Traders' Engagement with Markets

A Postsocial Relationship

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The Market as an Object of Attachment

CURRENT MARKET theories conceptualize the market essentially in three ways: (1) as a price-setting mechanism consistent with equilibrium conditions, where individual decision-makers already in possession of the relevant information adjust their behaviour and output to a price at which supplies are exhausted and demands are satisfied (Marshall, 1936: 270; Frances et al., 1991: 6; Becker, 1976: 8); (2) as a mode of coordination that contrasts with hierarchies and networks: while rules and authority constitute the central coordinating mechanism of hierarchies, and trust and cooperation that of networks, the mechanism operating in markets is price competition (Coase, 1937; Williamson, 1975; Thompson et al., 1991; Frances et al., 1991: 15); (3) as a form of action (exchange) embedded in social relations (Granovetter, 1985; Swedberg, 1997: 162). The first concept corresponds to the neoclassical approach in economics, the second exemplifies the transaction cost approach and the third corresponds to the new economic sociology, whose premise is that social networks based on kinship, friendship and trust influence economic transactions and sustain economic relations (Lie, 1997: 349; Carruthers and Uzzi, 2000: 489). The field as a whole adopts a disaggregate stance which emphasizes market units, their decision-making processes and relationships, and the market technique of achieving coordination. This micro-economic and 'deconstructive' epistemology has the virtue of permitting the deployment of well-developed action models and of network analyses that converge with the embeddedness assumption. It also has drawbacks, however. Economists' rational action

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models and sociologists' network analyses tend to tell us more about their particular focus (networks and utility maximization) than about actually-existing markets and the specific relationships they breed.[1] They also ignore the aggregate dimension of some markets; the ways, that is, in which information flows and trading transactions aggregate within technological environments to form complex wholes that are perceived as lifeforms in their own right by participants.

In this article, we draw attention to a particular market variant, the foreign exchange market, and one of its specific characteristics, namely that it is a global market entirely exteriorized and embodied on computer screens. With an average daily turnover of $1.5 trillion, it has also been the world's largest and fastest-growing financial market over the last decade (Bank for International Settlements, 1998: 1–3). Unlike other financial markets, the foreign exchange market is not organized mainly in centralized exchanges but derives predominantly from inter-dealer transactions among dealers situated on the trading floors of global investment banks. Traders are the major operators in international currency markets, and they are interlinked by high technology communication in real time, handing on their 'books', when accounts are not closed in the evening, from time zone to time zone. Traders in interbank currency dealing do not broker deals but trade for their bank's account via electronic broking systems and direct dealer-to-dealer contact disengaged from local settings. As collective disembodied systems generated entirely in a symbolic space, these markets epitomize contemporary high technology professional culture.

They also exemplify, we maintain, what have been called 'postsocial relationships' elsewhere (Knorr Cetina, 1997, 2001). The goal of this article is to illustrate and theorize such relationships which, we think, obtain between traders and the market on screen. Since these markets are exteriorized and concentrated on screen, traders not only participate in these markets, they relate to them as a complex 'other' with which they are strongly, even obsessively, engaged. The term 'postsocial relationships' refers to new kinds of bonds such as those constructed between humans and objects. Nonhuman objects have an increased presence and relevance in contemporary life. This presence can be glossed from the recent bodies of literature devoted to them: examples are the literature on information and communication technologies (e.g. Turkle, 1995; Heim, 1993), on the return of 'nature' and the demands of the natural environment (e.g. Sheldrake, 1991; Serres, 1990), on consumer objects (e.g. Baudrillard, 1996; Ritzer, 1999; Miller, 1994), markets (e.g. Smith, 1981, 1999; White, 1981; Baker, 1984; Abolafia, 1996) and scientific and technological things (Callon, 1986; Latour, 1988, 1993; Pickering, 1995; Rheinberger, 1997; Haraway, 1991). Many authors are aware of the fact that the influx of some of these objects and object-worlds into the social world has brought profound change to the way we work and spend our spare time. But it may also bring profound change to the structure of relationships, and call for the rethinking of sociality along lines that include objects in the concept of social relations. Such forms of binding self and other are what we call 'postsocial'; they are postsocial in that they refer to circumstances where interaction, space and even communication appear to mean something different from the accustomed understanding of these terms, though we are only beginning to analyse these meanings (an example is computer-mediated interactions in virtual space – e.g. Stone, 1996: 36ff.; Hornsby, 1998; Jones, 1998). But they are also postsocial in that they step into the place of more traditional human bonds, which become a sort of legacy environment for postsocial relations. One distinctive characteristic of contemporary life might be that perhaps for the first time in recent history it appears unclear whether, for individuals, other persons are indeed the most fascinating part of their environment – the part they are most responsive to and devote most attention to (see also Turkle, 1995). In regard to relations with objects the idea of a postsocial form rests on the intuition that individuals in some areas relate to (some) objects not only as 'doers' and 'accomplishers' of things within an agency framework but as experiencing, feeling, reflexive and remembering beings – as bearers of the sort of experiences we tend to reserve for the sphere of intersubjective relationships.

For traders, the most fascinating part of their environment is the market – with which they appear to be excessively engaged not only during working hours but also during evenings and weekends. Traders sometimes describe this intense engagement in interviews and conversations (Schwager, 1992), but this literature fails to account for it. In this article, we offer a framework for conceptualizing traders' engagement with the market as an instance of the wider phenomenon of postsocial relationships. A crucial component of this conception which we want to discuss up front is the computer 'screen', by which we also mean the dealing and information systems it embodies. We take the screen to be an appresentational device that enhances and routinizes such relationships. We have borrowed the term 'appresentation' from Husserl (1960: §49–54) to suggest that the screen brings a geographically dispersed and invisible market close to participants, rendering it interactionally or response-present. Before the introduction of the screen, interbank currency markets were network-markets: transactions were conducted in the bilateral mould via the phone or telex, and most of the traders' time was spent finding out 'where the market was' (see below). Any coordination that did come about was limited to those moments and parties involved in particular connections. The market nested in territorial space; it lay hidden in a transnational banking network of institutions that did not share the same information. The screen exteriorized, assembled and aggregated these dispersed exchange relations. After the introduction of screens, the market became fully available and identified as a separate entity in its own right for the first time – with prices, interests and the relevant information all visually indicated on screen. The market on screen is a 'whole' market and a global presence; it subdivides into different information feeds and dealing systems, but these are configured to form a global picture framed by the boundaries of the screen, which also serves as a medium for transactions.

