

# **A Biologist's View of Individual Cultural Identity for the Study of Cities**

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# **A Biologist's View of Individual Cultural Identity for the Study of Cities**

## **Summary**

The behaviour of urban populations is compared with the systems directing behaviour in individuals. This is both a metaphor and a mechanistic parallel. The biological model draws upon recent developments in brain research and psychological and cultural anthropology. The development and operation of the personal value-system are seen as constituting Identity in an individual, and Culture in a community. A mechanism is proposed by which social attachments between individuals lead to the adoption of new values into the system. The ability to differentiate own group from other is seen as intrinsic and socially necessary, made peaceful by specific values and adversarial by others. Identity development is such a complex process that it cannot be predicted in detail, but explicated in retrospect. A model may be useful in understanding conflicts of values, and how some are modifiable and others not.

**Keywords:** Identity, Cultural meaning system, Values, attachment, Social identity theory

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## A biologist's view of individual cultural identity for the study of cities

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My proposition is that we can learn useful things about human societies - and today that means urban human societies - by considering the functioning of the individual humans who make up societies. In one respect this is a study of the properties of the material of which societies are composed, human beings. But I will start by looking at the second aspect, the metaphor of humans as micromodels of societies.

What is the value of a metaphor? An English saying goes: 'Life is like a bowl of cherries'. Does it tell you more about cherries than about life? Maybe it is a way of categorising familiar things in a new way. Categorising makes a major contribution to understanding.

I propose in this biological account that four of the most important activities of the mind are recalling, categorising, associating things together, and evaluating. As an example, you listen to me, you hear words which you recall having heard before, you equate them with the earlier message, that category of messages brings many associated ideas, in the light of which you give my words the value they characteristically have. This may be good or bad, right or wrong, pleasing or displeasing, and often leads to appropriate action. What a metaphor does is to offer a novel categorisation, which may lead us to see fresh associations. This may allow us to see something which had seemed to be a problem in a new way, which helps us to decide what to do about it.

This argument, like any concerned with cultural issues, is presented from a specific cultural viewpoint, in this case the view of a middle-aged middle-class Englishman working in International Education. Workers with other cultural backgrounds, or working in other cultural fields might produce other constructions. The questions we ask give information about us, just as the answers give information about the subject. If we are to draw universally valid conclusions from this study, we need to test the cross-cultural validity of the premises and the conclusions. Rules for testing this were proposed by Berry, Poortinga, Segall and Dasen (1992), recommending that we should accept as universally valid any concept which satisfies three clear requirements: theoretical face validity, a body of supporting evidence from many cultures, and absence of contradictory evidence. These three criteria should be applied to the present argument.

The setting: International Schools

The International Schools, where I have worked as a Biology teacher and as Director of Admissions, exist to serve families of many cultures, usually displaced through the employment of one parent in a foreign country. Accordingly the schools aim to provide an education which will be valued in a wide range of home countries. To a greater or lesser degree they also support the home culture. The client families are most often from the Western, capitalist, globalist community.

It became clear to me that children differ widely in their capacity to adjust emotionally and culturally on arrival in the new schools and country. Instead of adopting the popular 'Third Culture Kid' or 'Global Nomad' paradigms (Pollock & Van Reken, 1998), or looking at the damage or deficit suffered by the mobile children, I took the process of cultural adjustment to be a special case of the normal processes of childhood development, and studied cultural process rather than content. Minoura (1992), writing of the adjustment of pre-adolescent Japanese children, says: 'For young

children who have not yet acquired Japanese patterns, there are no differences between Japan and the United States. For young children everything is new and strange.’ This led me towards a study of the development of cultural identity in children at international schools in The Netherlands, and the variables which may affect the process. The model which has been developed for this project may have uses in other situations of cultural challenge and change.

I propose a heuristic model (which should not be taken for a reductionist attempt at a full explanation) of the nature, action, and acquisition of values. This model extends to relate cultural values to personal identity and communal cultures. In order to consider the vital properties of living systems which are seen both in individual humans and in human social groups, it is necessary to start with a consideration of the characteristics of life.

## Life

It can be said that Life is a state of continuous chemical activity. In a random world chemical reactions use up their materials and stop, or change the local conditions - perhaps by making things too hot, or producing a lot of waste products - with the same result. But living systems have ways of working by many small steps, generating warmth but not flame, conserving energy and raw materials, performing many different chemical tasks in separate cells or tissues or organs of the body. Complexity becomes possible as long as the system has the property of defying randomness. In a random environment destructive processes will occur as rapidly as constructive ones, but some systems may by their organisation have a bias towards outcomes favourable to the maintenance of life-supporting conditions. They might develop a surface covering which conserves scarce chemicals, or hold water which might otherwise evaporate. Under these circumstances where conditions are to some extent regulated, activity will go on longer.

We even have chemicals which can replicate themselves and begin the process of growth as a new unit of life. The new unit must not only survive in its own right, but must be able to survive at all stages in its growth from embryo to adult. Over the whole span of plant and animal evolution this has led to a progressive association of ‘child’ and ‘adult’, such that the larger, more capable parent individual is able to take some control over the conditions of the smaller younger one. From this arises social life. In animals activities are effectively managed by nervous systems, which enable us to negotiate our path through a varied environment of heat, cold, food, air, water, and other creatures, avoiding hostile extremes in very sophisticated ways.

As humans we distinguish ourselves most frequently from our nearest evolutionary relatives by the size and complexity of our brains. I want to look at what brains do. In doing so I will propose that values, identity and culture are all properties of the functioning of the brain which *must* occur if it is to guide us through this diverse world. Later we can consider whether the diversity found in modern cities is too great a challenge for our brains.

