

Entrenched patterns of hot cognition may explain stubborn attributes of the economic landscape

Dragos Simandan

Geography Department, Brock University, St. Catharines, ON, L2S 3A1, Canada,

simandan@brocku.ca

ABSTRACT Some of the most stubborn attributes of the economic landscape, especially those that pertain to gender inequality in the workplace, in the labour market, and in entrepreneurial ventures, may be traced back to a fundamental cause that underpins a large part of the variance of everyday microeconomic behavior: because of genetic and developmental processes, people become entrapped into stable patterns of affective reasoning (or hot cognition), which generate profound consequences for their behavioral styles as economic agents. In this paper I upgrade earlier ideas from psychoanalysis, by bringing them into dialogue with recent findings from affective neuroscience and neuroeconomics, to propose a typology of patterns of affective reasoning and to suggest ways in which they may begin to explain widely recognized inequalities in economic performance.

Key words: hot cognition, neuroeconomics, gendered economic geography

Introduction: hot cognition and the production of economic space

We need to enlarge our understanding of the reasoning processes of economic agents if we are to have a fair chance at explaining inequality in the economic landscape. More specifically, we need to grasp the fact that much of economic cognition is hot cognition,

or, in other words, reasoning underwritten by emotion (Bernheim, 2009). As early as 2004, geographer Allen Scott insisted that “a new cognitive map of capitalist society as a whole is urgently needed” (Scott, 2004: 479). He targeted his message at both economists and geographers, because he sensed that both of these groups operate with a baggage of outdated concepts and theories. This paper builds on his work, while at the same time criticising it with the help of recent evidence from neuroscience and neuroeconomics, and of older insights from psychoanalysis. Specifically, I take aim at the use of the phrase “cognitive map”, because it may mislead us into (a) thinking cognition as separate from affectivity, and (b) thinking pure cognitive processes as the only stuff from psychology that economists and geographers really need to know.

The recent advances in neuroscience and neuroeconomics make it clear that the neat separation of cognition from affect is false and that the economists’ assumption that cognition is more important than affect is equally false. As Camerer et al (2005:13) put it, “cognition by itself cannot produce action; to influence behavior, the cognitive system must operate via the affective system” and it just so happens that “the principles that guide the affective system... [are] so much at variance with the standard economic account of behavior” (2005: 22). The main challenge for the contemporary theoretical models in economics and geography comes from the recent empirical data that converge on the idea that “most affect probably operates below the threshold of conscious awareness” (Camerer et al, 2005: 13). This observation attacks the very core of economic and geographical research, because, firstly, “learning processes are likely to be a splice of cognitive and affective processes” (Camerer et al, 2005: 58; see also Bernheim, 2009), and secondly, the unconscious operation of the affective system may be the primary

factor that explains the limited predictive ability of economic models. It is useful at this point to remember that, as recently as 2003, Bathelt and Glückler undertook a conceptual investigation of the foundations of economic geography to conclude that there are “four ions as the basis for analysis in economic geography: organization, evolution, innovation, and interaction” (2003: 117). The latter ion – interaction – is the very direct expression of the public life of unconscious affect (Kaës, 2000) and constitutes the key explanatory variable for understanding “the tensions between *personal interests*, *project goals*, and the *firm's aims* that are induced by...personal knowledge networks” (Grabher & Ibert, 2006: 251; emphasis in original). The most pressing problem for economic geography and economics emerges from their theoretical and methodological impotence on the matter of affect, and more specifically, on the matter of seizing the role played by affect in making economic agents so different from one another. In Camerer et al.’s words (2005: 62):

Economic models do not provide a satisfying theory of how individuals differ. As laymen, we characterise other people as impulsive or deliberate, stable or neurotic, decisive or indecisive, mature or immature, foolish or wise, depressed or optimistic, scatterbrained or compulsively organised...Comparative economic development, entrepreneurial initiative and innovation, business cycle sensitivity, and other important macroeconomic behaviors are probably sensitive to the distribution of these and other psychological ‘assets’.

To be sure, I do not pretend to be the first who notices this fundamental weakness. Other geographers have been keenly aware of our failure to pay attention to affect and to individual differences. To give just one example, Linda McDowell raised the same problem with respect to the main dimension on which people differ, namely gender. She

concluded her reflection on this area by noticing that "...the rapid growth of a literature about gender and organizations, largely ignored by geographers, might profitably be brought into juxtaposition with geographical analyses of economic restructuring" (McDowell, 2001: 227). More recently, following her own suggestion, she undertook extensive empirical research on the gender variable in economic activity and found that "...economic rationality is challenged by research that documents parents' (especially mothers') moral commitments to their care for their dependants personally or through other forms of family-based provision" (McDowell, 2005: 365).