The argument we make is that the exteriorization, assemblage and contextualization of 'the market' on screen construe the market, which at one time was dispersed among isolated and specific human connections, as an external 'life form' to which traders relate in sometimes adversarial forms of bonding while at the same time remaining able to 'enter' the life form and to become part of it. In other words, the transfer of the market onto the screen has meant that traders are now able to simultaneously position themselves inside the market in the sense of becoming players in its overlapping networks, and to relate to the market on screen as an exteriorized other, a sort of master-being that observes all transactions and includes their contextual conditions and motivations. Thus the screen is a crucial element in our discussion, a means of 'objectification' and a precondition for a relational regime. More needs to be said, however, about this relational regime. The question which lies at the core of the notion of a postsocial relationship as one that encompasses engagements with non-human others is, how can we dissociate the notion of a relationship, and indeed of sociality, somewhat from its fixation on human groups? In answering this question, we will start with the notion of the mirror image self, which accommodates such relations with non-human others; we will distinguish this notion from the I-you-me system derived from Mead, Freud and others, which places the self more strongly in the context of society than the first notion does. We claim that several developments in contemporary social transitions make it plausible to consider the mirror image conception of the self as better suited to characterizing self-feelings and self-problems in contemporary Western societies than the I-you-me system. Linking this argument to a notion of postsocial relationships, we maintain that traders' engagement with markets is based on a match between the self as a sequence of wantings and an unfolding object that provides for these wants through the lacks it displays. In this account, the 'hooking' power of the market derives not only from the embodiment on screen that we have emphasized so far, but also from the dynamic and incompleteness markets display. When considering the market as a life form, traders make explicit the temporal and unfolding character of real markets.

An important element of our account of postsocial selves and relationships is the notion of lack or wanting. We maintain that in contemporary society the lack-wanting system as an interpersonal dynamic is becoming institutionally elaborated and implemented in several contexts, among them that of trading. Studies which focus on the psychological or interactional dimensions of a phenomenon often exclude from the work discussions of macro-level factors, and vice versa, thereby maintaining a strict separation between the micro- and the macro-context. In this research, we draw upon psychological models capable, we believe, of enriching sociological concepts of relationships, while at the same time examining the institutional translation of the dynamic of the self on trading floors and locating the discussion in the framework of transformation theories concerned with changes in the social order.

Putting the Market on Screen

The domain in which we want to test the ideas about postsocial object relations in this article is that of foreign exchange markets as exemplified by interbank currency trading in large, global investment banks. The data presented in this study derive from participant observation and interviews on the trading floor of a Swiss Bank that has continuously been ranked as one of the top five or seven most profitable banks worldwide by reported foreign exchange trading revenues over recent years (*FX Week*, 1998).[2] The bank's global presence involved, in 1999, a staff of 14 500 working in 60 offices in 30 countries on 6 continents. The foreign exchange markets studied have a specific global form, which is not based on the penetration of countries or individual behaviour but instead rests on the establishment of bridgehead centres of institutional trading in the financial hubs of the three major time zones: in New York, London, Tokyo, and, since the group to which the investment bank belongs is Swiss, in Zurich. Institutional investors in these regions are linked up with the global bank through 'open' or immediate access phone lines. The bank's relevant centres and facilities are also connected through elaborate 'intranets' – internal computer linkages that extend across the globe. The intranets include electronic information and brokerage services provided exclusively for institutional customers by firms such as Reuters, Bloomberg and Telerate. Foreign exchange deals through these channels start in the order of several hundred thousand dollars per transaction, and reach up to a hundred million dollars and more. The deals are made by traders, financial managers, fund managers, central bankers and others who want to avert or hedge against adverse currency moves, who want to profit from expected currency moves, or who need currency to help them enter or exit transnational investments.

About 200 traders engaged in stock, bond and currency trading worked on the floor in the global investment bank observed. Currency traders sit at 'desks' consisting of a row of several (6–12) single desks. They have a range of technology at their disposal, including a 'voice broker' (the voice of a broker coming out of an intercom system continuously shouting prices and demanding deals) and a screen-like phone. Most conspicuous, however, are the up to five computer screens confronting each trader, displaying the market and serving to conduct trading. When traders arrive in the morning they strap themselves to their seats, figuratively speaking, they bring up their screens, and from then on their eyes will be glued to that screen, their visual regard captured by it even when they talk or shout to each other, their bodies and the screen world melting together in what appears to be a total immersion in the action in which they are taking part. The market composes itself in these produced-and-analysed displays to which traders are attached. 'It' exists only on screen, where it has a distinctive written surface or what one might call a gestural 'face-in-action'.

What does the 'it' consist of? The central feature of the displays and the centrepiece of the market for traders are the dealing prices displayed on the 'electronic broker' (EBS), a special screen and automated dealing service that sorts orders according to best bids and offers. It displays prices for currency pairs (mainly dollars against other currencies such as the Swiss franc or the euro), deals being possible at these prices. Traders frequently deal through the electronic broker, which has largely replaced the ‘voice broker’ (real life broker); the price action there is also central to the prices they make, as ‘market makers’, for callers approaching them on the ‘Reuters dealing’, another special screen (and computer network) through which they trade. On the Reuters dealing, deals are concluded in and through ‘conversations’ conducted on screen. These resemble e-mail message exchanges for which the Reuters dealing is also used in and between dealing conversations. On a further screen traders watch prices contributed by different banks worldwide; these prices are merely indicative, they express interest rather than being dealing prices as such. Traders may also watch their own current position in the market (e.g. their being long or short on particular currencies), the history of deals made over recent periods, and their overall account balances (profits and losses over relevant periods) on this or another workstation at their disposal. Finally, the screens provide headline news, economic commentary and interpretations which traders watch. An important source of information which also appears on these screens, but is closer to traders’ actual dealing in terms of the specificity, speed and currentness of the information, are internal bulletin boards on which participants input information (for a more detailed discussion of ‘screen work’, see Knorr Cetina and Bruegger (2000).

