
*Warp, Woof and Regulation:
A Tool for Social Science*

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Styles change in France. Skirt hems rise above and then drop down below the knees, pants widen into bell-bottoms only later to tighten around the ankles. Social science also has its fashions. When mini-skirts and bell-bottoms were in style in the late 1960s, structuralism held sway. Actions and anticipations of agents were but the reflection of the reproductive requirements of social structures. In the 1980s dress has become stricter and the methodology of social sciences more individualist (which, by the way, demonstrates the relative autonomy of the fashion system). Methodological individualism imposes the idea that structures are but the compositional effect of projects, and practices in turn are a description of the choices of 'rational' agents.

The collapse of structuralist hegemony in the mid-1970s did not, however, lead to the consolidation of a 'dominant methodologically individualist current'. Was that because of an old Keynesian and Durkheimian tradition? Intellectual France did not throw itself, body and soul, into the turnkey model imported from Anglo-Saxon countries by the 'new economists', 'new sociologists', and so on. It withered instead. It seems to me that heterodox currents have remained lively, though dominated by individualist background noise, and that, very early on they distanced themselves from structuralism's excesses. These currents tried to reintroduce into the world of the possibility of 'agentless structures', and saw instability and change as consequences of the possible deviance of individuals or social subgroups, without falling prey, nonetheless, to a world of 'structureless agents'.

Owing to the inherent instability of much of what was written in this vain, the resulting 'post'-structuralist era was quite often seen to represent a break with a preceding period which was structured around a stable 'agency' 'structure' axis. This 'superseded' era was, of course, no other than 'modernity' and its successor went by the name of 'postmodernity'. The difference was to be a difference of 'space': largely absent in the former, it was to become everything in the latter. I wonder, though, if the resulting debate about the 'postmodern condition' has really moved us into more productive territory. Partly as a result of this scepticism, the following chapter will largely refuse

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to dance to the tune of easy classifications. Rather, it will take as its point of departure the widespread recognition, which gained ground after the 1970s, of a problem inherent to traditional ways of theorizing 'structure' and 'agency'.

In economics, new lines of thought, such as the notions of 'accumulation regimes' and 'regulation modes', were an offshoot of this concern. Their power in explaining Fordism and its crisis has been widely acknowledged. Here I would like, as an 'indigenous informer', to take up the theoretical framework underlying the attempt to supersede the sterile opposition 'structuralism/individualism'. My paper will be deliberately introspective. It is a personal view that does not claim to speak for the many researchers who, like myself, have contributed to this current of thought.

It will also be subjective in that it is based, not only on a researcher's experience, but also on pedagogical activity. In the course of preparatory work for a short film project on regulation (Lipietz 1987a), a director asked me to reproduce for him the images I ordinarily sketch on a sheet of paper when I reflect, or draw on a blackboard when I teach. According to his experience, by examining such images one can learn more about the basis for a way of thinking than in a presentation, however didactic the latter may be. I realized on that occasion that I unconsciously lent paradigmatic importance to a metaphor incidentally used in literary terms in the CEPREMAP's (Centre d'études prospectives d'économie mathématique appliquées à la planification) report (1977): that of weaving, warp, woof, and heddle (sometimes replaced by the metaphor of streams of water flowing between a bridge's pillars). I became aware that this metaphor already underlay my earlier thoughts about the competitive and monopolistic production of space (Lipietz 1975). It played the same metaphorical role in my report on 'accumulation regimes/values in process' as the 'invisible hand' in Adam Smith. Geographers such as Hagerstrand (1970) had used the same metaphor, as had certain sociologists in their efforts to overcome the 'structure/agent' dilemma (for example Pierre Bourdieu and Anthony Giddens). It is actually related to a field of study I came across long ago (and discussed in Lipietz and Rouilleault 1972 and Lipietz 1973) on the nature of human reality as 'objective subject' (Kosik 1968). It is a dialectical approach which obviously goes back as far as Spinoza (naturing nature and natured nature) and even Heraclitus, Karl Marx finding his place in the series as well, of course.

My purpose here is to offer a free-floating and subjective sketch of the usefulness of this metaphor, without a great deal of critical commentary. Many researchers will, I hope, see their own inner schemas in what I say and will easily identify these same schemas in many other works.

I will begin with a brief presentation of the intellectual culture in which regulationist approaches have developed. I will then take up the 'warp/woof' image at a 'deeper' level, after which I will provide two examples by way of application, one economic, the other geographical.

1 Regulation in Context: The Concept and Its Time

In 1975–76, Michel Aglietta organized a discussion of his thesis (1974) in the form of a long seminar which was later to inspire the works of a CEPREMAP team (1977). At that time, much French research in social science was characterized by the domination, but also the exhaustion, of the structural Marxism identified with the school of Louis Althusser. One can summarize its fundamental theses as follows.¹

- (a) Social reality is a fabric, that is, an articulation of relatively autonomous and specific relations that overdetermine each other (even though certain of them are more fundamental than others), that is, 'a whole which is always already given and overdetermined, and which has a dominant feature'.
- (b) Each of these social relations is reproduced *qua* result by the action of its 'bearers' ('the structure exists as a result'), but puts the bearers in the position of reproducing it independently of their subjectivity. Jacques Rancière, who has since changed his mind, went so far as to say, in *Reading Capital*, that 'Being mystified is the essential attribute of the subject function'.

Althusser's school (more or less contingently or derivatively) joined to these fundamental methodological theses two further theses that are important for economists:

- (c) The 'productive forces' themselves are the materialization of the social relations of production (a theme developed by Balibar and Bettelheim).
- (d) The contradictory character of exchange relations is superficial and secondary (a point forcefully made by Althusser and later developed by Balibar).

I will not question the merits of thesis (a) here. For quite some time it sheltered French Marxist thought from the mirages of 'expressive totality' according to which politics, ideology and fashion only 'reflect' the fundamental economic structures. The generalized functionalism underlying, for example, German '*Kapitallogik*' approaches found itself easily used as a weapon for propaganda.