Yet, this paper will show that the gross separation of humans into males and females blinds us to more significant individual differences that cross-cut gender divisions and that speak volumes to those with an interest in economic life. By combining the psychoanalytical theories of Karen Horney (1935/2000, 1945, 1950, 1967, 1952a/2000, 1952b/2000) and Fritz Riemann (2005), I will offer a five-fold affective map of human natures that has the potential to enlighten our understanding of labour relations, human performance, consumer behaviour, and economic space. The use of psychoanalytical theory is necessary at this point in the evolution of economic geography and economics, not only because it is the field of human endeavor with the deepest knowledge of the logic of the unconscious affective system (Kandel, 2006; cf. Suhler & Churchland, 2009), but also because very recently "...research has begun to demonstrate neurophysiological correlates of several psychoanalytic concepts, including the defenses, transference, resistance, object relations and drives" (Luborski & Barrett, 2006: 15).

Of the many possible roads into psychoanalytical research, I chose Karen Horney's, not only because I read everything she wrote and attempted a self-analysis using her

guidelines (Horney, 1942), but also because her typology of human natures strikes me as explicitly geographical. To eliminate confusions, it is not the kind of rudimentary geography that sees space as a container and struggles to map its content, but the more subtle kind of geography that has been proposed by cultural economic geographers (e.g. Thrift, 2006). Their focus on how economic agents *produce* space perfectly matches Horney's typology. Thus, she separates individuals who move against people (obsessed with the appeal of mastery), individuals who move towards people (obsessed with the appeal of love), and individuals who move away from people (obsessed with the appeal of freedom). Each type produces distinct spatial and economic effects, and, in a profound sense, becomes the victim of those very effects. However, I found Horney's typology incomplete and turned to the work of Fritz Riemann (2005) to add two additional types of particular significance in these times of rapid economic change (Friedman, 2006, Toffler & Toffler, 2006, Thrift, 2006): one of them is "moving against and/or away from change" (individuals obsessed with the appeal of stagnation), the other is "moving towards change" (individuals obsessed with the appeal of novelty). The complementary criteria of Horneyian (against, towards, and away from *people*) and Riemannian (towards and against/away from *change*) typologies thus yield five broad patterns of affective reasoning that underwrite the economic landscape of capitalist society. To unpack in more detail their relevance for our understanding of affect and individual differences in economic geography, I allot a distinct section for each of them, and then use the concluding part of the paper to briefly reflect on the broader implications of my work for economic and geographical scholarship.

The assertive pattern

Psychoanalysts (Hendrik, 1943), conventional psychologists (White, 1959), evolutionary theorists (Cosmides & Tooby, 2006), and philosophers of neuroscience (Suhler & Churchland, 2009) converge in their observation that all humans have been endowed with the capacity to derive pleasure from mastering their environments, i.e. from striving in order to achieve goals. But people differ in the amount of joy they experience from controlling their environments, lives, or peers. Karen Horney learned through many years of clinical experience with disturbed individuals that some of them deal with their inner conflicts by organising their affective life primarily around the appeal of mastery. In her own words, (Horney, 1950: 214):

Mastery with regard to others entails the need to excel and be superior in some way. He tends to manipulate or dominate others and to make them dependent upon him...Whether he is out for adoration, respect, or recognition, he is concerned with their subordinating themselves to him and looking up to him. He abhors the idea of being compliant, appeasing, or dependent.

The important point for economic geographers comes from the fact that these private attitudes shape economic space, even though the individual who espouses them might be totally unaware of being enslaved by them. Horney goes on to explain that (Horney, 1950: 191-192):

...th[is] individual prevailingly identifies himself with his glorified self...as one patient put it, 'I exist only as a superior being'. The feeling of superiority that goes with this solution is not necessarily conscious but –whether conscious or not – largely determines behavior, strivings, and attitudes towards life in general. The appeal of life lies in its mastery. It chiefly entails his determination, conscious or unconscious, to overcome every obstacle – in or outside himself – and the belief that he should be able and in fact *is* able, to do so. He should be able to master the

adversities of fate, the difficulties of a situation, the intricacies of intellectual problems, the resistances of other people, conflicts in himself. The reverse side of the necessity for mastery is his dread of anything connoting helplessness; this is the most poignant dread he has.

It becomes apparent by now that the appeal of mastery is closely linked with the typical social expectations placed on men. They have to be independent, tough, self-sufficient, ambitious, bold, straightforward, and masters of their fate and of their families. The very name of this category of people – moving *against* people – unravels the close dependency between one's level of aggressive and antisocial tendencies and one's likelihood of choosing this affective attitude towards one's surroundings. In turn, one's level of aggression and antisociality depends on genetic factors (Archer & Côté, 2005; Pérusse & Gendreau, 2005) and on hormonal factors (Van Goozen, 2005), but both gene expression and hormonal expression emerge as a function of the interaction between one's biology and one's socialisation. Men tend to have higher levels of testosterone and lower levels of cortisol than women and this twin tendency explains their increased aggression and antisociality (Van Goozen, 2005). In the terminology of personality theorists, men tend to score lower on agreeableness and higher on the "thinking" dimension of the Myers-Brigg type indicator. These scores indicate the very same things described by Horney under the heading "moving against people". Individuals belonging to this category have a pessimistic view of human nature and, because of this negativistic worldview, they tend to be uncooperative, selfish, suspicious, uninterested in others' well-being, unfriendly, unwilling to be totally honest, incompilant, arrogant, overconfident, and merciless. From an economic point of view this negativistic configuration of affect helps men get ahead and achieve status and might well explain the persistent wage differentials between the