The thickly-layered screens provide the core of the market and most of the context. They come as close as one can get to delivering a stand-alone world that includes ‘everything’ (see below) for its existence and continuation: at the centre the actual dealing prices and incoming trading conversations, in a second circle the indicative prices, account information and some news (depending on the current market story), and further headlines and commentaries providing a third layer of information. As suggested before, the market was not always on screen. Screens began to ‘appresent’ (Husserl, 1960: §49–54) a dispersed and dissociated matrix of interactions and interests only in 1973, when the British news provider firm Reuters first launched the computerized foreign exchange system ‘Monitor’, which became the basis for this electronic market. By using the term ‘appresentation’, which we have explained above, we also mean to emphasize that the screens do not, in their core elements, *re*present a reality ‘out there’, but are constitutive of it. The screens appresented the market only gradually, however, first providing only indicative prices and news. Actual dealing remained extraneous to screen activities and was conducted over the phone and telex until 1981, when dealing services also developed by Reuters went live (Read, 1992: 283ff.). Yet from the beginning, ‘Monitor’ radically changed one aspect of dealing: it answered the question as to *where the market was*, i.e. what the prices of currencies were and who might be wanting to deal. Prices originally differed from place to place and had to be ascertained afresh for every deal through long and painful processes of phoning up banks and waiting for lines when going through operators for overseas calls. After the introduction of Monitor, prices suddenly became available globally to everyone connected, in a market that functioned between countries and between continents. To reiterate: before the market-on-screen, there existed dispersed networks of trading parties entertaining business relationships. After the introduction of the computerized screen quotes, 'the market' acquired a presence and profile of its own, and its own temporal and other properties.

It needs to be emphasized that we are not speaking metaphorically when we point out that the market-on-screen has a presence and profile in its own right. The screen encapsulates the market in the sense that traders must conduct the vast majority of their deals on screen, if they are to remain in the market (they may revert to the telephone as a way of finding out prices and linking up with customers in cases of prolonged computer failure). The market on screen also has its own self-assembling and -integrating features (for example, best prices world-wide are selected and displayed), its own calculating routines (for example, accounts are maintained and prices may be calculated), and self-historicizing properties (for example, price histories are displayed, and a multiplicity of other histories can be called up) – all of which turn it into a being with its own identity and profile. The electronic programs and circuits which underlie this screen world assemble and implement on one platform the previously dispersed activities of different agents; of brokers and bookkeepers, of market-makers (traders) and analysts, of researchers and news agents. In a sense, *the screen is a building site on which a whole economic and epistemological world is erected*. It is not simply a 'medium' for the transmission of other interactions.

The Market as a Deep and Liquid Object

Consider, for a moment, this epistemological world. The screens present, we said, information and knowledge: bulletin boards display traders' and analysts' worldwide confidential observations of market players' activities and any other events pertinent to dealing, while news and commentary provided by firms such as Reuters, Bloomberg, Telerate and CNN represent information. Knowledge is also implicated in the deals traders make – for example, market moves by 'smart money' (important traders and institutions capable of moving large amounts of money) tell participants where the market might be going and what is 'on its mind' (see also Smith, 1981). What is perhaps less obvious is that the prices, the centrepiece of what a market is for traders, are also 'carriers of knowledge'. Already in the 1940s, the economist Hayek argued that the economy consists of 'dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess', and that 'only the price mechanism can collect and aggregate such knowledge' (1945: 524). What Hayek pointed out, and what today's 'efficient market theory' spells out, is that information is contained in prices; for example, an interest rate change in the US may be reflected in the price of the dollar immediately, and in fact before it is officially announced, as market participants anticipate the rate change. Traders embody their own knowledge in the prices they make and they also 'read' prices, trying to derive knowledge from them.

Markets-on-screen, then, prices, news items and deals included, are knowledge constructs or epistemic objects. Why is this important? Because it points to the essential elusiveness of markets, to their incompleteness of being, which is transposed into a continuous knowledge project for participants. From a theoretical point of view, the defining characteristic of the market as an object is its lack *of 'object-ivity' and completeness of being*, its *non-identity with itself*. Markets are always in the process of being materially defined, they continually acquire new properties and change the ones they have. The speed with which this happens may be called, borrowing a notion from participants, the ontological *liquidity* of markets. This liquidity corresponds to participants' economic behaviour: a dispersed mass of participants continues to act, events continue to occur, policies take hold and have effects. Markets are objects of observation and analysis because they change continually; and while they are clearly defined in terms of prices, news, relevant economic indicators and so on at any given moment, they are ill-defined with respect to the direction they will take at the very next moment and in the less immediate future, which is what counts in speculation. They also cannot be reduced to known groups of players. Traders differentiate between 'their networks' of contacts, which they may consider as a subset of the market, and the market, which has a large anonymous component. As one trader put it, '(the market) is probably like 99.99999% anonymous'. A market's '*depth*' is what one might see as the extension of this independent collective behaviour and the reach of its implications and consequences. The following quote gives an inclusive definition of the market which brings out this depth. The territorial disputes between economics, sociology and psychology over market definitions all *melt* into a sort of '*markets are everything*' in which the focus can shift from aspect to aspect:

> KK: What is the market for you, is it the price action, or is it individual participants, or –?
>
> RG: Everything. Everything.
>
> KK: Everything? The information?
>
> RG: Everything. Everything. How loudly he's screaming, how excited he gets, who's selling, who's buying, where, which centre, what central banks are doing, what the large funds are doing, what the press is saying, what's happening to the CDU, what the Malaysian prime minister is saying, it's everything – everything all the time.

The quote comes from an experienced trader who had worked in several countries, including ones in the Far East, before coming to Zurich.