A biological model will suggest the role of values in the brain

Values are widely recognised as strictly human properties, which affect us through the activity of our brains. There are no values in an empty room. We humans use values to guide our thoughts in evaluating and understanding phenomena which we observe or experience, recall or imagine, and the values often have motivational power which leads to actions. As Geert Hofstede (1991) wrote, ‘values are broad tendencies to prefer certain states of affairs over others’. On the scales by which we measure the world, these are the chosen settings of what is right or normal.

The work of the neurologists Edelman (1992), Damasio (1994) and Cacioppo (Cacioppo et al. 1992), among others, lead to a perception that values are acquired properties of the brain which incline it towards certain decisions. The human brain is seen as having evolved a unique and immensely complex capacity for remembering, associating, identifying and categorising. With this came the ability to represent experiences of the world both internally in imagination and externally in speech. The human brain is so complex and there are so many issues to be considered in evaluating what we see, that decisions to act would just take too long. We can only be led to a rapid decision by means of inbuilt bias which short-circuits the cognitive reasoning process in recognisable categories of cases. These overriding short-cuts to a decision have been developed through the experience of successive generations and found to be appropriate for survival in that environment. In turn they are developed by children as a result of their social experience, from the words, behaviour, and visible emotions of people who are important in their lives - their parents, and to varying extents their teachers and their peers.

We must have an alternative signalling system to override the cognitive - and we have: we are aware of value-decisions through 'gut feelings' of right and wrong, referred to as 'Somatic Markers' by Damasio (1994), and signalled by our emotions. If we do the 'right' thing or make a 'right' judgement of an event which we witness, we feel good; if not we feel uneasy. Our values enforce compliance through our emotions, even in this cognitive age. Some value-judgements seem to us more important, and in some way existing on a higher plane than our material world. They comprise those more theoretical generalised rules abstracted from everyday cases, such as 'fairness', 'truth', 'equality'. We know these as moral values. Kohlberg (1976) has pointed out that they are the latest type of moral judgement to develop in a child. In some societies they are rarely developed. But societies differ in which rules they regard as moral, and which as merely normative, and the property of 'morality' is itself attached to values in culture-specific patterns. There may be other process values which affect the way substantive values operate, which give them priority when one value directs towards one type of behaviour which is opposed by another.

Schwartz and Bilsky (1987) have outlined a scheme of values which they describe as either terminal values - chosen objectives - or instrumental values - chosen processes. They tried to relate a list of human values compiled from a number of sources to what they regard as essential domains of human need. Overall, they describe values as 'cognitive representations of three types of human requirements:

- biologically based needs of the organism
- social interactional requirements for interpersonal communication
- social and institutional demands for group welfare and survival.'

Each child develops an immense number of values, and has to relate those values together into one system, avoiding conflicts of values and clashes of priorities. These patterns are individual, but all children reared in one society are likely to be exposed to similar units, and to build them into recognisably similar patterns. Patterns of values which motivate us to action will govern behaviour. Each action itself constitutes a social episode (Harré, 1974); it will be evaluated by the actor and by onlookers, from whom the actor will gain a reflected evaluation. This is a daily test of the consonance of values, imposing a repeated pressure towards conformity. However, the visible action we perform or observe is the outcome of several stages in the mind of the actor: perception of a situation, evaluation and categorisation of that event, choice of an associated action, and an evaluation of that action. This applies as much to speech as to movement. Stewart (2001) has described culture as being 'double-coded', responding to a culture-specific perception, and producing a culture-specific expression. The interlocutor(s) will do the same when they evaluate what is seen, and give feedback which is rich in layers of cultural coding.

Maintaining close and communicative social contact is a necessary skill for social living, one of Schwartz and Bilsky's (1987) major divisions. The importance is evident from the amount of time humans spend practising the activity. In our communication and in our reflection much time goes into making evaluations. We tell stories, we read novels in the train, we gossip, we indulge in emotionally-engaging replays of imagined activity. Our literature is seen as at its best when confronting us not with obvious moral decisions, but subtle questions of priority. 'To be or not to be, that is the question.' In Hamlet's case the choice was between the priority of action or of acceptance, a common divider between the cultural norms of the USA and Europe, or between the West and the East.

What is characteristic of a society is a set of integrated values which can be used to give a single vision of what the world is and how it works. It could fall within one of the common definitions of a 'culture', but the cultural anthropologists such as D'Andrade (1995) follow Rohner (1984) in calling it a 'Cultural Meaning System'. The 'meaning' is not intrinsic to the object, but in the vision which we have of it and the motivation which it evokes in us. The cultural psychologist Michael Cole (1996) uses the term 'artifact', but his description makes it clear that he applies it equally to real and imagined objects and events. We see a thousand things and events around us and in our minds all of them possess 'meaning', which is a dimension through which they can be related and integrated into a single system.

So we can summarise by saying that biologically values are

- a bias in judgement which helps us make decisions - we can try mentally substituting the word 'bias' for 'value'
- points on a scale which we come to see as 'right' or 'normal', but others see differently
- applicable to generalised situations which are recognisable and repeated
- experienced through social interaction
- integrated into a consonant internal unconscious system
- shared with those adults and children in whose company we developed them
- mentally rehearsed in imagination through stories and literature, concerned with conflicts of love and loyalty and truth: we are naturally moral.