It will not question the merits of thesis (c) either, this latter joining up with those of the Italian 'opéraïstes', 'radical' Anglo-Saxons and 'radical' Chinese. Breaking with Stalinist technological determinism – which owed more to nineteenth-century bourgeois ideology than to Marx himself (despite the ambiguities in his 1859 Preface to the *Contribution to the Critique of Political Economy*) – thesis (c) underlies all our work on the Taylorian organization of work, its crisis and its supercession.

Thesis (b), on the other hand, and thesis (d) – which is in reality (b)'s corollary and illustration – constitute the 'seamier side' of Althusserism, that is its submission to a structuralist hegemony which, from Lévi-Strauss to Lacan, sought to deconstruct the subject and his autonomy everywhere, this no doubt as a reaction to the preceding theoretical fashion: existentialism and the philosophy of praxis. Individualism, for example the subjectivism of 'industrial capitalism', actually finds its first illustration (and perhaps its economic determinant) in the existence of market relations, in the autonomy of 'private

activities carried out independently' which afterwards must seek social validation (cf. *Capital*, chapter 1!). Yet in throwing Noah's coat over chapter 1, Althusser in one fell swoop censured the subject, contradiction, and market relations. Developing this idea, Balibar was led to deny the existence of structural contradiction at the root of crises: a structure's purpose is simply to ensure its reproduction.

There is but one small step from such a notion to functionalism, that is, thinking that 'everything is made for the purpose of reproducing structures'. Terray (1977) explains this very clearly:

When thinking about reproduction, the whole outdated arsenal of functionalist interpretations frequently resurfaces. Reproduction is conceived of as a final cause from which the set of structures and institutions analyzed proceed [...]. To avoid this error, one must first recall that reproduction cannot be an end: only a subject can propose an end in itself. But society is not a subject. One must recall above all that what is reproduced is precisely, and first and foremost, a contradiction [...]. Hence, to adopt the point of view of reproduction is to definitively understand how the very cycle of production and distribution constantly encounters two terms of this contradiction constituted by the relation of fundamental production – dominators and dominated, exploiters and exploited – how the former try to ward off crises through which this contradiction could be overcome or resolved, and how the latter more or less consciously attempt, on the contrary, to abolish it or escape from it. Reproduction as a whole is both what is at stake in their encounter and its result.

Retrospectively one can evaluate the importance of the long period of crisis-free Fordist growth in sustaining this functionalist illusion. In reality, Fordism turned out to be devoid of crises 'in circulation', but not in production. 'Circulationism' thus deservedly became an insult in Marxist circles (particularly in Rosa Luxemburg's critique, but also in the analysis of 'center-periphery' relations). The need to focus on the level of production, that is on capital-labour relations, was thus reaffirmed.

Michel Aglietta's thesis followed this latter line: one had to wade through hundreds of pages dedicated to the analysis of capital/labour relations – fortunately divided into two relations, that of the organization of work and that of the distribution of surplus value – before the existence of autonomous capital was mentioned. But this 'division' served the purpose of bringing out the *contradiction* in the reproduction of this complex relation, and thus the possibility of crisis and the problem of *regulation*. It was high time: the crisis of Fordism had just exploded.

The introduction of the term 'regulation' was admittedly not enough to dissipate the functionalist connotations of the term 'reproduction'. In Michael Aglietta's first formulations, in certain publications that came out of CEPRE-MAP research (1977), 'regulation' simply designated 'what is necessary for reproduction to work, *in spite of underlying contradictions*'. To explain the crisis, one obviously sought to explain Fordism before its crisis. The 'mode of regulation' was thus offered to the public in the form of its result, rather than

on the basis of a preliminary discussion about the existence of structurally contradictory relations and the resulting tendency towards crisis (which the mode of regulation is supposed to inhibit for a certain period of time). One could even go so far as to speak of *'ex post'* functionalism.³

The term 'regulation' however, had already been introduced into the discourse. It was already seriously weighed down by Canguilhem's famous definition in the *Encyclopedia Universalis*; 'Regulation is the adjustment, in conformity with some rule or set of norms, of a plurality of movements or acts, as well as their effects or products, whereas their diversity or succession at first makes them foreign to each other'.

This definition was irremediably marred by two prejudices, seen in the expressions, 'at first, makes foreign' and 'in conformity with some rule'. First of all, the 'movements' or 'acts' were not perceived as being induced (in their divergence) by the contradiction within a unique relation. Secondly, this definition posited the existence of a teleological norm or finalism which automatically led to functionalism. The 'goal' of adjustment seemed to be the cause of the existence of the regulating apparatus, the assembly of which could be confided to some human or divine architect. The theory of systems – cybernetics – had then only to describe the retroactive regulatory functions.

Even in its cybernetic version, the 'regulationist vogue', which emerged in the 1970s through the work of Atlan, Thom, Prigogine and Attali,⁴ represented great progress when compared with structuralism. While the whole set of representations and identities that had become dominant during the Fordist era (that which today I would call the 'hegemonic societal paradigm', cf. Lipietz 1986) crumbled, new social movements came to the fore which seemed to be able to regenerate the social system. Alain Touraine (1978) in a positive vein, and Régis Debray (1978) in a negative one, theorized the capacity of collective actors to modify ossified social systems, leading thereby no new equilibria. For Jean-Pierre Dupuy (1977), 'the autonomy of actors' became the condition for society's 'structural stability'. It was a promising idea, but revealed the limits of such autonomy when confronted with the rigidity of heavy structures inherited from the past and the need to make specifically *institutional* compromises to stabilize the innovations. Nonetheless, the difficulties experienced by successive governments, leftist and rightist, between 1974 and 1986, in proposing compromises allowing for the regulation of a new model of development, paved the way for the triumph of liberal ideologies in society, and at the very least facilitated the progress of methodological individualism and 'microsociology' in the field of social science.⁵

As I mentioned above, this 'progress' by no means amounted to a total triumph. A countertendency could be found in the work of the *Ecole des Annales*, and especially that of Georges Duby and Fernand Braudel, which influenced a broad public. The work gave a major role to the durability of heavy structures, the weight of norms bearing down on everyday life, and the slight degree of freedom offered to individuals and groups. Similarly, the success of Bourdieu's school has endured: the '*Révoltes logiques*' Collective (1984) affirmed its influence in referring to the 'empire of the sociologist'.