Note that his 'the market is everything' refers precisely to the manifold things that one finds on screens, the news and news commentary, the confidential information about what some major players are doing, and the prices. In the following quote, the bank's proprietary trader (a trader who is not trading for his own account but speculating for the bank) sums up this depth of the market by referring to it as a '*life form*' and '*greater being*', a being that is sometimes coherent but at other times dispersed and fragmented. The market as a 'greater being', as an empirical object of ongoing activities and effects, continually transforms itself like a bird changing direction in mid-flight, creating the unfolding identity of the market and the anticipation problem traders confront:

> LG: You know it's an invisible hand, the market is always right, it's a life form that has being in its own right. You know, in a sort of Gestalt sort of way ( ) it has form and meaning.
>
> KK: It has form and meaning which is independent of you? You can't control it, is that the point?
>
> LG: Right. Exactly, exactly!
>
> KK: Most of the time it's quite dispersed, or does it gel for you?
>
> LG: A-h, that's why I say it has life, it has life in and of itself, you know, sometimes it all comes together, and sometimes it's all just sort of, dispersed, and arbitrary, and random, and directionless and lacking cohesiveness.
>
> KK: But you see it as a third thing? Or do you mean the other person?
>
> LG: As a greater being.
>
> KK: ( )
>
> LG: No, I don't mean the other person; I mean the being as a whole. And the being is *the* foreign exchange market – and we are a sum of our parts, or it is a sum of its parts.
>
> ( )
>
> KK: I want to come back to the market, what the market is for you. Does it have a particular shape?
>
> LG: No, it changes 'shape' all the time.
>
> KK: And what is shape referring to ( ) for you?
>
> LG: Well, the shape is the price action. Like this (pointing at screen) tells me – short term trading. You know, try and buy here, sell here, buy here, sell here, buy here, sell here.

Theorizing the Self as Structure of Wantings

Having said something about the objectuality of markets and their character as incomplete things and knowledge projects, we now want to consider notions of binding that are applicable to the domain investigated. Generally speaking, sociality is about forms of grouping, binding and mutuality or reflexivity among humans. The challenge we face, with the present argument, is to dissociate the notion of a relationship, and of sociality, somewhat from its fixation on human groups. This 'loosening up' of the concept of sociality need not start from scratch. Mead, among others, discussed communication with non-human objects, and before Mead James and Cooley (McCarthy, 1984; Wiley, 1994: 32ff.). Yet Mead modelled all communication on interpersonal communication, which he also saw at the root of what makes the self a self: a reflexive process of interpersonal role taking, involving first significant, and then generalized human others. Markets, of course, are not non-human others; but what brings them nonetheless close to objects and organisms is that they are ungoverned aggregates of anonymous human behaviour and behavioural effects. What one needs to accomplish, then, is to test formulations that focus on the binding mechanism or the iterability and continuation of the tie rather than on the specific significance of human others. The guiding metaphor we have chosen draws on Lacan rather than Mead. It is that *binding (being-in-relation, mutuality) results from a match between a subject that manifests a sequence of wantings and an unfolding object that provides for these wants through the lacks it displays.* The wants are never fulfilled but are led on by a continually renewed lack of object.

We have already provided some substantiation for this formula on the object's side. An identifying characteristic of a financial market in the present context, we said, is its changing, unfolding character; its lack of completeness of being, and its non-identity with itself. The lack of completeness of being is crucial: markets have their moments of fixedness when prices 'lock', but behind such fixed facades they always prepare to mutate, and at times explode, into something else. Markets are as much defined by what they are not (but might become) as by current states; what traders encounter on screens are stand-ins for a more basic lack of object. The idea we now need to make plausible is that subjects – traders – can be characterized by a structure of wantings oriented to the lack of object of the market. Let us first consider how subjects tend to be conceived of as social selves in the sociological literature and then turn to Lacan to discuss the alternative model we propose.

In Mead's model, which is also roughly similar to thoughts of Peirce and Freud, the self is composed of an ego and an inner censor. Mead called the inner censor the 'generalized other', by which he means the internalized norms of the community or society. The 'generalized other' is closely coupled in Mead's terminology with the 'me'; the self as object and as the intrasubjective conformist past of the self. At the opposite end of the 'generalized other' and the 'me' lies what Mead calls the 'I', the spontaneous, unpredictable, disobeying side of the self. The 'I' has the power to construct reality cognitively, and by redefining situations, can break away from the 'me' and the norms of society. The 'me' and the 'generalized other' can be likened to Peirce's 'you'; Peirce held the 'you' to be a critical self that represented society and to which all thought was addressed. These notions are also roughly similar to Freud's 'super-ego', the rule-carrier which functions as a regulative principle in an internal dynamic of morality and deviance. In Mead's theory, the self first originates from such a dynamic. The internal conversations we engage in when we think are transformed versions of interpersonal communication. The self arises from role taking, from taking the perspective of the other first interpersonally, when engaged with a close caretaker, and then also intrapersonally. Wiley (1994: 34, 44), combining Mead and Peirce, elaborates this structure into what he calls the 'I-you-me' system of the self.

Now the second model. It understands the self not as a relation between the individual and society but as a structure of wantings in relation to continually renewed lacks. The notion of the self as a structure of wantings can be derived from Lacan (e.g. 1975), but it can also be linked to Baldwin and Hegel.[3] Like Freud, the psychoanalyst Lacan is concerned with what 'drives' the subject, but he derives this wanting not as Freud did from an instinctual impulse whose ultimate goal is a reduction in bodily tension, but rather from the mirror stage of a young child's development. At this stage the child becomes impressed with the wholeness of his or her image in the mirror and with the appearance of definite boundaries and control – while realizing that s/he is none of these things in actual experience. Wanting or desire is born in envy of the perfection of the image in the mirror (or of the mirroring response of the parents); the lack is permanent, since there will always be a distance between the subjective experience of a lack in our existence and the image in the mirror, or the apparent wholeness of others (e.g. Lacan and Wilden, 1968; Alford, 1991: 36).

The two conceptions may seem similar in that both emphasize the discrepancy between the I and a model-image of the self, but they are in fact quite different. From the idea of the self as composed of an inner censor results an ego subjected to feelings of guilt, experiencing rebellion and attempting to 'live up' to social expectations. In contrast, the self as a permanently reiterated lack gives rise to the desire, also permanent, to eliminate the lack. The former model would seem to result in actions that are perpetually curtailed as an ego attempts to adapt them to internalized norms; it will also result in deviant actions that transgress boundaries of which the actor is well aware. The second model yields actions spurred on by the unfulfillability of lacks, or by new wants opening up simultaneously with the (partial) fulfilment of old ones. In the first model, the actor's free fall from society is continually broken as he catches himself (or is caught by others) in compliance with social rules and traditions, and returns to their ontological security. In the second case, no society of this sort is in place any longer to provide ontological security. The 'you' is the idealized self in the mirror or the perfect other. The actor would seem to be freed of any guilt complexes; but he or she is like a wanderer perpetually in search of something, stringing together objects of satisfaction and dismantling the structure again as he or she moves on to other goals.