When we look at the actions of a person and evaluate them, what we are looking at is the outcome of their decision-making, which is governed by their values, their definitions and interpretations arising from experience (meanings), and their value-priorities.

I would further propose that:

- the set of consonant values which governs my behaviour is so characteristic of me that others refer to it as my *Identity*
- the set of consonant values which I have grown to share with those in my social world is so characteristic of our group that we call it our *Culture*.

The process by which the integrity of Identity and of Culture is developed and maintained is the core property to which I shall return.

Crucially important is the tendency for the child - or the adult, as we well know - to feel comfortable in presence of those with similar values. We say we 'identify' with that group. In order to pass on to our children our value-system which has been accumulated over generations, children need to recognise their parents and bond with them. Those giving or receiving value-education need to recognise the differences which mark us off from competing groups. It seems that discrimination of Us from Them is natural and perhaps universal; it is hard or impossible to eliminate childhood

conditioning. Turner (1982) has proposed that we may identify with a group either by perceiving ourselves as sharing individual values, which he terms Social Cohesion, or more significantly through our simple self-labelling as group members, termed Social Identification. It has been argued that groups only have power over individuals through interactions which bring real instances of sharing, but the alternative, less cognitive visceral-somatic mechanism offers an explanation for Turner's finding that the power of group identity is greater. The strength of a label is sadly familiar from the sociology of football fans, civil wars and racism.

### Development of a personal value-system

So far in this account immensely complex processes of remembering and associating and categorising and comparing have been glossed over. It is one thing to say that the huge human brain does these things, and that the Somatic Marker system allows us to take strategic short cuts to reach rapid decisions, but how can the system be built? Life presents a succession of experiences which either fit or conflict with the previous cumulative system of experiences. Festinger (1957), introducing his Dissonance Theory, said that 'the existence of dissonance, being psychologically uncomfortable, will motivate the person to try to reduce the dissonance and achieve consonance. - when dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information which would likely increase the dissonance.'

That which is consonant should be accepted, and that which is dissonant should be rejected, avoided or denied. But over time other compromises may be reached. For example, all our value-systems are to some extent multiple. We behave differently in different company, observing different norms. In some cases the division goes so deep that we could be said to have multiple identities. This is sometimes seen as contravening a specific value: 'To thine own self be true', Polonius advised Hamlet. Yet Hong (1992) comments that the acceptance of dissonance is seen in Japan as a social virtue. Once again there is local difference in the perception of what is morally right. In practical terms, however, one can note that it is expedient to be able to perform more than one repertoire of behavioural norms if one lives in a city in which several codes are frequently encountered. Since the repertoires are socially constructed it could be that bilinguals might develop dual schemata and value-systems as they operate in two monolingual social contexts. Ervin-Tripp (1954) proposed this, but the work of Northover (1988) among others finds it less marked. In a wider context however, Stryker (1980) and Alexander & Wiley (1981) suggested that various 'situated identities' may develop, which are applicable to specific contexts,

It is possible that elements of a world-picture are not necessarily rationalised or learned by each generation. Bourdieu has suggested, as quoted in Bentley's (1987) account of Practice Theory, that we may inherit a behaviour pattern which he calls habitus, a social form which is copied down the generations. Such 'packages' of culture would greatly simplify the task of identity development.

The radical constructivist von Glasersfeld (1984) has described the development of cumulative knowledge as a process of trial and error resulting in the survival or extinction of the accumulating concept, like Darwinian selection which can extinguish but not innovate. However, in comparing the growth of a concept with organic evolution von Glasersfeld perhaps underestimated the significance of the epigenetic effect. Erikson (1968) invoked epigenesis as the process by which the acquisition of cultural values builds upon the foundation pre-existing at that time, under the existing circumstances, using existing skills, drawing from currently available repertoires of values. Each increment is unique, so that individual life-stories come to generate individual compendia of values. Taking the concept of evolution beyond that of Darwin, Kimura's model of Neutral Mutation Theory proposes that natural selection is usually hostile to change, and that only a rare combination of characteristics has a better chance of survival than that which has survived aeons of genetic



history. This view, though readily accepted when it was argued, is an interpretation which was unlikely to be originated by Western modernist thought. Modernist thought emphasises conative processes of empowered cognitive choice, rather than the cathectic processes of the acceptance of traditional values which seem more natural in many non-Western societies. Another dichotomy separates Primordialist identifications which are rooted in historic loyalties to land and people from Instrumentalist identifications which adjust to the needs of a given situation. The inherent strength of Primordialist identifications in recent civil wars, even when it might be expedient to take an Instrumentalist position, illustrates the resistance of the cathectic to the conative. Weinreich, Bacova and Fournier (2003), and Stewart (2000), are among those who see it as crucially important to understand this dimension today if ethnic strife is to be minimised.

The likelihood that a value will be considered salient and adopted is at least partly determined by the immediate social context. There is consensus that values are acquired through social episodes (Harré, 1974, after Vygotsky, 1962), and that the strength of the bond between the child and the 'referent other' (Keats et al. 1983), or 'validator' (Pearce, 1998) is a major determinant of salience. Among many expressions of this effect is Garbarino and Bronfenbrenner's (1976) statement that: 'In our view, developmental movement . . . is based on and stimulated by attachment, the primary socialisation of the organism to "belong" to and with social agents. This is the process by which the individual organism becomes an acculturated person.'

Of course, if there is dissonance between the existing value-system and the new value, the innovation may only be rejected by dismissing both the value and its human validator. A strong attachment to a certain validator makes rejection of values difficult. It is a commonplace that children, once attached to their parents, will absorb values easily from them. The same applies throughout life for parents, heroes, and role-models, though as the foundation becomes more solid the relative change with each new value is less, and the inertia of the moral system becomes harder to move in any major way.