sexes (Kanazawa, 2005). The deeper reason why men would be more prone to ruthless self-promotion and weaker on generosity and caring for others is to be found in evolutionary biology (Cosmides & Tooby, 2006). The ultimate unconscious goal of men is to spread their genes as widely as possible. The achievement of higher status is crucial for succeeding at this task, because higher status men are much more likely to find women available for mating. From the women's point of view, a man of higher status is preferable as a mate because he is likely to have better genes and more resources to provide for child-rearing. It is the fact that "humans did not evolve to be happy, but to survive and reproduce" (Camerer et al, 2005: 24) that explains the wide spread among males of the "moving against people" solution (Horney, 1950), and the attendant favouring of career over family life, of ruthlessness over empathy, and of competition over cooperation.

The women's social liberation in the last decades has challenged the deeply held assumptions about gender roles (McDowell, 2001, 2005), but the underlying biological differences between the sexes need to be considered in the explanation of uneven performance and pay in the workplace (Kanazawa, 2005). Of equal significance for economic geographers is the fact that the gap between the rich and the poor might be the result of different affective types. It might well be the case that the poor are people who bear the economic penalty of being too nice and too concerned for the lives of others, while the rich reap the economic rewards of entering the workplace with a ruthless, hypercompetitive, and selfish mindset.

Mickey Kaus (in Frank & Cook, 1995: 229-230; emphasis added) notes that:

...the rich and the semi-rich increasingly seem to want to live a life apart [from the poor], in part because they are increasingly terrified of the poor, in part because they increasingly seem to feel

that they deserve such a life, that *they are in some sense superior to those with less*. An especially precious type of equality – equality not of money but in the way we treat each other and our lives – seems to be disappearing.

His highlighting of the implicit belief of the rich of being superior to the poor sends us back at the major diagnostic criterion used by Karen Horney to identify the “moving against people” types: their need to be above their surroundings, to stand out no matter what. In the next section, I will build upon this observation to render more salient the ways in which differences in one’s type of unconscious affective systems can explain the logic of economic inequality.

The submissive pattern

The second affective type identified by Horney (1950, 1967) is the diametrical opposite of the “moving against people” type. It is only by studying them together that we become able to seize their profound implications on the structure of the economic landscape. If the “moving against people” attitude emerges through the overvaluation of mastery, “moving towards people” results from the overvaluation of love. It is the unique merit of Karen Horney to have gone against the grain of both the lay and the academic wisdom of the time, to show how the overvaluation of the emotion of love has a negative side as well. In particular, she produced penetrating analyses of the tendency of women to overvalue love, and to devalue professional ambition, while at the same time warned against an all too convenient biological explanation of these tendencies. Thus, she aptly observed that “if a tree, because of storms, too little sun, or too poor soil becomes warped

and crooked, you would not call this its essential nature” (Horney, 1952a/2000: 297) and insisted that (Horney, 1935/2000: 123):

Once and for all, we should stop bothering about what is feminine and what is not...Standards of masculinity and femininity are artificial standards...Differences between the two sexes certainly exist, but we shall never be able to discover what they are until we have first developed our potentialities as human beings. Paradoxically as it may sound, we shall find out about these differences only if we forget about them.

Ours is an age in which the progress of biology has emboldened even the president of Harvard to escape the moral task of creating gender equality, by recourse to deterministic explanations.

Seven decades after Horney wrote these lines, we can recognize, in hindsight, the wisdom of her approach to the question of gender differences, as well as the ongoing relevance of her admonitions. With these caveats in mind, we can now move on to a consideration of the economic implications of the appeal of love. People who overvalue this domain of life tend to score high on agreeableness and on the “feeling” dimension of the Myers-Brigg Type Indicator. Women tend to score higher on these dimensions, a fact which allows us to think of the “moving towards people” type as traditionally “feminine”. These individuals endorse a positive view of human nature and believe that people are trustworthy, honest, and decent. They are more concerned with fitting in than with standing out, with getting along with others than with getting ahead of them, with cooperation than with competition, and with being helpful to others than with helping themselves. They are modest, empathic, friendly, compassionate, and tender-minded. These qualities help them gain popularity, but prevent them from self-assertion and from

effective competing against people driven by the appeal of mastery. In Horney's perceptive words (1950: 215-216; emphasis in original), the moving towards people type:

...must *not* feel consciously superior to others or display any such feelings in his behavior. On the contrary, he tends to subordinate himself to others, to be dependent upon them, to appease them...Far from abhorring [helplessness and suffering], he rather cultivates and unwittingly exaggerates them...What he longs for is help, protection, and surrendering love...He lives with a diffuse sense of failure...and hence tends to feel guilty, inferior, or contemptible...Pride, no matter what it concerns, is put under a strict and extensive taboo...He is *his subdued self*; he is the stowaway without any rights. In accordance with this attitude he also tends to suppress in himself anything that connotes ambition, vindictiveness, triumph, seeking his own advantage. In short he has solved his inner conflict by suppressing all expansive attitudes and drives and making self-abnegating trends predominant.