With the first model, we can associate primordial social relations of a kind that foster normative models, compliance and security. With the second model, we can perhaps associate postsocial relations. To be sure, the two conceptions of the self make most sense in conjunction; in Western societies, both the I-you-me system of the socialized self and the lack-wanting system of the reflexive (mirror image) self would seem to identify important features of identity. However, one may also claim that the lack-wanting system is better suited to characterizing self-feelings and self-problems in a general way in contemporary societies than the I-you-me system. To historicize the argument, one might venture the hypothesis that the lack-wanting system of self-formation is in the process of displacing and reshaping the I-you-me system. Why would this be the case? Possible reasons for such a scenario are not difficult to come by. If the lack-wanting system describes contemporary selves better than the I-you-me system, then this might result at least in part from the problems of primordial social relations, which no longer offer the kind of normative models and tight structures of social control that are needed to give rise to an inner censor and a dynamic of guilt and rebellion, compliance and transgression. The liberalization of partnership and family life which Lasch (1978), Coleman (1993), Beck and Beck-Gernsheim (1994, 1996) among others describe, the detraditionalization of education and the individualization of choice (Gross, 1994), all conspire to prevent a strong I-you-me dynamic founded on the internalization of a censor from developing. Mead, Freud and others contributing to the I-you-me model were not only proposing abstract theories of the self. Their conceptions were also rooted in existence, in particular patterns of attachment and socialization practices which are no longer dominant in contemporary society.

To conclude this section, we want to make one point about the model we have foregrounded. While the mirror idea appears plausible as a characterization of fictive external elements around which we build an ego as a life project, it may be less plausible when it is applied in the way Lacan intended it, as a description of what happens to the infant when it first recognizes itself in a real mirror. As Anderson (1983), Wiley (1994: 172) and others have stressed, no one knows what the child experiences at this stage, and what the consequences of this experience are. We need not find Lacan's account of the lack of subjectivity as rooted in the child's narcissistic relationship to him/herself persuasive in order to find the idea of a structure of wanting plausible. The latter is simply a convenient way to capture the way wants have of continually searching out new objects and of moving on to them – a convenient way, if you wish, to capture the volatility and unstoppability of desire. The idea of a structure or chain of wantings has the advantage of bringing into view a whole series of moves and their underlying dynamic rather than isolated reasons, as the traditional vocabulary of motives and intentions does. Plainly, one can make the argument that these moves, or the unstoppability of wants, is continually re-incited by the lures and images that society generates, and this is what we will do next. Accordingly, the self need not be seen as frozen into a lacking subjectivity for life at the mirror stage. It is at least as plausible to conceive of lacks in a more sociological idiom as permanently recreated by relevant institutional processes in a post-industrial society.

The Institutional Translation of the Lack-Wanting Structure

We can tie together the self as a structure of wanting and structural characteristics of contemporary Western societies by thinking of how the mirror has become exteriorized and reflected in a broad range of social and economic roles. For the analysts concerned with self-formation, the mirror is either a physical mirror or the caretakers' activity of 'back-projecting'; their activity of 'reflecting', like a mirror, the child's being by responding to it as a person and by articulating and defining the child's behaviour in relation to parental idealizations and expectations. The source of the power of the mirror lies not in the cognitive superiority or objectivity of the judgments made but in its projection of an (idealized) image that differs from the subject's self-feeling and self-experience. The mirror reveals the subject to him/herself as a piece of unfinished business composed of ever new lacks. In today's societies, this sort of projection is no longer only supplied by primary reference persons who do their work in the initial stages of life. The mirror is instituted in the media and other displays which project images and stage 'wholeness', and it is permanent: the media provide a continual flow of images of the sort Lacan attributes to the early childhood. These images are present in the shopping malls or 'cathedrals of consumption' Ritzer analyses (1999: 8ff.), and in simulations, the life-like reality processes in a purely symbolic space in which many of the insufficiencies of real life can easily be forgotten and erased (Turkle, 1995; Baudrillard, 1983). To a considerable extent, the lack-wanting dynamic has changed hands altogether and appears now to be articulated by complicated and dispersed machineries of professional image production – of industries that produce movie stars and fashion models, TV programmes and films, shopping catalogues and advertisements.

The dynamic is also articulated, we maintain, in work contexts, notably those in which the Marxist sense of 'alienation' as the worker's estrangement from skilled activity and control over the productive process (e.g. Berger et al., 1974: 24) is not or no longer archetypically represented. It is not only the media and the consumption imperative to a capitalist economy which sustain the search for self (e.g. Miller, 1994), but also certain avenues of work, for example expert contexts such as those provided by science and technology (a specific recent example is that of software and internet development companies). The assumption we make is that the self as a structure of wanting becomes articulated in work contexts when the subject has agency in relation to objects – when object relations are possible – and when objects are of the kind described, that is when they are unfolding structures of absences. In these contexts, the mirror effect results not from a physical mirror or from another person's or model's back-projections (though this may also be the case, see below), but from the (work) object that reflects back on the subject. What interests us here is the trading context, to which we now turn. These contexts use, or perhaps we should say take advantage of, the lack-wanting dynamic: they provide an organized context for giving 'lack' a precise institutional and personal meaning that directs unspecific wants towards clear goals. To make this plausible we will first say something about the traders' agency, which we think is a precondition for their engagement with the market, and then illustrate the institutional articulation of lacks in this context.

Though traders work for global investment banks they are not robbed of individual choice and the possibility for self-realizing action. If anything, their work provides for a gain rather than a loss of ego. Traders, we said, are the key operators in foreign exchange markets. Traders do not broker or mediate deals but are 'market makers', meaning they take their own positions (they buy and sell currencies), trying to gain from price developments while also offering trades to other participants, thereby providing liquidity to the market and sustaining it, if necessary against their own position (see also Baker, 1984: 779; Abolafia, 1996: 2). Though traders are set limits by their bank on losses and the volume of currencies they can trade, they are not constrained by any view the bank may adopt on the development of currencies but back their own views on the currencies they trade. Indeed, as participants confirm, it is quite common for the trading book and the bank's proprietary position to be at odds with one another (see also Goodhart, 1988: 456). The shift in agency from the firm to the trader this implies manifests itself in the readiness of banks to move their trading operations to global cities like London (Sassen, 1991; Thrift, 1996) in search of pools of competent actors who can provide this agency. A more general indication of the agency traders retain is the legal and commercial deregulation of these markets, the lack of a social censor, one might say, who restrains activities and prescribes their direction.