Validators are more resistant to challenge if they are not physically present. The English bible says that 'a prophet is not without honour save in his own country.' Admiration is difficult to sustain in the rush of daily life. Whether god or grandmother, divine or dead, the unseen validator is beyond direct challenge, and may be further protected by the habit of unchallenged respect. Such a numinous validator gives certainty to values. If, as Festinger (1957) suggests, uncertainty gives discomfort and induces change, any effect which increases certainty should be stable and tend to persist. Religious beliefs - or at least numinous validations - confer this certainty, and it is not surprising that there is a human tendency to adopt numinous validators, whether we credit them with divine status or merely secular idolatry.

There may be other important factors contributing to the probability that a value will be adopted. 'Centrality' has been proposed by Hofman (1988) as a term defining the relative importance of a context in the daily life of the child, and hence the frequency with which the effect will be repeated. Schwartz and Bilsky's (1987) scheme of domains of human activity sketches the fields in which this variable applies.

The suggestion has been made that Identity is composed largely of values; the remainder is presumably in the realm of physical attributes and character-traits, which are customarily listed as the 'big five': Extroversion-introversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to experience (Costa and McCrae, 1985). These dimensions of difference are usually regarded as within-group, rather than inter-group variables, but Bond and others (Smith and Bond, 1998, 112-3) are building a case for regarding them as related to membership of a given cultural group. On close inspection character-traits look as though they might be resolvable into process

values, incorporated in the same way as other values, but modelled for the child more through the mode of communication than through the matter. Schwartz and Bilsky's (1987) 'social interactional requirements for interpersonal communication' come readily to mind.

More recently Harré and van Langenhove (1999) have offered a more sophisticated model of social modelling, Positioning Theory, in which they propose that the interaction of child and validator (or role-model) is not passive but a matter of active choice, specifically the subject's choice. It can still be argued that what we perceive as choice may not be the action of Free Will in the traditional sense, but nevertheless this approach recognises that the subject is influenced by role models as a result of processes, which are governed by process values.

#### Application to growing up in cities

The urban child lives in a social world, as we all do. It may be that the alternative to urban life today in Western Europe is suburban, or small town life, but probably not village or solitary life. It is therefore likely that the child encounters many more people than s/he can directly relate to. It is arguable that a small child has a relatively constant number of strong attachments, but the city will differ from a hypothetical village setting by giving a backdrop of humans with whom the child has physical contiguity but no social contact. The child will also witness the parents having no social interaction with those people, in contrast with a rural social structure, where even non-relatives may be titled 'uncle' or 'aunt'. In addition, the minority group child will witness a strong division between the parents' relations with fellow community members and with outsiders. There is a certain strength drawn from this; the child will develop the habit of being in the presence of strangers without discomfort, which makes it easier to feel comfortable on travelling abroad. Discomfort with alterity is extreme in voluntary immigrant societies such as the USA which have a core value of eschewing social separation (Stewart, 1992, Pearce, 2002). This is an instrumental value which helps to consolidate a nation where backgrounds are diverse, but equal opportunities are promised to all; it is often shown as a need to greet and communicate, even though only at a trivial level. For such an expatriate, the undeniable barrier between self and the host community can be very disturbing.

#### Cultural overlap: benefits and dangers

In multicultural cities we are concerned with a many-layered complex of societies, each possessing its unique means of internal communication and sense of distinctive identity. Tajfel, founder of the 'European school' of social identity theory, expounded what has been called Tajfel's Law (Turner, 1996), that 'intra-class similarities and inter-class differences are enhanced as category membership becomes salient.' The dangers of cultural clashes in shared social territory and the exaggeration of ethnic distinctiveness are well known social phenomena. It is enough to point out here that relatively stable plural societies do exist, probably by the acceptance over long periods of time of specific instrumental values. These may, for example, defuse confrontations by recategorising infractions of personal liberty as some less salient and less disturbing class of event.

#### Instrumental values for social coexistence

It may be practical, assuming that we have some power over social evolution, to consider what existing and what imaginable values might be helpful in generating peaceful multicultural societies. Such a huge project is beyond the scope of this paper, but is in many capable hands.

There is merely room to mention here two important caveats. First is the commonly-heard modernist-globalist claim that history has ended, and that the world's population is now converging,

by choice, into one society. This shows a failure to understand the nature of history, which exists and exerts influence within the minds of men and women, probably even in the minds of modernist men and women. It also ignores the deep differences of individual histories, and ironically, the continuous generation of fresh dimensions of difference through innovation by modernists, a process which ensures that difference will not disappear.

The second warning is related. There is a school of thought which seeks the unification of human cultures by imposing 'universal values', on the grounds that they can easily be identified and agreed. This view is disprovable in practice and in philosophical theory, but a dangerous form comes with the 'Essentialist' or 'Universalist' instrumental value that the subject's own values are the universal ones, which they have a right and a duty to impose. I believe the greatest threat to world peace is a confrontation between two idealistic powers, each convinced of its own monopoly of virtue. This is not to preach that absolute moral virtue is culturally relative, but that it is unknowable, and that without informed consent one group has no right to impose its values on another.

Can it work?

How far can schools influence children? Who, and in what roles, is in practice the principal influence on development of the value-system which, I have suggested, governs behaviour? Before analysing the effective social context of the child I would like to return to the initial perception that a study of the individual may be a metaphor for the whole.