The case of the Bourdieu school is particularly interesting. A widely held view is that its central thesis is akin to Althusser's: the strategies of agents are functions of a '*habitus*', and can therefore contribute only to the reproduction of the structure of the current state of things. To caricature this thesis, we could say: like father, like son; they have the same hopes, ambitions and results. But this begs the question, for the whole problem is precisely that of defining the relative 'power' of strategies and structures! Bourdieu has been systematically criticized on two fronts; as a structuralist and also as a methodological individualist (and even as a 'spontaneist' by Lévi-Strauss!).⁶ This ambiguity in the critique is quite telling. In reality, the exploration of the concepts '*habitus*' and '*strategy*' led the Bourdieu school to investigate the same problems as the regulation school, as well as to overlap with the work of certain *Annales* historians like Duby.⁷ For example, Boltanski's fine book (1982) shows how, on the basis of slowly changing social structures, the group of '*cadres*' (professional workers) gained power from 1930 to 1950, and came to play a central role in '*wage based society*' (Aglietta and Brender 1984), in other words the French form of the Fordist model which it helped mould.⁸

Such is the intellectual context, woven of reciprocal exchanges, that has inspired my theoretical and pedagogical reflections on the concept of regulation.

2 Dialectic and Fabric

'Men don't realize how that which varies remains in accord with itself. There is a harmony of opposed tensions, like that of the bow and the lyre'. This famous saying by Heraclitus is the starting point for what our culture calls dialectic, and the image of the bow seems appropriate for an exposé on the contradictory character of social relations. The problem is obviously one of providing an example, without having first dealt with the example in its own right: market relations and wage relations. A convenient short cut can be found in the example of love relationships.

'A' love relationship (a couple's history together) is a social relation in two senses. First of all, it is a relationship between two people, and secondly it is established in accordance with a model, a '*pattern*', that is a recognized social form existing prior to any particular couple. The human need to couple is certainly ancient, but the '*love relationship*' couple form is rather recent (in France, it became entrenched in the middle classes during the seventeenth century). Individuals must already see themselves as subjects (which is a condition that is overdetermined by the totality of social relations) and feel a lack which can be filled by love relationships; they learn this from their culture, and afterwards from personal experience. *Willingness* to engage in a love relationship thus seems to be a property of an individual but it is, in fact, realized only as an interpersonal relationship – which is social in the first sense – and it follows a '*pattern*', that is it is social in the second sense.

The exploration of '*willingness*', differing little from Bourdieu's *habitus*, is

the domain of psychoanalysis, though the latter finds it difficult to separate the social from the biological. Keeping to the essentials, let us examine Lorenzo da Ponte's view in *Le Nozze di Figaro*, as pronounced by Chérubin:

You who know what love is
 Women, tell me if I have it in my heart [...]
 I seek something outside myself,
 I know not who has it, nor what it is [...]
 And yet I am pleased to languish so.

Such a search for something outside oneself may be satisfied in a variety of ways: pairing, mysticism, ambition, work, and so on. The social existence of couples in love is in no sense an effect of the composition of individual strategies for finding happiness. It is an historical invention, as I mentioned above. But for *each* individual, the formation and maintenance of a couple is clearly the result of a (more or less co-operative) strategy.

Thus, the encounter of two people willing to love provides only the 'material' of a love, its biological *bearers* ('*träger*', as Althusser says). But it is the love relationship that constitutes them as lovers. One hardly worries about what Molière's lovers were like before they met, and there one is perhaps mistaken – I'll come back to this point further on.

Love relationships are no more isolated in this world than are lovers. Before analysing the social relation of love, one must recall [Althusserian thesis (a)] that it is overdetermined by other social relations, beginning with – in the case of heterosexual love relations – relations the bearers of which coincide with those of love relationships, but which are different: so-called phallocratic or 'gender' relations (Guillaumin 1978), and more generally, the set of patriarchal relations (especially those between lovers and their parents). There are, of course, also the social relations of market production and distribution, co-determining the economic independence of individuals, that must be taken into account, not to mention legal relations which can seriously overdetermine choices (à la Hirshman's: 'Voice, Exit, or Loyalty').

But what is a love relationship? It is a relationship in which each person seeks happiness and self-realization through the other person, there being variable components of giving, identification, and fusion, though they presuppose and imply autonomy of the two partners. In short, a love relationship *unites* and *opposes* lovers, the 'fusion', of the two being the means and the obstacle to each individual's fulfilment'. Like every social relation, a love relationship is a *contradiction*, like market relations. Churches and good-willed sexologists can preach all they like that 'it is in the giving of oneself that one finds oneself', just as liberal economists can repeat that the pursuit of private interest results in collective well-being. Sometimes it's true, and sometimes not. When true, we are 'working within a regime', when false in a moment of 'crisis'.

Let us turn to the image of the bow. One can define a contradiction as a relation which defines two poles in uniting and opposing them.

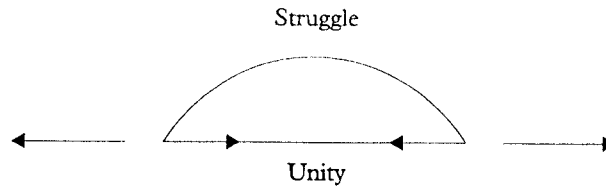


Figure 10.1 The bow of contradiction

The contractions which are of interest here are social relations, one of which is the love relationship. Every social relation, existing (as overdetermined) in human society (whether we're dealing with a couple or a nation) isolates in this society a system of *places*, hierarchical (capitalist/wage labourers) or non-hierarchical (lovers, co-exchangers). These places are complementary to the relationship that defines them: seen from this vantage point, the relation is a structure. But the places hold in store for the individuals who occupy them a *role* which is more or less in conformity with what they perceive as their interest (in comparison, notably, with other places in the same relation, or other places in other relations, or even physical needs). Whether they 'refuse to play the game' or whether they 'take their places' in trying to 'improve their game', individuals in relation are necessarily opposed. This is true whether the game is a negative or positive sum one! Even the gift is an opposition (for example, the potlatch within exchange relations, and invasive devotion within love relations).