One articulation of this agency can be associated with the need, for these traders, to win and not just to do their job in a routine fashion. As Abolafia has emphasized, 'the trading floor is not understood as a place to satisfice, footdrag or merely survive, as in other organizational settings. It is a place to win' on the basis of making money (1998: 10). He calls 'the sheer raw enjoyment of winning' a secondary goal of excitement and mastery, a goal of 'deep play' (Geertz, 1973: 433) beyond the obvious goal of money. Traders often comment on this enjoyment and indeed on their engagement with the market when they say they '*you work, relax, eat, and literally sleep with the markets*', or when they respond as follows to questions about their reason for trading (Schwager, 1992: 60, 65ff.)

S: With trading consuming most of your day, not to mention night, is it still fun?

L: It's tremendous fun! It's fascinating as hell because it's different every day.

S: Would you still trade if there were no monetary remuneration?

L: Absolutely. Without question, I would do this for free. I'm 36 years old, and I almost feel like I have never worked. I sometimes can't believe I am making all this money to essentially play an elaborate game. On the other hand, when you look at all the money I have produced over the years, I've been vastly underpaid.

Such claims are substantiated by ethnographic observations which show traders to take lunch at their desk and to spend long hours on the floor (from approximately 7 am to 6 pm), after which they keep track of the markets through hand-held Reuters' screens or by watching the markets on CNN and other specialized channels at home. What these observations suggest is that trading affords agency not only in the sense of the practice of skills or power but in the sense of providing for the *continuation* of wantings, directed towards a market that displays itself as an *unending* series of new challenges. Let us consider these challenges, of which some flow directly from the market, while others emanate from star traders' exemplary activities and yet others are articulated by the bank on the basis of an assessment and interpretation of a market's track record in the past.

To begin with the last kind, consider that traders are not only confronted with the general requirement that they make money for the bank but are in fact given precise target values indicating how much they should earn, or in the lack-wanting idiom, how much they lack. These values are determined once a year on the basis of their previous earnings and the condition of the market. Note that these values provide traders with a benchmark in relation to which they can measure the degree to which they have succeeded with the market. Traders attempt to surpass these goals with a view to a second, more personal goal: that of obtaining an ever-higher bonus (whose size depends on their own and the bank's performance) and of accumulating personal wealth. The personal and institutional specification of 'lack' as a lack of wealth and market earnings is joined by a third specification, a lack related to 'character'. Trading room culture involves a star system according to which some traders rank far above others in terms of the money they make and the trading skills attributed to them. The star trader in Zurich trades the most important currency pair on the trading floor (dollars against Swiss francs); his daily turnover may be as high as several billion dollars, his daily 'P&L' lies between half a million profit or loss for the bank, and his budget exceeds that of others. His desk is centrally located on the floor, he is in constant communication with the chief trader who sits at a desk next to him, and he displays a number of (personalized) characteristics pertinent to his reputation. Some of these are described in the following quote from a colleague:

> X makes prices all day, he makes the market. He wants to make dollar–Swiss and not dollar–mark, since dollar–Swiss is smaller; dollar–mark is too big, no single trader could make the market. X's strength is that he can 'bull' his position through. He can tuck his heels in and sit on his balls longest. When others have long quit, he still pushes on. That is his strength.

Other traders measure themselves against the performance and behaviour of the 'stars' in their business. Star traders provide the self with a mirror and model image, even when the image is, from an observer's viewpoint, negative. As one chief trader said:

> If you have a dollar–Swiss dealer who behaves like a pig you can be sure that within two months everyone behaves like a pig, because he functions like . . . a model . . . and his behaviour affects the whole dealing room.

Traders, then, are made aware of their lacks by their star colleagues on the same trading floor and by the management which calculates what they lack in real money. This last calculation can be broken down into daily and even moment-to-moment assessments, a point that warrants separate attention. Spot traders (those exchanging currencies directly rather than dealing in longer-term instruments such as options or futures) close their accounts in the evening, at which point what they have earned or lost during this day is credited to their record. They can also inspect how they stand with every trade, and indeed tend to be fully aware of 'how they add up' at all times during trading. Direct lacks in this respect are the losses they make and their 'shortness' on a currency in speculative trading (going short means selling more of a currency than one has available in one's account in the hope of buying the currency back at a lower price later). Losses in particular are associated with fear and terror, as suggested by traders' vocabulary in the context of such losses:

> I got shafted, I got bent over, I got blown up, I got raped, I got stuffed/the guy stuffed me, I got fucked, I got hammered, I got killed.

Beyond indicating the dangerousness of some lacks, the vocabulary displays traders' emotional engagement with the market by portraying it in terms of physical assaults. Participants appear to be viscerally plugged into the screen reality, and to experience the dangers of intersubjectivity in terms of the penetration of their bodily preserves.

One interesting effect of conceiving this variety in terms of lacks is that it becomes plausible that the lacks need to be managed if the subject is to address them constructively rather than to be overwhelmed by them. This is where the chief trader comes into the picture as a kind of monitor who sees one of his main tasks as building up traders' confidence when the lacks (losses, failures to gain money, being beaten) seem overwhelming. Chief traders also attempt to manage wantings, for example by bringing traders down to earth when they feel like 'masters of the universe' after a series of lucky strokes. In that situation, chief traders attempt to puncture dealers' euphoria by putting lids on their risk-taking behaviour and trying to steer them away from high risks (Bruegger, 1999: 282). In the language of lacks, risk-taking means the calculated acceptance of possible future lacks in return for the chance to overcome a lack. Trading, of course, nearly always implies risks. But this means that in this area, future lacks are reflexively built into the very strategies of action adopted to overcome lacks – a theme that fits well with the idea of *continued* lacks that can never be fulfilled. To put this differently, traders not only confront lacks, they turn 'lacking' into a sophisticated game or practice, a domain of shifting, increasing, decreasing, predicting, hiding and delaying lack.