When one contrasts the individuals driven by the appeal of mastery with those driven by the appeal of love, one is reminded of Nietzsche's (1887/1967) *On the genealogy of morals*, and of his separation between the morality of masters and slave morality. His despise of the latter is at odds with the contemporary discourses in feminist and economic geography, which generally take the side of the underdog (Harvey, 2003, McDowell, 2005). It might be human nature to admire those who win, but to truly sympathise with the losers. The question that begs an urgent answer is whether people driven by the appeal of love will always be the losers of the economic game. At first glance, their self-effacing and self-sabotaging tendencies can tempt us to infer that indeed they seem perfectly made to lose. But times are changing, and so do the economic practices that go with them (Thrift, 2006). The decades ahead will put a premium on team spirit and the ability to cooperate, on emotional intelligence and empathy, as well as on the quality of

face-to-face contact. As Storper & Venables (2004: 351) observed, “face-to-face contact has four main features: it is an efficient communication technology; it can help solve incentive problems; it can facilitate socialization and learning; and it provides psychological motivation”. What they did not observe is that some people (those who “move towards people”) are much more motivated by face-to-face contact and have the natural ability to create high quality face-to-face contact (Horney, 1967). This fact will have profound implications for the gendering of economic activity, because women and gay men are more likely to have the qualities required for the new kinds of leadership and management practices discussed in the business literature (Toffler & Toffler, 2006). To give just an example, Snyder (2006) undertook a five-year research project involving two thousand organisations and more than three thousand professionals, to find that gay male executives and managers have a style of leadership that increases workplace morale and job satisfaction with 25-30%. The seven qualities he identifies as responsible for this “G quotient” in leadership – adaptability, creativity, *collaboration*, communication, *connectivity*, intuition, and *inclusion* – clearly support my optimism about the changing economic fate of those who move towards people.

The pattern of disengagement

The third major type of affective organisation – moving *away* from people – is the most radical, because it challenges our fundamental assumption that people are social animals. If we think of the previous two types, we readily notice that both involve active participation in the social life, albeit by different strategies. The Darwinian struggle to spread our genes involves a careful balancing of the need to fit in (to be accepted by the

others) with the need to stand out (to be more attractive to others). If the masculine solution of moving against people emphasizes the need to stand out, and the feminine solution of moving towards people insists on the need to fit in, the third existential solution – moving away from people – refuses to play the social game and thus becomes maladaptive from the perspective of evolutionary biology (Cosmides & Tooby, 2006).

The individuals who embrace this solution (or rather are embraced by it) want neither to master their peers, nor to be loved by them. They simply want to be left alone. Their two neurotic claims are that they shouldn't be bothered and that life should be easy. They value freedom above anything else, but upon closer investigation it becomes clear that it is not the kind of constructive, life-affirming freedom, that allows one to flourish. Instead (Horney, 1950: 274):

We learn from them that freedom means to him doing what he likes. The analyst observes here an obvious flaw. Since the patient has done his best to freeze his wishes, he simply does not know what he wants. And as a result he often does nothing, or nothing that amounts to anything. This, however, does not disturb him because he seems to see freedom primarily in terms of no interference by others –whether people or institutions...Granted that his idea of freedom seems again to be a negative one –freedom *from* and not freedom *for* – it does have an appeal for him which (to this degree) is absent in the other solutions.

Horney goes on to describe with piercing insight the constellation of beliefs and habits that constitutes this peculiar type of affective organisation, and from her observations we can easily infer how this type of individuals affect the economic landscape. We found that “he is proud of his detachment, his ‘stoicism’, his self-sufficiency, his independence, his dislike of coercion, his being above competition” (Horney, 1950: 271) and that “he feels entitled having others not intrude upon his privacy, to having them not expect

anything of him nor bother him, to be exempt from having to make a living and from responsibilities” (Horney, 1950: 271). Even more significant for the labour geography of capitalist society appears the fact that “...intimately connected with [his] nonparticipation, is *the absence of any serious striving for achievement and the aversion to effort*” (Horney, 1950: 261; emphasis in original).