There are numerous properties of human beings which could be applied to societies, some fanciful and some more serious. The property which I find most significant as an authentic parallel between the two levels - personal and societal - is their shared ability to stabilise internal conditions. The great French physiologist, Claude Bernard, said 'la fixité du milieu intérieure est la condition de la vie libre.' Such stabilisation is known as homeostasis, and it permits humans to live in a variety of external conditions. It proceeds in the human body by the detection of a deviation from the normal, followed by a reaction which brings conditions back towards the norm, a process of negative feedback. In terms of body temperature we usually quote shivering or sweating as two normalising responses of this type.

Perhaps a more appropriate if less well documented reaction is our response to unfamiliar values. As Festinger (1957) noted, we tend to avoid that which conflicts with our world-picture, or to devalue it. Rescher (1969, 68-72) gave an account of seven different ways in which we can cognitively adjust our meaning system to upgrade or downgrade values. I term this ability to adjust 'Cognitive Homeostasis'. Put bluntly, we work hard to avoid changing our minds.

Is the city homeostatic? Insofar as its citizens adjust their expectations of tidiness, speed of traffic, level of communal interaction, etc., it is capable of withstanding considerable variation of external conditions without stopping. There are compensating mechanisms by which we tolerate. Let's consider the construct 'How much street noise is comfortable in the home?'. One extreme is a lonely silence, the opposite is intrusive, threatening, or even damaging. As a first stage we may be able to reduce our perception of noise while not regulating the sensation of sound. This is described by Adaptation Level Theory. And if we are exposed to higher noise levels than we would like, we may adjust our personal ideal value on the scale of the construct, or we might extend the range which is acceptable. This could be done from habituation to what we once considered loud but now accept, or by a recategorisation of noise as companionable rather than hostile if we know it comes from friendly neighbours. We might even come to adopt a new construct: 'Our children are playing with their friends', in which laughter and even shouting are good, but the quality of the noise is measured on a new scale. If the noise is inescapable, but is associated with happy life-events, we

might expect it to be seen as neutral, or categorised as an indication that one is in social contact. This is a broadly positive category.

### Applying Cognitive Homeostasis

We do not arrive in cities without a personal history. There are warm-weather cultures accustomed to street life, in which family activities spill out into the public space and overlap with the lives of others. Here some intimate episodes of childhood are shared with many others. The validators are not confined to residents in the family home, which builds an expectation of wide social engagement. This expectation is disappointed in colder climates, and the neighbourly warmth replaced by what seems hostile rejection. Variations in expectation of public-private boundaries in space and sound, of proxemics, and of the quality of neighbourly relationships, are familiar. The whole arena of communicative style is divisive, and beyond it lie many equally dangerous domains of cultural difference which are less obvious, but just as damaging.

The simplest way is for the child to accept what is new. That is the way of the pre-adolescent, especially in Minoura's home country. If the experience arrives with the association 'Mother says it's all right . . .', then it will be accepted. Integration with other ideas can come later; a small child's world has many mysteries which logic must sort out later. Another way is to change the scale settings, as explained above. A common phenomenon in older people is the withdrawal from involvement with the flow of active life, to a position where the new can be dismissed, devalued, or denied, a view which is never put to a functional test. The internal schema gradually diverges from what is reality for the majority. The majority, however, is never far away in a city.

A young child, as Minoura (1992) says, has the capacity to accept many new values. At adolescence a new firmness arises as the individual prepares to be a reliable parent on whom a flexible child can depend. Both the child's readiness to weave new threads into their value-system and the adult's defence of their established system depend on process values, which Haste (1987) has called 'rules for making rules'. In the individualist West, in nuclear families, this may be a difficult time, when the child must diametrically change relationship with the parents, their major validator. Many parents here will be aware of this. In more stable or collectivist societies, or as Markus and Kitayama (1998) say, 'interdependent' societies, there may be many others who share the role of validator. They are looked up to by parents and children alike, so there is no change in relationship with them. We need not assume that teenage rebellion is essential to humanity. But in either pattern there is a clear need for internal compensations to be made such that the child continues to function effectively both in internal and external social processes. For immigrants there may be a painful choice at adolescence between the parents' Primordialist identification with homeland culture, and the peers' local and Modernist norm-system.

### Limits to flexibility

Homeostatic systems are hard to study because they are hard to manipulate, intensely resistant to change. Their reaction is part external but part internal. A pendulum swings when it is pushed; a crowd in a rush-hour tram or train has an extraordinary resistance (in some countries) to moving along as more people crowd in, yet still takes more. At either the human or the communal scale, the lack of a mechanistic response makes behaviour impossible to predict or explain, but occasionally possible to explicate with careful hindsight. Great dangers arise if we make too many assumptions about the capacity of people to accept, however, for limits of tolerance are culture-specific and local. It is not simply a matter of tolerance, the setting on the scale. We need to be aware that a given phenomenon may be categorised in different ways by different societies. Food preferences among Westerners are often health-based, or childhood memories, or conative life-style choices. In

other societies, and some Western ones, there is a religious connotation which gives both powerful validation and a group-membership of high significance, to say nothing of the early parental training which inducted the child into the belief. We see a little of this in the near-religious terms used in the debates on organic, genetically-modified, and processed foods, where the emotional force is religious in quality but the argument often uses scientific terms.