I have termed 'willingness' or 'disposition' (*disponibilité*) the ability to fill a role and to try to improve one's game from that position; I have also identified this disposition with Bourdieu's *habitus*. There are thus two possibilities: (1) the pursuit of the game, that is, the lived experience of the relationship through time, leads to the dissolution of the relationship – there it is difficult to speak of a social relation (at the very most one could speak of fleeting interaction); or (2) it leads to the reproduction of the relationship, and it is this reproduction of unity that allows us to identify a relation. One can thus represent the reproduction of a relation in time, either from the vantage point of contraction or from that of places:

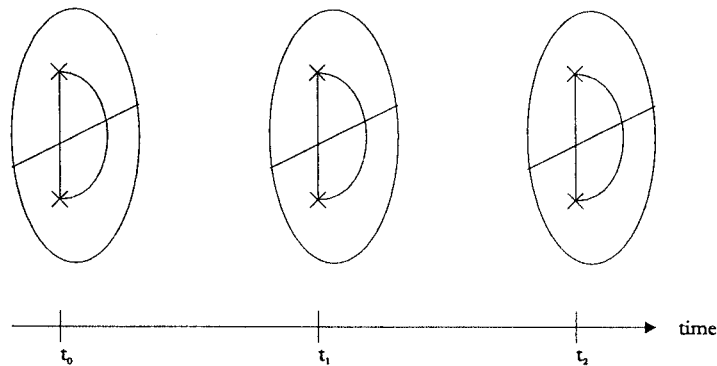


Figure 10.2 Structure over time

The two 'squares' defined by love relationships have been filled, in the course of time, by Célimène and Alceste, Paul and Virginie, and Colin and Chloé. But from the point of view of the individuals occupying these places, things present themselves differently in every case. They are actors in their love relationships, they fill roles by which the relationships and the places are reproduced. What allows them to fill their roles in such a way as to (and not necessarily 'in order to') reproduce their relation is their disposition and habitus, but also the perceptions they have of the other's intentions, and possibly of external social pressure experienced as an incorporated norm (in Marivaux, for example) or as an explicit institution (for example marriage)?. One must thus take into account:

- 1 the disposition, habitus, interest and individual desires; and
- 2 a space of representation of the relation in which the agents are taken up and perhaps hemmed in by an institutional apparatus.

At this point, it makes no difference whether the relation be perceived as egalitarian or hierarchical, as consensual or oppressive, or whether, in the space of representation, a real or assumed power relation be taken into account. In any case, the reproduction of the relation supposes a certain 'agreement', willingly or unwillingly granted, as to the legitimacy of its perpetuation. As Gramsci shows, even exploitative relations imply the consent of those who are dominated: a hegemony 'armor-plated with coercion'. A very serious error of methodological individualism consists in reducing every relation to an agreement between individuals accepting a common norm. It is obvious that such agreements exist, for instance between citizens in a city, and between market exchangers,⁹ but reducing any relation to an *inter pares* agreement is illusory.

According to Thucydides, during the Peloponnesian War, the Athenians, when at odds with the people of Melos because they refused to join in the alliance against Sparta – the Melians invoking divine law to justify their right to remain neutral – declared: 'Laws are only valid amongst equals. In the case of unequal powers, power decides'. Such a principle of legitimation clearly can function only on a case-by-case basis. In a stabilized empire, the recognition of hegemony must be materialized in another way, even though power continues to underlie legitimacy. In the case of love relationships, power is absent in theory, but the subjective cost of loss of love (for both Alceste and Célimène) weighs upon each individual like a power relation.

Fig. 10.2 now takes on another meaning. Endowed with their habitus and with the idea they have of their inscription in social life (in a couple or an empire), each agent develops a strategy such that the set of trajectories works to reconstitute the relation, in the course of time. In fig. 10.3, the agent's habitus is represented by a small circle, and his space of representation by a small rectangle or 'map':

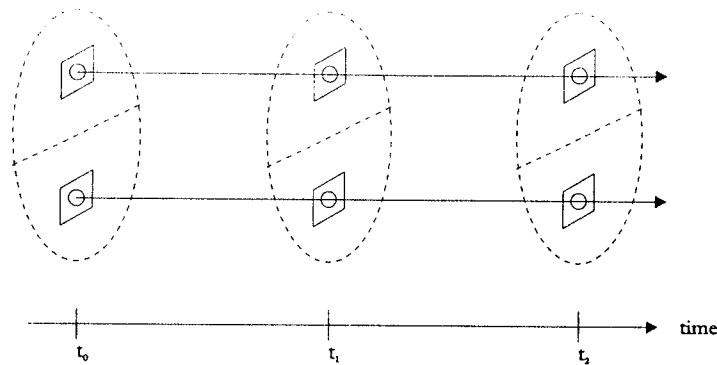


Figure 10.3 Trajectories

It is immediately clear that figs 10.2 and 10.3 are, in a sense, duals of each other. Epistemologically, it is 'virtually' identical to say that:

- 1 the love binding Alceste and Célimène forces them, act after act, into their place as lover, despite their character differences and arguments, until the final crisis; or that
- 2 Alceste and Célimène are two subjects who seduce each other, and weigh up at each moment their interest in continuing the relationship; only the reading of the play confers on their conjoint histories the appearance of a history of 'one' love relationship which, in the end, turns out unhappily.

Depending on one's point of view, one opts for (1) a structuralist or (2) an individualist approach. What seems to me to be objective – that is real – is that there is a relatively stable interweaving of behaviours. Whether fig. 10.2 or 10.3 is the most 'real', or whether one gives 'consistency' to the other, is, in my mind, simply a question of 'relevance': it is a property of discourse and not of reality. Let us finally introduce here the metaphor of the weaving of scarf.

The weaver first lays down the threads of the *warp*, creating a system of transversal places analogous to those in Fig. 10.2. Then the shuttle is passed back and forth through these places, leaving in its wake, as a trace of its trajectory, the threads of the *woof*. The *heddle* moulds the shuttle's trajectory to fit in with the warp's places. Once the fabric is taken out of its frame, what gives it consistency? Without the warp, the threads of the woof would get tangled. Without the woof, the threads of the warp would simply sag.