From an economic perspective, this type of individuals is the nightmare of any capitalist business, because they yield little, either as employees (they resent working hard) or as customers (they curtail their desires to avoid becoming dependent on things beyond their control). At work, they survive through passive aggressive strategies. They know that they have to make a living, but they vindicate their enslavement to the ruthless logic of economic necessity by subtly sabotaging their own and others’ work performance. They aim to get by with the minimum amount of effort and invest all their creativity towards the achievement of this secretly cherished goal. More often, as dramatically shown in the case studies included in *The Hamlet Syndrome. Overthinkers who underachieve* (Miller & Goldblatt, 1989), they settle for jobs below their potential if those jobs promise to provide a greater amount of freedom. To the extent that in the capitalist system higher pay normally entails higher responsibility, and higher responsibility normally entails more social obligations (i.e. less freedom), people who overvalue negative freedom (freedom from social ties) will be encountered primarily in jobs below their level of ability. In terms of consequentialist ethics, the greatest good for the greatest number would be achieved if society and the economic system placed people in jobs commensurate with their level of ability. The failure of the economic system to achieve this end in the case of people who overvalue freedom raises questions about our

unjustified pride in the efficiency of economic rationality. Why is it that these people withdraw from social life? I detected in the literature on the subject three types of explanations, one biological (Laplanche, 1997), the second existential (Horney, 1952b/2000), and the third political (Miller & Goldblatt, 1989). The *biological* explanation builds on Freud's idea that human nature is the outcome of the ongoing struggle between Eros (the life drive) and Thanatos (the death drive). In some individuals, the death drive prevails and this unfortunate fact accounts for their masochistic tendencies and for their relentless bias towards the dark side of life. Individuals who move away from people actually move away from living. Their overvaluation of serenity and peace of mind has a distinctively morbid element to it, to the extent that life involves ups and downs, struggles, and turmoil. The biological explanation launched by Freud (1940) remains powerful in light of both contemporary French psychoanalysis (Laplanche, 1997, Kaës, 2000) and affective neuroscience (Davidson, 2004). The latter field of enquiry has recently introduced the distinction between the BAS (i.e. behavioral activation system; positive affect) and the BIS (i.e. behavioral inhibition system; negative affect) and the observation that people happy above average have an overactive BAS (Freud's life drive), while unhappy individuals have an overactive BIS (Freud's death drive). The *existential* explanation resides in the clinical observation that "blind destructiveness may ensue when a person becomes aware of the futility of life" (Horney, 1952b/2000: 286). We live in disenchanted times, when God is known to be dead, and morality is known to be relative, and this disenchantment might take away the fuel that the "moving away from people" type would have needed to strive and feel that life is worth living. Finally, the *political* explanation (Miller &

Goldblatt, 1989) suggests that this type of people gave up on active social and economic participation because they have become embittered and disgusted by the viciousness of the capitalist hydra and by the mindless subscription of the masses to the imperatives of the American dream.

The conservative pattern

If Karen Horney focused on the affective geography generated by moving against, towards, or away from people, Fritz Riemann (2005) noticed that people differ markedly on the kind of affective geography produced in response to change. At one end of the spectrum are those who fear change and engage in habits that move them against or away from change (the obsessional personalities or the anal characters), while at the other end of the spectrum one meets the “hystericals”, people who love novelty and move towards change.

The economic geography created by those who move against or away from change is striking in three respects. First of all, these individuals dominate the state apparatuses so dreaded by dynamic businesses because of their inefficiency and conservatism and they use their legal power to “terrorise” (consciously or not) the rest of us:

We find obsessionals in the jobs which confer power, and which offer, at the very same time, the opportunity to live legally their own aggression, in the name of order, discipline, law, authority, etc. Therefore we are not surprised that many politicians belong, more or less, to this structural type, as well as the military, policemen, judges, priests, teachers, and state bureaucrats. (Riemann, 2005: 145-146)

Secondly, people who dislike change embrace the work virtues that are the very opposite of those associated with entrepreneurship and creativity. They tend to become the experts that see all the trees, but not necessarily the forest. In Riemann's words (2005: 175):

Specific to their structure, people with obsessional components in their personality tend to choose professions that bring them power, as well as professions which require exactity, thoroughness, precision, attention to detail, responsibility, and foresight, and which favor perseverance, perfectionism, and patience over initiative, elasticity, and creative freedom.

Thirdly, these individuals are ill suited to cope with the rapid acceleration of the pace of scientific, technological, economic, and social change brought about by Friedman's (2006) "flat world" or Toffler & Toffler's (2006) "third wave" of social progress. In a very significant way, globalisation appears to be a major risk factor for the mental health of those who dislike change, because, as Riemann explains (2005: 173):

Obsessional personalities fall into crises especially when their so rigidly held principles, opinions, and theories are confronted with new developments, with new knowledge and progress, which threaten their previous orientations and force them to abandon their system.