I shall close with one final metaphor, which it is tempting to see as homology rather than analogy: the defences of a human are like the shells of a Hermit crab. It has its own exoskeleton, which grows slowly, fits exactly and equips it to function internally, and to some extent externally. Being inextensible it is automatically shed at intervals as the animal grows. But it also adopts a shell fabricated by a gastropod mollusc of some kind, which it deliberately selects, in relation to its needs for security, survival in the environment, and social life. Its own exoskeleton is highly specifically adapted at the head end, but only generically adapted at the tail end for use in a variety of shells. The choice of shell is cognitive, and often competitive. It is the most visible, most recognisable part of the animal. Is it, I wonder, subject to local variation under purely social influences? Are there local fashions, which have affective - or at least evident motivational - power over individuals in that population? Is selection influenced by the selections of others? Which others? What feedback does the crab sense? Is it selected conatively, with a view to a purpose? How was such a purpose constructed? Can Hermit crabs be educated in their choice?

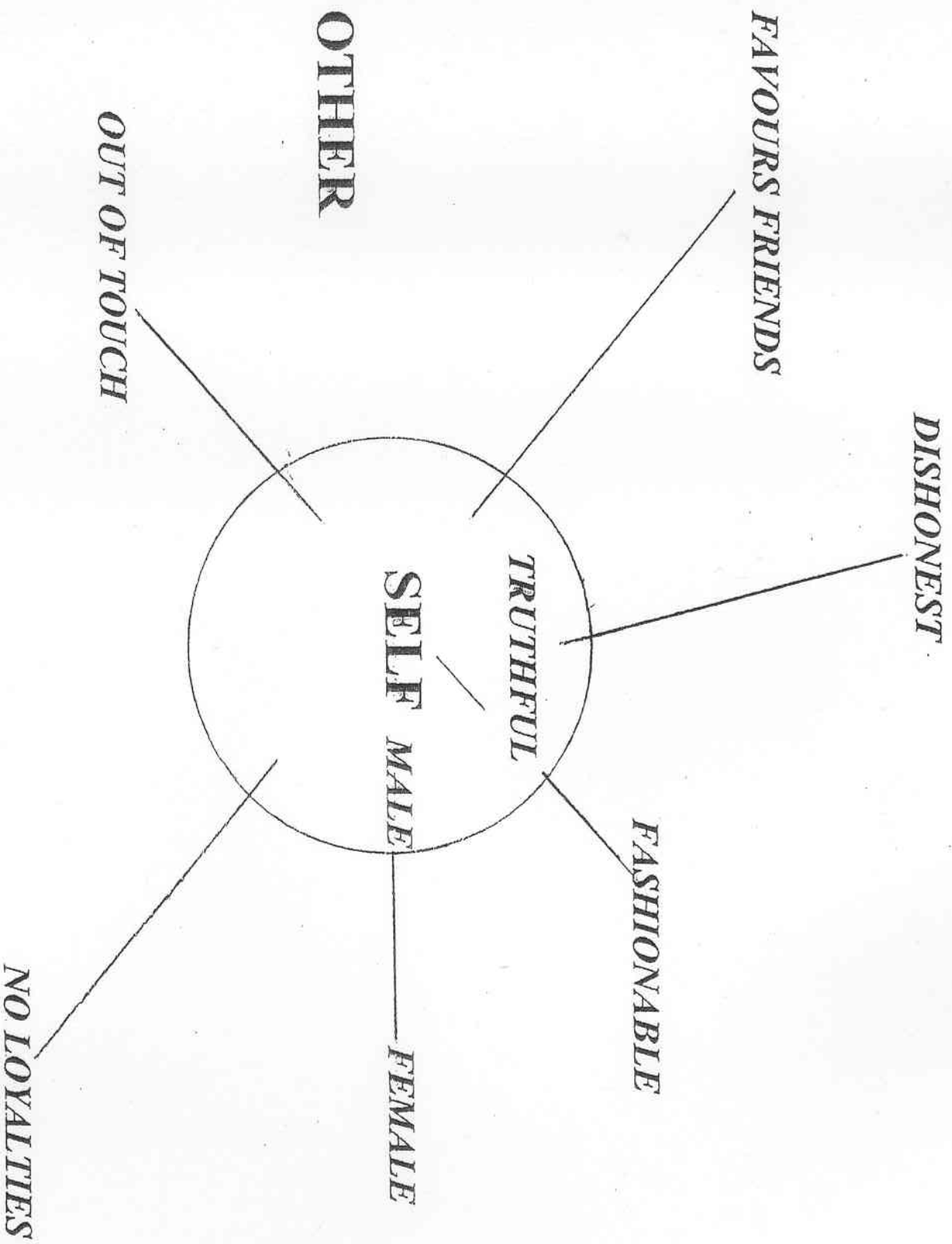
Can we?

