show the processes within them. This capacity to focus more deeply and to connect transformations over a large field captures the potential for relative partitions and changes across the elements and background for each sign.

This pure diagram does not have parts. It has shaded areas which, when observed closely, become further shades, blending and in movement across the whole field. There are no fixed elements but rather changing intensities of relations between and within neighbourhoods. Each of these is always undergoing new transformations.

The pure diagram for a process sign implies a method for drawing diagrams for signs. The challenge is to go from the elements selected into the sign {a, b, c, …} to a diagram rich in connections and transformations. The first step is to list not only the selected elements, but others from the background changed by the selection. These allow the substratum for the sign to be characterised. The second step is to list the transformative relations between and within elements, as well as the intensities of those relations. While the third step is to organise transformations into how they combine elements.

These elements are the neighbourhoods on the diagram. The relations are vectors and directions on it. Relative closeness determines initial positions. The diagram for a sign resembles a constellation, with vectors indicating movement and change, or a piece of choreography, indicating the movements and intertwining of dancers, as well as the dramatic moments of the dance.

Imagine two groups of teenagers from a village meeting on a sea wall after school. At one point, a sign hits. Someone blushes when someone else laughs a little too loudly at an innocuous joke: {A-blush, B-awkward-laugh}. On the diagram, A and B can be put towards the centre, perhaps with two vectors indicating their attraction. Other players now recede or transform. Maybe one of the strong vectors of rejection is jealousy, spinning elements towards the outer zones. Perhaps another more ubiquitous and subtle vector is growing up.

Instead of a meaning sign, A-blush + B-laugh *means* A likes B, the diagram gives us a partial expression of an ongoing process around the sign. This is no longer a one-to-one relation across different fields: appearance/meaning or signifier/signified. It is a transformation of a social and material context, everything touched by the new sign: the hopes of a lover, the fears of a parent, the ire of a clan, the beginning of descendants, and the reversal of the flight to big cities.

The pure diagram is an answer to the challenge of mapping the effects of a sign. It suggests which elements are touched and changed by the sign and it shows how they are transformed. Once the sign is taken as a process, critical and creative diagrams become the best way of expressing it. This

does not mean that every diagram should be pure. On the contrary, the pure diagram should be seen as a template or a storyboard for more creative forms.

A film can be the diagram for a sign; for example, in the way *Mustang* narrates the effects of the shutting down of its initial images of social freedom. A series of charts can be a diagram; for instance, in the way a number of tables explain the processes behind a financial number. Nine percent unemployment is a sign, but it is not given as a full process sign until the selection of a set is taken along with a series of hypothetical mappings in graphs and models.

Or take the phrase 'I know my place' in the 'Class sketch' from the Frost Report, first broadcast in 1966. To fully understand the significance of the phrase as sign for a changing class system, we have to go beyond its meaning or its referent. We must give a diagram of the effects it brings about and the forces that explain its power, why it made people laugh, and why it told a story of social change. Every sign is a process sign. There is an art to describing their diagrams.

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