If we try to delineate more precisely which economic agents are at risk developing affective systems that react negatively to change, we encounter an array of hypotheses. In his landmark study *Character and anal erotism*, Freud (1908/1991) hypothesised that people with obsessional tendencies are the outcome of a too rigid toilet training in their second year of life (the anal stage). While his hypothesis does not find empirical support in contemporary research (see Harris, 2006), his work remains important for having captured the essential fact that three characteristics – orderliness, parsimony (avarice), and stubbornness – always tend to cluster together in the same person to constitute the

backbone of rigid, obsessional characters. Stubbornness or the tendency to cling to one's beliefs and one's entrenched way of doing things is particularly relevant in the explanation of why these people reject change. A too stubborn individual has a very high level of adhesiveness of her libido (Freud, 1940): once she invests "love" (i.e. libido, attention, interest) into some activity or theory, she finds it extremely difficult to withdraw that affective investment and thus to change her way of being. She might stick with her mechanical typing machine, although there are computers around, she might tenaciously resist the idea of biological co-determinism, although there is now evidence for it (Harris, 2006), and so on and so forth. From his clinical experience, Freud observed that it is futile to attempt therapy with people past their middle age, because the adhesiveness of the libido increases with age (hence the saying "You can't teach an old dog new tricks"). This clinical evidence provides the theoretical background to suggest that age is a risk factor for the development of an affective system that moves against or away from change. If one corroborates psychoanalytical data with research on the decline of intelligence with age (Noll & Horn, 1998, Salthouse, 2009), one cannot not notice that Freud's elusive notion of "adhesiveness of the libido" might be one and the same thing with fluid intelligence. The latter reaches its peak at around 16-26 years, and declines from one's mid 20ies at a rate of about 4 IQ points/decade. To put the pieces of the puzzle together, fluid intelligence is defined as the ability to deal with novelty (Noll & Horn, 1998, Salthouse, 2009). It may be the case that older people's increased fear and rejection of change is an adaptive solution to the fact that they lost some of their initial ability to deal with the novelty brought about by change. They hate change, because they cannot cope with its cognitive demands any more. This line of thinking allows us to infer

that not only old people, but all those with lower intellectual abilities are more likely to fear change and stick rigidly to their routines and beliefs. Indeed, this is precisely what Moutafi et al (2004; cf. Luciano et al, 2006) found in a sample with a mean age of 38: there was a moderate negative correlation of -0.26 between one's level of fluid intelligence and one's level of conscientiousness (and the "obsessionals" described by Riemann always score very high on this dimension of personality).

The fact that a significant part of the population, including older people and people of lesser intelligence, are likely to react negatively to the radical novelty induced by the economic logic of the "flat world" is fundamental for tracing the economic geography of winners and losers in the decades to come. This point will become much clearer in the next section, where we will look at those individuals who love and thrive on novelty and rapid change.

The pattern of versatility

In the August 2006 issue of *Neuron*, neuroscientists Bunzeck and Düzel published the results of their research of the major "novelty center" of the brain, named the substantia nigra/ventral tegmental area (SN/VTA), and concluded that there is sufficient data to claim the existence of a functional hippocampal-SN/VTA loop that is driven by novelty and that may enhance learning in the context of novelty. This finding corroborates Fritz Riemann's observation that there is a type of individuals ("the hystericals") who find particularly gratifying the idea of change and novelty. The economic geography of the individual who moves towards change is the diametrical opposite of that of the obsessional. In Riemann's words (2005: 228):

Her strength resides in her impulsive mobilisation and in the ability to make things happen, and less in persistence and the tenacious achievement of goals. But it is precisely her impatience, curiosity, and freedom from the past that make her spot and grab many opportunities which other types of people fail to see...Thus, independent and bold, she can see life as an adventure full of colour.

The unique competitive economic advantage resulting from the fact that “they can adapt, chameleonically, to each new situation” (Riemann, 2005: 187) is reinforced by hystericals’ general propensity for creativity and experimentation, as well as by their delight in acting as social butterflies. As Riemann explains (2005: 225-226):

They are suitable for all jobs which require personality, on the spot, elastical reactions, versatility, pleasure of contact, and capacity for adaptation. They found convenient all jobs which...fulfill their need for human contact, their desire to ‘have an audience’. They are represented by prolific salesmen...They feel at home wherever it is about charm, physical impression, ability, spontaneity, improvisation, victories or sudden assaults. The hysterical is attracted by all jobs which make vague promises about life in the ‘high world’ or that put him in contact with this world; he likes jobs such as photomodelling, management, as well as the jewelry, beauty and hotel industries...Their performance depends a lot on the people for whom they work. If talented, they can artistically sublimate their gifts, their strong capacity to desire and to imagine, their expressive capacity and pleasure of expression, especially into acting and dancing.