I would argue – and this is my basic tendency – that the warp (Fig. 10.2) provides the *form*, and the woof the *matter* of the fabric's substance, in Aristotle's sense. A positivist tendency would argue the contrary (here we leave the metaphor behind) that the only reality observed is the set of trajectories in Fig. 10.3, that is, that the system of places and the structure (that is, form) exist only in the theoretician's mind. In any system of thought (in Althusser's terms) which seeks to reproduce the social fabric in a clarifying way,¹⁰ it is on the other hand difficult to forget that the actors certainly presuppose that they

will contribute to the weaving of a love relationship, businesses, state, or whatever. Their whole strategy derives from that. Célimène and Alceste are, moreover, but phantom-like beings (who can coincide with real contingent beings) who give flesh to a schema: that of a particularly contradictory love.¹¹

Let us stick to the criterion of relevance: one can narrate history however one likes – it will never be the real, but one must narrate it as well as possible. Despite the seeming legitimacy of its ‘positivism’, individualism forgets that the ‘habitus’ and the ‘map’ at an individual’s disposal are the products of a structured social totality which exists prior to their actions. One does not throw oneself into a love relationship when love does not exist, or when couples are linked by elders in their family line to fulfil reproductive strategies.¹² One does not seek to sell oneself as a slave when the only acceptable relation of productive subordination is that of wage-labour. Moreover, one can pursue with one’s attention a beloved who does not reciprocate, on the condition that he or she pays attention to you, if only sadistically.¹³ Similarly, one can apply for a job because one knows that wage-labour exists, and nevertheless remain unemployed. Thus the analysis of the real social fabric must start from the existence of social forms recognized by agents (even if the theory furnishes a different representation of them than do the actors),¹⁴ locate the institutions which prop up these forms, and account for the willingness of actors to play the required roles.

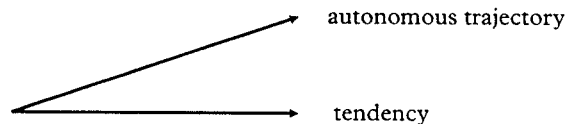
But one goes beyond the limits of relevance (towards structuralism) when one reduces actors’ *ways of acting* to their roles. This amounts to forgetting that each actor has his or her own style.¹⁵ In other words, habitus is not a programme that obliges the individual trivially to act in conformity with the necessities of reproduction. Habitus is a willingness to play the game, but in accordance with autonomous aims, and even to quit playing if the possibility and interest arise. In these senses, habitus not only reproduces reality: it transforms and even engenders it.¹⁶

The refusal to reduce behaviour and intentions to structural requirements is, as is well known, the point where Marx’s ‘dialectical’ materialism breaks with Feuerbach’s ‘metaphysical’ materialism (‘metaphysical’ here denoting the hypostasis of immortalized structures): ‘The materialist doctrine which takes men as products of circumstances and education, thus taking transformed men as products of other circumstances and a modified education, forgets that it is men themselves who transform circumstances and that the educator himself must be educated [...]. The coincidence of changed circumstances with different human activity or self-change, cannot be considered and rationally understood except as revolutionary practice (the 3rd These on Feuerbach, 1846).

This position, which led to Bourdieu’s break with structuralism (1987, p. 24), goes back a long way and comes out forcefully in all of Marx’s work. Beginning with his thesis in philosophy on *The Difference between the Philosophy of Nature of Democritus and that of Epicurus*, the young Marx identified rectilinear fall as the ‘relative’ existence of the atom, as it is determined ‘in itself’ through its relation with the rest of space, and its ‘angle’ as the manifestation

of its 'for itself': 'The movement of falling is the movement of non-autonomy [...]. For the atom, declination is, in its heart, that which can struggle and fight'.¹⁷

In this intellectual schema, the possible divergence, when compared with a tendency determined by the totality, is Lucretius' 'angle' or 'clinamen', its similarity with differential reasoning shown by Michel Serres (1977). I will schematize it as follows:



This same schema appears in the '*18th Brumaire of Louis Bonaparte*'s (1852) famous thesis: 'Men make their own history, but on the basis of conditions which are given and inherited from the past', a point of departure claimed by Giddens (1984) when he too attempts to go beyond the structuralism/individualism dilemma. To return to our metaphor, the woof's threads can move away from their predestined place in the warp, creating holes or folds in the fabric! This is why there are crises and why the problem of regulation arises.

Why thus do trajectories diverge? One could answer, 'Why not?', if one believed in human freedom without limits.¹⁸ One could also seek positive reasons for such divergence. These last involve two different orders of equal theoretical legitimacy which take on varying importance in different cases.

Firstly, there are reasons which are external to the relation. In an overdetermined whole, each agent belongs to several structures and is endowed with several 'habitus', belongs to several 'cities', or 'natures' as Boltanski and Thevenot (1987) would say, which all contribute to the definition of his/her 'style'. He/she can thus be led to protest against, and even denounce, the place and role assigned him/her, appealing to other norms and interests. Conversely, the form and history of 'a' concrete relation depend on the styles of willing agents, necessarily adapting themselves to these last as much as adapting these last to themselves. This is why 'one can never step into the same river twice': no two love relationships are alike. Nor are there two identical unskilled workers on an assembly line, this particular form of work organization itself being dependent on the existence of 'conveniently styled' labour, whether involving women, peasants or immigrants, each having their own history and style.¹⁹ The variability of agents' styles is no doubt the most direct vector of the reciprocal overdetermination of structures in which these agents are co-present. A love relationship between yuppies does not have the same dimension of dependency as one between a bourgeois and a non-working 'girl fit to be married off'.

Just as important, if not even more so (in that they lead to the 'possibility', and even the 'necessity' of crises), are the causes of divergence within the

relations, that is, those result from the relation's *contradictory character*. Actually, in its plainest form, the *difference* between the terms in relation is the formal operating condition of external causes. But I am speaking now of the *opposition* or *struggle* that unites the terms in relation. Our sketchy definition of love relationships immediately gives rise to an internal cause of divergence: each person is inevitably led to complain that the other doesn't give him/her enough of what she/he lacks. Hence the necessary form of the crisis: the lover's quarrel that recurs in act after act in *Le Misanthrope*, despite Alceste's desire and Célimène's cleverness. They are clearly in love with each other and want the best for each other, but only so as to 'find' or 'realize' themselves individually.²⁰ In the case of wage relations, the very nature of the relation (extraction/sharing of added value) just as obviously implies struggle and divergence.