We now want to return to the object towards which the wants are directed, the market. Recall that the market is independent of the subject and that it displays its own lacks. Participants, we said, see the market as a life form that they cannot control, even though they are part of it, and may influence prices at times. But they are a very small part of an anonymous mass of exchange behaviour and effects. The market was said to be 99.99999% anonymous, 'because the part that I see, that I can claim I have first-hand knowledge of, is extremely small'. If a message on the bulletin board said 'Bought 50 mark–Swiss for Scandi prop. desk' the trader knew the amount and the commodity, but not the price and the Scandinavian buyer. He appreciated the information he got, but this information was nearly always incomplete: 'I get some information (from the bulletin board and the screens) but not 100% of the information'. Historically, as indicated before, putting markets on screen eliminated a major lack, that of knowing 'where the market is' (what the prices are). But the screen created new lacks of information in a faster, more liquid and global market. The literal 'wants' of the market are expressed on screen; they are the conversation-initiating price questions emanating from world-wide financial institutions. As we shall emphasize in the next section, these literal 'wants' are not simple dealing orders but messages in need of decoding in a context of market knowledge; they display their own lack of information before they become deal requests. Traders attempt to 'read' these questions with respect to the dealing intentions (buying or selling) of the calling party and with respect to their implied market-(price-)transforming significance; and in their responses to these wants they are trying to fulfil their own lacks. A second layer of lacks indicated on screens concerns the vast area of market knowledge to which traders orient in forming a 'view' of the market; the lack refers to the incompleteness of this information just illustrated.

A point to note here is that the lacks displayed on screen are specific; through the insufficiencies they display, they suggest what is lacking (in the case illustrated above, the price and the buyer of a commodity), who might have the answer and which way to look further if necessary. One aspect of the notion of a lack as used here *is* the direct and indirect signifying capacity of the visual and textual signals that indicate a lack. As a signifying object, the market structures desire, or provides for the continuation of the structure of wanting on the trader's side. On the subject's side, most lacks experienced were equally specific: examples are the annual profit goal, the possible losses in every trade and in the daily account balance, currency shortness, and bonus-related lacks as measured against last year's bonus, other traders' bonuses, possible offers by other banks and personal calculations of worth in terms of the money earned for the bank. The specificity of lacks in the present context may account for the traders' sense that control is possible and their engagement is worthwhile in the face of the equally present sense of being further challenged. This points again to the continuity of the engagement implied by the notion of relationship.

We can now conclude this section by spelling out once more what we mean when we say traders' engagement with markets corresponds to a postsocial object relationship. Binding, we said, results from the accomplishment of a match between a sequence of wantings and an unfolding object that provides for these wants through the lacks it displays. A postsocial relationship occurs when the self as a structure of wanting loops its desire through the object and back, on a continuing basis. In this movement, the self is endorsed and extended by the object (recall that traders need to prove themselves against the market, to 'show character' in it, and so on), which also provides for the continuation of the structure of wanting through its lacks. Binding here consists in the phenomenon that the subject takes over the object's wants – as a structure of wanting, the subject becomes defined by the object. Conversely, the articulation of the object, the market, is looped through the subject: as a structure of lacks, of the questions it poses and the things that 'it' needs, the market receives the kind of extension that the subject determines. In the present case, market continuation literally depends, we said, on market makers' readiness to deal, even if they stand to lose money. But the market also becomes substantively defined by the way market makers decide to engage in market continuation.

The Market as an Object That Can Be Entered by Traders

The notion of a postsocial relationship we have outlined rests on the structural affinity between a subject's wants and an unfolding object. This structural affinity fulfils one condition of a relationship, which is that it should continue over time and not be reducible to an action or a short experience. The significance of the formal correspondence we have claimed to exist lies in what this correspondence facilitates – a potential binding of a subject to an object in which the two sides feed and sustain one another. But when a binding relationship comes about, it always involves more than a formal correspondence. We have already indicated this by pointing to the semiotic dimension of trading: for the relationship to continue, the object must not only have lacks but must be *signalling* what it still lacks and the subject must be *interpreting* these signals. In this section, we want to enrich our account of traders' engagement with the market by taking a deeper look into the process of interpretation – and at traders' experiencing, feeling, remembering and responding to the market by means of 'identifying' with it, a feature we tend to reserve for the sphere of intersubjective relationships. The phenomenon we need to pay attention to, if only briefly, is that traders not only relate to markets as an external life form in its own right, they are also able to 'enter' this life form cognitively and emotionally, and to become part of it. The basis for entering the market is economic position-taking; becoming part of the market economically entails and in fact demands an attempt at cognitive understanding and the development of a feeling for the market. We have not drawn on Mead's concept of the self in this article, maintaining that a less socially conceived self may better capture self-feelings and relationships in a post-social environment. But we can turn to Mead's famous role-taking formula in search of a concept by means of which to account for traders' quest for understanding. Traders, we maintain, interpret market signals by putting themselves in the position of the market. They thereby deepen their relationship with a being they do not automatically understand and whose behaviour they try to apprehend by cognizing and visualizing its needs and dispositions.

How do traders 'enter' the market? When spot traders open their account in the morning and start buying and selling currencies, they refer to this as position-taking. 'If you're taking a position', they say, 'you are part of the market'. Only then do they develop 'an interest in it' and 'leap' into it; they switch from being outside to 'being in the market'. As one participant said, 'Until you have taken your first position home and tried to go to sleep at night and woken up with a loss staring you in the face, you'll never know if you can make it' (Abolafia, 1998). But when traders are 'in the market', they not only have a stake in its (further) development, they also start experiencing the world from the viewpoint of a market element. On this level, position-taking in trading is a rather literal enactment of the sort of role taking Mead envisaged when he talked about taking the position of a generalized or specific other. The market, of course, is a generalized, collective other. Being in the midst of it with a particular currency to sell or buy without loss while trying to make profit is what makes traders indicate to themselves the potential strategies of others:

> When I trade I try to find out where the market hurts, what is hurting it . . . how is the market positioned.
>
> ( ) If I have a long position, ( ) and everyone else is long dollars, and the dollar doesn't want to go any higher, then the dollar will go down. Because if one guy then sells dollars, the other one who buys them doesn't want to keep them, so he also sells. But he already has a lot of dollars that he also wants to sell now. Then there is an erratic, accelerating movement which can only happen when people collectively are on the wrong side. Then I try to imagine what hurts the market, and I try to feel my way into these worst-case scenarios, and to hedge my portfolio accordingly.