Ours are volatile times, and the hystericals – volatile people – thrive in this kind of economic medium. If the elderly and the less intelligent tend to move against or away from change, the young and the bright are likely to seek it. But there is a deeper fundamental that underwrites these propensities. Boniwell & Zimbardo (2004) found that different people have different time perspectives and that one’s time perspective changes

over the lifespan. The distinctive characteristic of people who move towards change resides in the fact that their perspective is focused and biased towards the future. They care less about memories, traditions, and history, and more about future milestones they aim to reach, future improvements, and future adventures. As people age and realize that they have more years behind, than years ahead, their time perspective slowly shifts from dreaming the future to remembering the good old days. It is important to understand at this point that one's temporal focus or "...attention...is largely controlled by automatic processes, and attention in turn determines what information we absorb" (Camerer et al, 2005: 39). The very fact that, unconsciously, one focuses on the past undermines one's ability to welcome and prepare for the future. We know from Freud that individuals have a limited amount of libido to invest. We cannot love everything at once. If we invest our libido into our past and spend time recollecting pleasurable memories, we cannot invest it into our future. To learn something requires that you love that thing, that your libido/interest is in it. Intelligence without affect is sterile. To learn, one needs both cognitive ability and the right affective disposition. This piece of Freudian wisdom has been corroborated empirically by educational psychologists (Snow & Farr, 1987) who found that those who are passionately interested in the topic they study learn 30 times faster and better than those who have no interest in the topic. In other words, people who move towards the future gain an economic advantage because they *love the future*. They invest time and energy (i.e. libido) in dreaming that future, anticipating it, and making it happen. And that investment pays dividends in mental health (happiness is positively correlated with a future-orientation; Haidt, 2006) and economic wealth.

The tragedy of people who fear change and love the past more than the future is a very good example of relational economic geography (Bathelt & Glückler, 2003). Virginia Postrel's (1999) penetrating analysis of the social dialectic between the "stasists" (people who try to move away or against change) and the "dynamists" (people who move towards change) within the US at the turn of the millennium captures with Hegelian elegance the underlying causes of this tragedy. As she explains (1999: 204):

A city, an economy, or a culture is, despite the best efforts of stasists, fundamentally a 'natural' system. As a whole, it is beyond anyone's control. Any individual effort at improvement changes not just its particular target but the broader system. In that process, there may be progress, but there will also be disruptions, adjustments, and losers.

The ballet between social change and social stagnation is a scalar phenomenon that encompasses each of us (our inner conflicts) and all of us. Just as in Tolstoy's novels, the contours of circumstances escape in the background of our everyday awareness, but once reconciled with this elusiveness of the *Zeitgeist*, we might start to bring a much needed sense of history to our economic geographies.

Conclusion

Both economists and economic geographers tend to think too abstractly and their inability to understand some of the stubborn attributes of the economic landscape may be an indirect consequence of their remoteness from their own inner lives. As Karen Horney's *The paucity of inner experiences* (1952b/2000: 286) reminds us, "The more remote a person is from his inner life, the more abstract his thinking". The trick is that one cannot read this paper without wondering which of the five entrenched patterns of hot cognition

drive one. In other words, the very reading of this article has the therapeutic effect of bringing the readers closer to their inner selves. Furthermore, we might recognize in the description of the various types our neighbours, friends, relatives, and colleagues. We might begin to learn to pay attention to the affective dimensions of economic activity, and thus enrich our theoretical sensitivity and our grasp of how the economic world really works. Economies are made of diverse people (Gertler, 2003). People laugh, cry, yell, belch, and fart. Some want to stand out, some want to be loved, some want to be left alone, some want for things to remain the way they are, and some want the excitations brought about by novelty. Capitalism flourishes because it plays to these wants and these irrational affects. Economists and economic geographers will keep wasting precious paper and ink by trying to explain capitalism without *themselves* understanding the affective things understood by capitalism. As Nigel Thrift put it (2006: 302):

Capitalism is carpeting expectation and capturing potential. Simple condemnation of this tendency...will not do. Rather, it seems to me to call for radically new imaginings of exactly how things are, but under a new aspect that we can currently only glimpse, 'a tune beyond us, yet ourselves', as Wallace Stevens put it.

This paper was an attempt to help its readers glimpse the kind of tune Nigel Thrift was alluding to in his argument. I have written it while reflecting on Sternberg's theory of foolishness (Sternberg, 2005). Sternberg conceives foolishness as a "way of being" driven by five bad habits of the mind: insouciance (not caring about the consequences of one's actions), omnipotence (believing that one can control everything), invulnerability (believing that one is too smart to get caught), egocentrism (not caring about how what one does affects others), and omniscience (believing that one knows all the important things). One troubling variant of omniscience in academe today results from our fooling

ourselves with the inference that if we keep up-to-date with the latest research, we will know all the relevant things. The problem with this inference comes from assuming that older research that is not massively referenced is not worth consulting. In reality, as philosopher Daniel Dennett (2006) has shown, the way science works allows for some very good research to slip into oblivion despite its high quality. This paper brought to the surface the forgotten work of Karen Horney and Fritz Riemann to show that their theories can fertilise economics and economic geography in unexpected ways. In daring to undertake this kind of scholarship, Dennett's words have given me confidence that I was wasting neither my time, nor yours (2006: 80):

We could start projects...to elevate the forgotten gems, rendering them accessible to the next generation of researchers...we should try... [to] help people recognize the importance of providing for each other this sort of pathfinding through the forest of information.