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# CONSTRUCTS OF IDENTITY





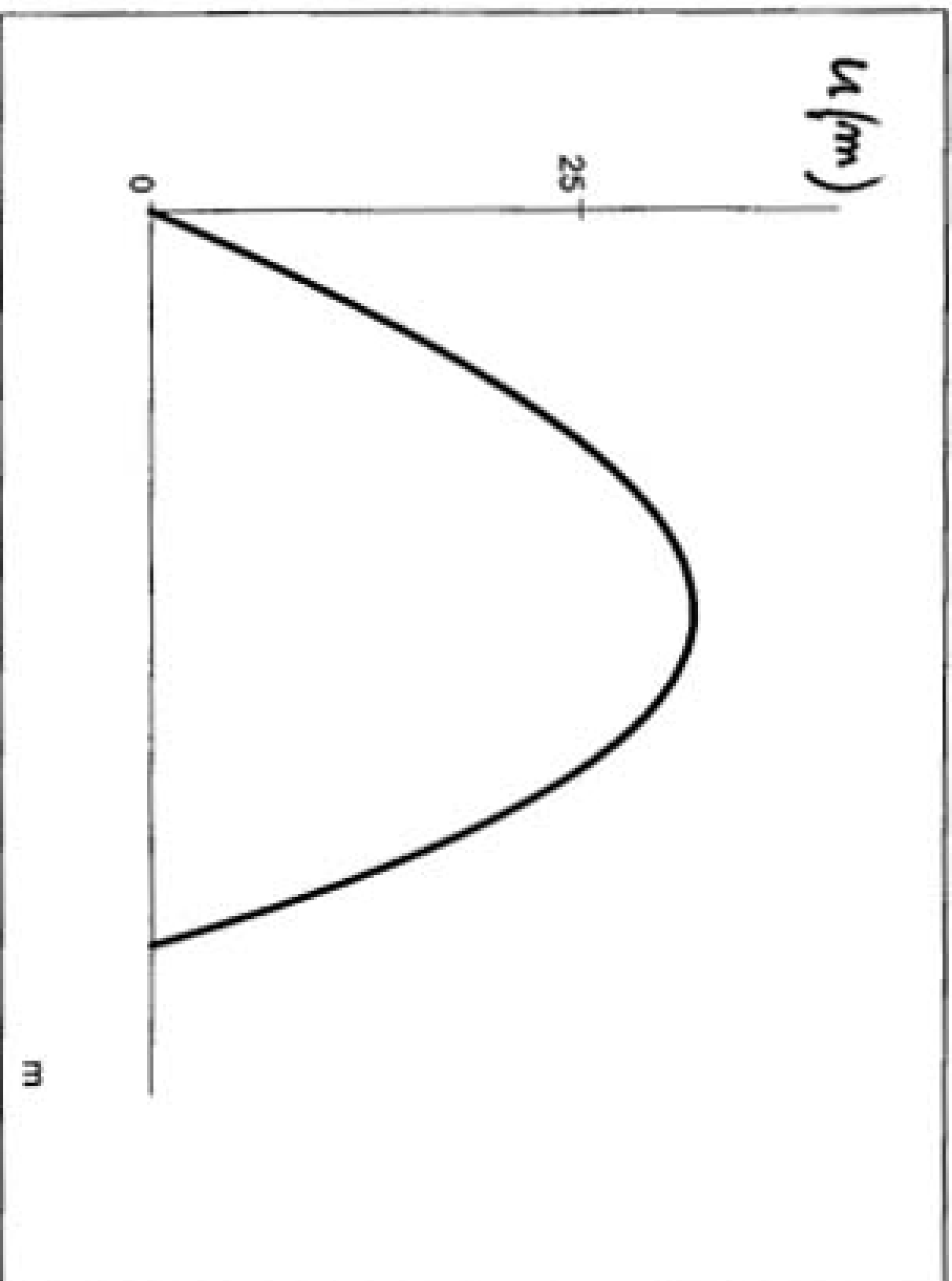


Figure 1: profit function  $\pi = u(m)$