Hence the synthesis of Figs 10.2 and 10.3 is more complex than it at first seems. Trajectories tend to veer away from the requirements of reproduction of places, the latter being thus punctuated by 'revamping' and 'readjusting' which I will call 'minor crises'.

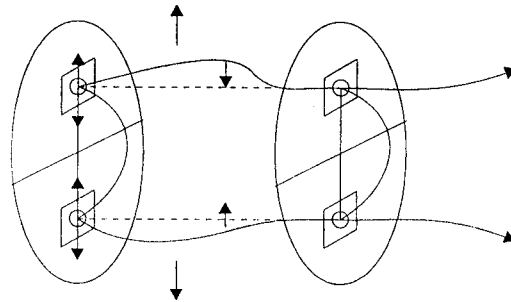


Figure 10.4 Minor crises

During the first few acts of *Le Misanthrope*, the *result* of fighting is to re-establish the unity of the love relationship at issue. Note that 'unity' and 'struggle', two aspects of a contradictory relation, themselves form a contradictory couple. There is a *unity* of 'unity' and 'struggle': struggle maintains unity and unity maintains struggle. Alceste remains misanthropic, Célimène remains flirtatious, and, while each of them satisfies his or her need for the other, they simultaneously prepare new divergences which lead to further fighting. It is this kind of unity – by which 'unity' (of the elements in relation) is maintained despite, and even because of, their 'struggle' – that the dialectician terms *regulation*.

We can see here how this conception goes beyond and engulfs Canguilhem's view. As individuals, Alceste and Célimène were 'at first strangers'. But regulation bears on their relationship only insofar as they are lovers, its result being to smooth over and to contain their differences. These last derive, on the one hand, from the fact that their 'styles' or 'natures' were already different before coming into relation (she is 'worldly' while the other is 'other-worldly', as

Lucien Goldmann might say). On the other hand, the accumulation of differences is also due to the ever contradictory character of love relationships: there is something (a cause) *within* a relationship that poses a problem of regulation. Furthermore, regulation does not result in a transcendental 'norm' nor 'rule': it is immanent, being the very unity of the relationship. Their love is what it is as a result of their incessant fighting.²⁰

Here a question arises which we have carefully avoided, that is the finalism, functionalism or intentionality, of the *mode of regulation*: fighting. Well, it depends! For fighting in fact 'eliminates points of contention'; it results in the re-establishment of unity; one might argue that it fulfils this function '*ex post facto*'. It does not fulfil, it '*ex ante*' in Act 4, Alceste begins the fight with the intention of breaking up (or so he tells Eliante). But doesn't he suspect deep down that what has already worked so well (a good row) will work again? For Célimène, it is clear that the fight already has a goal of res-establishing unity: it is a foreseen and scheduled audit, that is the price which has to be paid for holding on to Alceste while remaining flirtatious. But many lovers *institutionalize* the mode of regulation by engaging in marriage counselling, being separated regularly, and so on. In this example one sees that regulation modes can vary: intermittent separations can fulfil the function of regular fighting (Exit or Voice, as usual). The result (the maintenance of the couple) may remain contingent, but may also itself be institutionalized in the form of marriage (Loyalty). Every institution involves obligations through which agents give up – in a 'contingent but defined' way – the freedom to interrupt their relation or seriously to alter its form. This takes away nothing of its contradictory character.

I will term 'major crises' the moments at which the formerly institutionalized compromises and their modes of regulation are no longer able to reproduce a relation (or a system of relations): 'struggle' wins out over 'unity'. For our protagonists, the major crisis breaks out in act 5. Célimène has gone too far, and Alceste has said too much. 'We can no longer go on as before': the bowstring is broken: the fabric is torn.

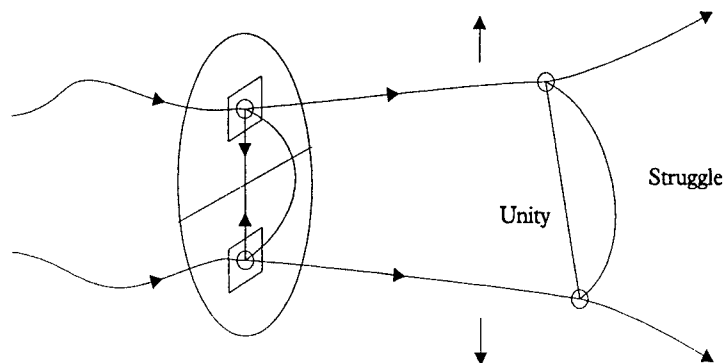


Figure 10.5 The major crisis

Three outcomes are possible:

- 1 The actors separate, and their trajectories thus no longer partake of the same history. It is the 'final crisis' of the relationship.
- 2 The form another kind of relationship: 'Let's just be friends'.
- 3 They renew their relationship, with another institutionalized compromise and another mode of regulation.

Célimène proposes the third solution: marriage. Alceste makes a pretence of negotiating: yes, but in his desert. Give up the world? Célimène cries out, frightened. It's over. Alceste choses the first solution. It is a moving scene, rich in dialectics! In this major crisis, as in the minor ones, the (manifest) external causes must not be allowed to veil the internal ones. If love is destroyed, it is because Alceste and Célimène 'were strangers to too great a degree from the outset' (Canguilhem would say) – their 'natures' were too different (worldly for one and other worldly for the other) and ended up making any agreement or arrangement impossible (as Boltanski and Thévenot would say). This is certainly so, but it would be a bit naïve to be satisfied with such answers. Célimène didn't speak her piece. Alceste 'seized the occasion'. Like the Princess of Clèves who, in the end, refused the Duke of Nemours's hand though her passion had become legitimate, he chose the desert, recognizing the impossibility of absolute love ('You find everything in you, and me wholly in you'). He preferred nothing to institutionalized compromise, arrangements and relative solutions.²¹

Note that the contradiction within a love relationship which necessarily leads to major (though not necessarily final) crises is only perceptible to the literary critic, psychoanalyst or sociologist. The theoretician (or the playwright who takes his or her inspiration from 'love problems') analyses the 'anatomy' of the relation, its 'internal', 'profound' and 'esoteric' schemas.²² He/she analyses the relation for itself and its contradiction, independently of the agents' 'styles'. This does not mean that he/she must or has the right to neglect these last for there to be a relationship, the agents must want there to be one (or resign themselves to it), and they must monitor it and direct themselves to it. This points to the defect of structuralism, that of abstracting the agents, as if there were love relationships, wars, exchange and wage relations without love strategies, warmongering, job applicants and merchants: just 'place'-holding phantoms.²³ A generic relation, like a particular realization of this relation, exists only as an abstraction or an acutalization of practices, and these practices exist only if need is transformed into projects and practices.