Thus traders take the position of the market from the vantage point of their own position in it, observing and imagining what others might be doing that creates a ‘hurting market’ (a falling and perhaps failing market). In the following quote, the chief option trader talks about position-taking in terms of his developing a ‘feeling for the market’:

> You are part of the market, you notice every small shift, you notice when the market becomes insecure, you notice when it becomes nervous, you notice the strong demand . . . You notice also that the demand is much greater than the supply. All this (amounts to a) feeling (for the market). When you develop this feeling, and not many people have it, the capacity to feel and sense the market, (etc.).
>
> When someone feels the market, then they can anticipate (it) and can act accordingly. When you are away from the market, and you lack this feeling (for it), then it’s incredibly difficult to find it again.

Position-taking, then, encompasses the full spectrum of economic, cognitive and emotional meanings. When position-taking is added to the structural affinity between subject’s (traders’) wants and an unfolding market the idea of conceiving of traders’ engagement with the market as a postsocial relationship becomes more salient. A full-blown relationship also includes elements of reciprocity. The Meadean formula which we have used to construct a more complex model of traders’ engagement with the market contains a reflexive loop. In person-to-person interactions, the self takes the perspective of the other but the other also takes the position of the self, looking at the self’s expectations toward him/her and responding to the self accordingly. Mead thought that this sort of reflexivity also obtains in some measure when we communicate with physical things which are capable of responding to our propositions:

> An engineer who is constructing a bridge is talking to nature in the same sense that we talk to an engineer. There are stresses and strains there which he meets, and nature comes back with other responses that have to be met in another way. In his thinking he is taking the attitude of physical things. He is talking to nature and nature is replying to him. Nature is intelligent in the sense that there are certain responses of nature toward our action which we can present and which we can reply to, and which become different when we have replied. It is a change we can then answer to, and we finally reach a point at which we can co-operate with nature. (cited in Beckert, 2000: 21)

This sort of reciprocity can also be found in the market, where it includes several tangled components. Other market participants may consider a trader’s position in the market when they have any indication of it, as they at times do, from electronic messages, observations or direct involvement in the deals being made – and they will respond accordingly. Other traders may also simply imagine market moves by particular participants on the basis of prior histories of involvement, special information, etc., and, third, they may imagine what the market is doing as a collective entity, acting upon the hypothesis of a market consensus or of mass behaviour that includes our original trader. The response of these 'others' will not necessarily be communicated directly to our trader but will more likely show on screen, where it becomes part of the market-on-screen as an entity in its own right. Thus, though personal reactions to market events in the sense of other traders' taking the position of the market do play a role in bringing about reciprocity, market interaction does not revert to interpersonal interaction but retains the quality of a trader-to-screen/market interaction. To some degree, programs implementing the market-on-screen also watch a trader's moves, and may react to it in ways that affect the screen reality (for example, they can implement stop losses, that is sales of a currency when the price drops below a pre-specified limit). As these scenarios indicate, the reciprocity between trader and market-on-screen is there but it is somewhat skewed, since traders and the market as an object on screen do not do the same thing – for example, traders engage in position-taking, whereas a technologically created market aggregates reactions and implements programs. Nonetheless, it is plain that the sort of mutuality we have spelled out is constitutive of the market process. In fact, accomplished economists and market participants (e.g. Soros, 1994) have pointed out forms of market reflexivity that rely on this mutuality.

To conclude this section and the article, we should note that we can see participants' envisaging the attitude of the 'other' as a second way to help us conceptualize traders' engagement with the market as not only work, or instrumental action, but as a postsocial relationship and form of sociality with objects. The Meadean formula of position-taking specifies *how* a chain of (subjective) wantings becomes related to an object's (the market's) lacks and thus supplements our initial conceptualization of binding. It also details the epistemic and emotional takeover that one can watch on a trading floor: of traders orienting their mind and a significant fraction of their sensory equipment to the life-form of the market – to its glaring and eye-catching presence on screens, its continual vocal demands and its rousing, sometimes galvanizing, effects on other traders. 'The movements of the trading floor respond to the movements of the market as if roped together', as a former trader put it (Lewis, 1989: 59). Relational thinking of the Lacanian kind may help understand the primordial dimensions of this connectedness. The institutional translation we have given of lacks and wantings is sociologically important: it sustains a view of contemporary society as one in which particular models of the self become institutionally articulated and in which major transitions in relational engagements are taking place. The shift from social to postsocial relations we have posited in this article is not the only way of envisaging these transitions, but it is one that is especially apposite to our understanding of sociality. This view of things does not stand in contrast or contradiction to accounts of current transitions as shifts from industrial to post-industrial life, from nation states to global societies or from modernity to post-modernity. What it stands in contrast to, perhaps, are concepts of the social that have been worked out in the past but may be losing some of the salience they once had. Social relationships and environments as we knew them may become legacy environments – last in a line of succession of cultural forms before contemporary changes, bequeathing to us notions of a human world and solidarity which we need to refashion, or at least to readjust, to new environments.

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Notes

1. Several analysts have pointed out the phenomenological diversity of markets and called for a ‘multiple market’ approach (Zelizer, 1988; see also Lie, 1997: 354; Smith, 2000; Mirowski, 2001: ch. 8).

2. By September 1999, 81 interviews of approximately one and a half hours with traders, salespeople and analysts on trading floors had been conducted and transcribed. The study is also based on one year of continuous participant observation and, in addition, 10 shorter periods ranging from several days to a week since 1997 and still ongoing. The study is embedded in a larger effort also involving the investigation of the history of financial markets (Preda, 2000), analysts in large banks' research departments (see Mars, 1998; Knorr Cetina and Preda, 2001), the analysis of financial documents (see Knorr Cetina, 2001) and the investigation of what we call ‘global microstructures’ (see Knorr Cetina and Bruegger, 2000).

3. Baldwin and Hegel's notions of desire are summarized by Wiley, 1994: 33. See also Hegel, 1979(1807) and Baldwin, 1973(1899).

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