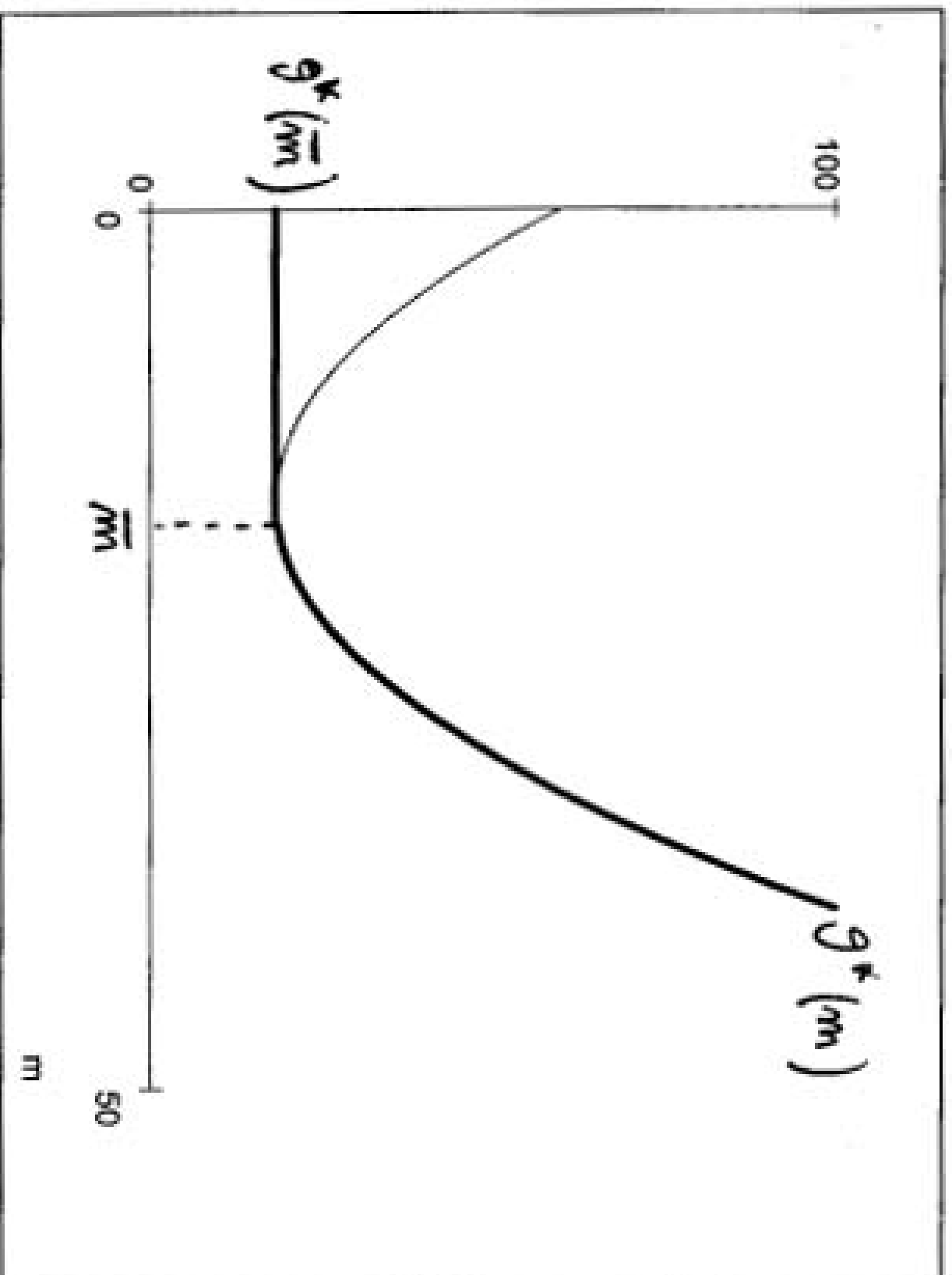


Figure 2: Optimal policy

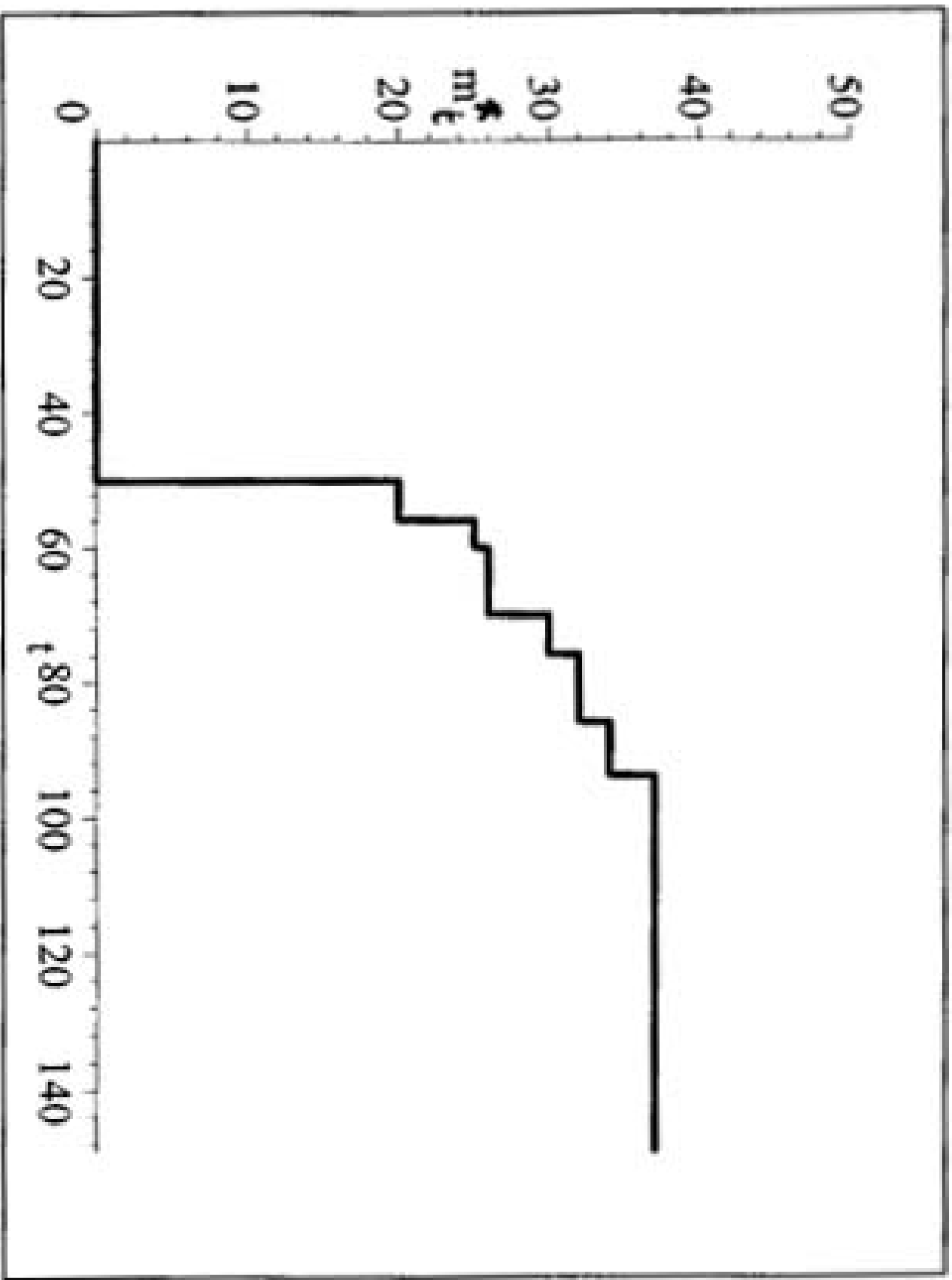


Figure 3: Dynamics of entry

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