For Alceste and Célimène, there is no love relationship that reproduces itself. There are loving feelings which are deployed as tactics and strategy. Alceste wants Célimène to be his, and for her to be like him (even if we suspect that if she were like him, he wouldn't want her anymore). Célimène wants to hold on to Alceste, she doesn't want him to be like her, but wants to remain as she is. Their strategies turn out to be compatible for four acts (thanks to regulative fighting) but then can no longer keep them 'under the regime'. As long as the

love affair lasts, the misanthrope wants to be 'intra-worldly', and not very adeptly acts somewhat 'prudently' notwithstanding. With the help of his friends, Philinte and Eliante, he 'nevertheless' makes a worthy effort not to insult Oronte immediately (for a major crisis immediately set off) and not definitively to lose Célimène. He nevertheless tries to 'play the game', follow suit, apply the codes of worldly life and make a formal display of love; in a word, he follows 'surface', 'exterior' and 'exoteric' 'rules', worldly and gallant codes.²⁴ The comic element derives from the fact that his nature stops him from carrying them out; but he knows them, and, while cursing them, tries nevertheless to follow them. The problem is that the combination of the codes and his own style leads him to a trajectory that diverges seriously from that of the world around him. For Alceste, as for Célimène, the crisis does not arise from the fact that, structurally, there is no such thing as happy love. It arises because each person 'has gone too far'.

In the duality of the warp and the woof, this story can be read in two different ways. At a profound level, it can be read as a love relationship caught up in the cyclical pulsation of unity and struggle, or in the dialectic of fusion and autonomy. At a superficial level, it can be seen as an external relation between two independent strategies. Fights are the mode of adjusting these strategies into a love 'regime'. But there comes a moment at which the partners' wagers, hopes, reservations and practices turn out to be irremediably incompatible. Love must be transformed or disappear.

3 Values in Process and Regimes of Accumulation

I will now briefly return to the concepts of values in process, accumulation regimes, and the 'warp/wool' duality, as they have been originally used in analyses in terms of regulation, that is, in the CEPREMAP report (1977), and as I have developed them (1979a, 1983a). This will allow us to clarify the link between economic studies and the preceding epistemological considerations.

Rereading *Capital*, Étienne Balibar stressed the extent to which commodity circulation between capitalists and the proletariat results in the reproduction of the structure of wage relations. The *conditions* of this latter (and of the circulation to which it gives rise) seem, in effect, to be identical to the *result*:

	A →	P ^c ...	M ... →	A'	A
Capitalists	Money-capital	Production conditions	Products	Money	Money-capital
Proletarians	Labour power	Money V		Subsistence goods	Labour power
	F →	V	→	M	... F

Figure 10.6 The reproduction of wage relations

Figs 10.2 and 10.3 have been superimposed here, and Althusserians have above all given priority to the 'vertical' dimension (the system of places) therein. Indeed, it suffices to consider the graph 'straight on' (that is, with the time vector pointing towards the reader) instead of longitudinally (with time running left to right) to obtain the famous double circuit of reproduction.²⁵

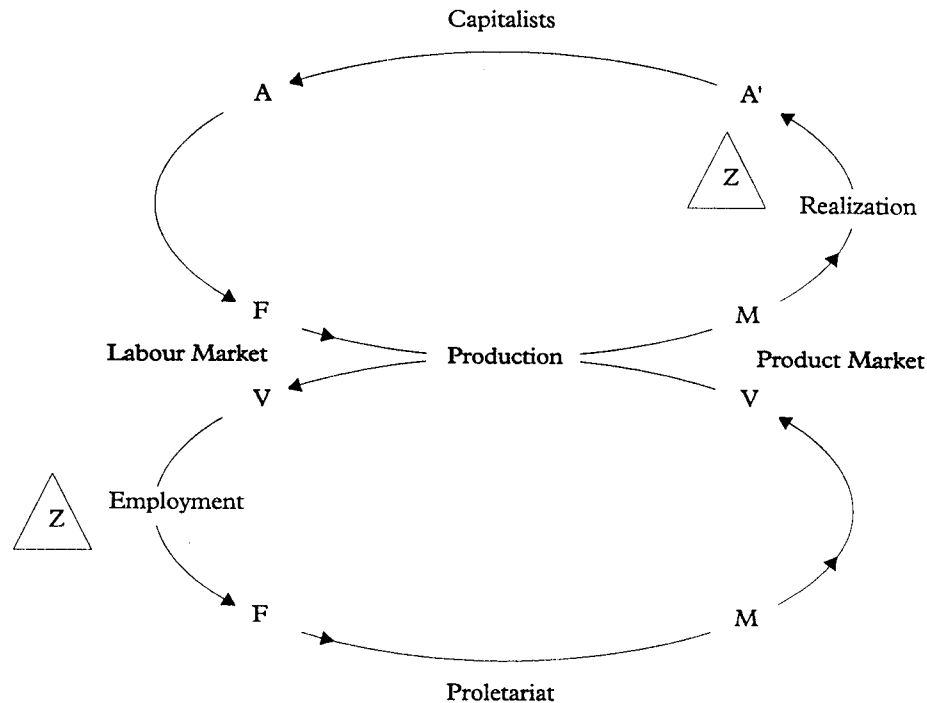


Figure 10.7 The 'double circuit'

Seen in this way, reproduce in fact seems to be 'non-contradictory'. All studies done by 'regulationists' can thus be understood as three-fold efforts to show: that capitalist reproduction 'is not self-evident'; why, over long periods of time, it continues 'nevertheless'; and, why, after a certain amount of time, a major crisis breaks out.

Today these points are well known. First of all, the simple reality of market relations, that is, the capitalist producer's uncertainty as to the social validity of the commodities he/she proposes, introduces a radical asymmetry between commodities and money: money is the 'unconditional' general equivalent of commodities, the conversion of commodities into money being, on the contrary, a 'perilous jump', indicated in Fig. 10.7 by the letter 'Z' (for 'dangerous curve'). The flow of commodities from the graph's north-east loop must be correctly correlated (in volume and value) to the demand expressed in the south-east loop, but also – especially the 'accumulation-investment' loop (purchase of production goods by capital-

ists), and to all the other complications brought about in the socio-economic fabric by the State, other social classes, and so on. Uncertainty, in this sense, constitutes the 'formal possibility' of crises. Its necessity is introduced by accumulation itself which tends to increase the flow from the north-east, while containing growth in the south-east loop. This contradiction is at the core of wage relations. It can be summarized in one sentence: either the exploitation rate is too high and an overproduction crisis will soon loom on the horizon, or it is too low and an underinvestment crisis will arise. This rate is itself a function, on the one hand, of distribution relations (consumption norms) and, on the other, of changes in production (production norms), and in particular of productivity increases and changes in the organic composition of capital.

An accumulation regime is a mode of transformation comprising compatible norms of production and consumption. Such a regime can be described as the repeated given of the production of productive sectors or branches and its corresponding demand: this is what is known as the reproduction schema or macroeconomic structure. We have shown that the 'Fordist' regime could be described as establishing a parallel between the growth of productivity, the consumption norm of wage-earners, and the composition of capital. In other words, it follows a schema of intensive reproduction with a widening of wage-earner consumption such that parallel growth takes place in sector I and II of net product volume, which is related to the number of productive wage-earners. This accumulation regime is thus a possible kind of warp for capitalist reproduction:

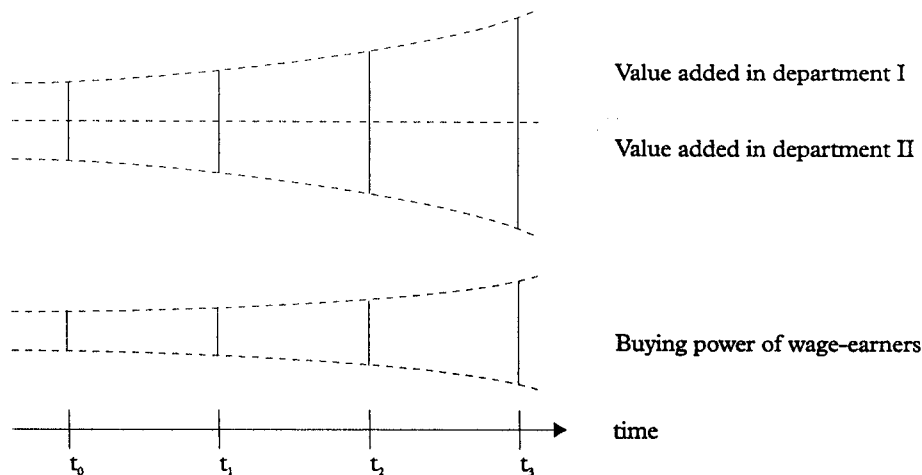


Figure 10.8 Accumulation regime as warp

Let us return to Fig. 10.6. The graph's longitudinal dimension must be taken seriously. One can consider agents (capitalists and proletarians) as owners of 'values in process', that is of the 'flows' of value of the respective generic forms:

...	→	A	→	P...	M	→	A'	→	P'...
and ...	→	F	→	S	→	M...	F	→	S...

This concept of 'values in process', changing from one form into another, is introduced in chapter 3 of *Capital* and developed at length throughout the whole of volume II. The millions of individual flows constitute the woof of economic reality, that is, the 'flow' of values in process. In 'everyday life' (*Alltagsleben*), they are in fact the *only* positive reality. In the case of capital, Marx pushes the textile metaphor so far that he shows capital's thread-like structure, composed as it is, of three intertwined strands: the cycles of Money, Commodities and Productive capital (volume II).

Along this stream, values in process change forms, as can be seen if one traces out Fig. 10.7's double circuits over time:

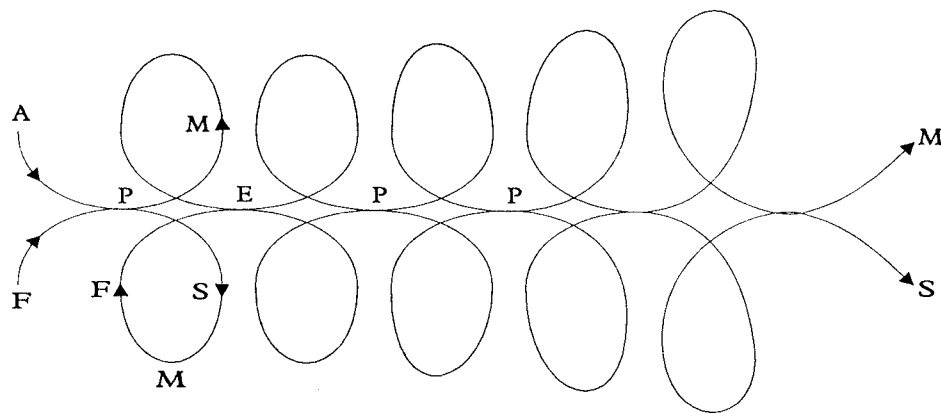


Figure 10.9 The flow of values in process

In reality, the two circuits in this figure are made up of a myriad of individual flows: the flow. 'Ex post' when the accumulation regime is stabilized, this circuit, in its structure, must exactly match the proportions repeatedly described by the reproduction schema.

The famous Marxian equalities in the reproduction schema outlined in volume II expressly precisely this duality. The laws governing the flows of nominal value – as expressed in money – are as yet unknown. The laws of money-wage and price formation are 'external connections': they regulate the exchange norms between supposedly independent flows. Knowing normal prices, and putting into play the capitalists' and wage-earners' habituses, agents must direct their value in process so as to respect the accumulation regime. One can interpret the general problem of the transformation of values into production prices as the study of the conditions under which external connections (laws fixing wages and production prices) are compatible with recursive proportions of the accumulation regime in force.²⁶