On the academic front, the task ahead remains to operationalise the hypotheses proposed in this paper and subject them to detailed empirical investigation, ideally in a cross-cultural research design. On the political and social front, the task for social activists and educators is to tailor their interventions with an eye to the importance of hot cognition and to the difficulty of resetting its entrenched patterns.

References

Archer, J., Côté, S. (2005) Sex differences in aggressive behaviour: a developmental and evolutionary perspective, in *Developmental origins of aggression* Eds R E Tremblay, W W Hartup and J Archer, New York: Guilford Press, 425-443.

Bathelt, H., Glückler, J. (2003), Toward a relational economic geography, *Journal of Economic Geography*, 3:117-144

Bernheim B.D., (2009), On the potential of neuroeconomics: a critical (but hopeful) appraisal *American Economic Journal: Microeconomics* Forthcoming.

Boniwell, I., Zimbardo, P., (2004) Balancing Time Perspective in Pursuit of Optimal Functioning, in *Positive Psychology in Practice* Eds P A Linley, S Joseph, New Jersey: John Wiley & Sons, 165-179.

Bunzeck, N., Düzel, E., (2006), Absolute Coding of Stimulus Novelty in the Human Substantia Nigra/VTA, *Neuron*, 51(3): 369-79

Camerer, C., Loewenstein, G., Prelec, D. (2005), Neuroeconomics: how neuroscience can inform economics, *Journal of Economic Literature*, XLIII: 9-64

Cosmides, L., Tooby, J. (2006) *Universal Minds: Explaining the new science of evolutionary psychology*. New Haven, CT: Yale University Press.

Davidson, R. J., (2004), Well-being and affective style: neural substrates and biobehavioural correlates, *Philosophical Transactions of the Royal Society*, 359: 1395-1411

Dennett, D. (2006) *There aren't enough minds to house the population explosion of memes* The world question center 2006, www.edge.org Accessed 1/30/2006

Frank, R., H., Cook, P., J. (1995) *The Winner-Take-All Society*. New York: Free Press.

Freud, S. (1908/1991) *Character and anal erotism*, in S Freud, *On sexuality* London: Penguin, 205-215.

Freud, S., (1940/1979) *An Outline of Psychoanalysis*. London: Hogarth Press.

Friedman, T., R. (2006) *The world is flat. A Brief History of the Twenty-first Century*. New York: Farrar, Straus and Giroux, 2nd edition.

Gertler, M., S. (2003), Tacit knowledge and the economic geography of context, or The undefinable tacitness of being (there), *Journal of Economic Geography*, 3: 75-99

Grabher, G., Ibert, O. (2006), Bad company? The ambiguity of personal knowledge networks, *Journal of Economic Geography*, 6(3): 251-271

Haidt, J. (2006) *The happiness hypothesis: Finding modern truth in ancient wisdom*. New York: Basic Books.

Harris, J., R. (2006) *No two alike. Human nature and human individuality*. New York: W. W. Norton & Company.

Harvey, D. (2003) *The New Imperialism*. Oxford: Oxford University Press.

Hendrick, I. (1943), The discussion of the instinct to master, *Psychoanalytic Quarterly*, XII: 563-568

Horney, K. (1935/2000) Woman's fear of action, in B Paris, ed, *The unknown Karen Horney. Essays on gender, culture, and psychoanalysis* New Haven: Yale University Press, 117-123.

Horney, K. (1942) *Self-analysis*. New York: W. W. Norton & Company.

Horney, K. (1945) *Our inner conflicts*. New York: W.W. Norton & Company.

Horney, K. (1950) *Neurosis and human growth. The struggle for self-realization*. London: W. W. Norton & Company.

Horney, K. (1952a/2000) Human nature can change, in B Paris, ed, *The unknown Karen Horney. Essays on gender, culture, and psychoanalysis* New Haven: Yale University Press, 295-298.

Horney, K. (1952b/2000) The paucity of inner experiences, in B Paris, ed, *The unknown Karen Horney. Essays on gender, culture, and psychoanalysis* New Haven: Yale University Press, 283-294.

Horney, K. (1967) *Feminine Psychology*. New York: W.W. Norton & Company.

Kaës, R. (2000) Réalité psychique et souffrance dans les institutions (Psychic reality and suffering in the institutions), In R Kaës, ed, *L'institution et les institutions. Études psychanalytiques (The institution and the institutions. Psychoanalytical studies)*, Paris: Dunot, 2nd edition, 1-46.

Kanazawa, S. (2005), Is "Discrimination" Necessary to Explain the Sex Gap in Earnings?, *Journal of Economic Psychology*, 26: 269-287

Kandel, E. (2006) *In Search of Memory: The Emergence of a New Science of Mind*. New York: W. W. Norton.

Laplanche, J. (1997) *Le primat de l'autre en psychanalyse (The primacy of the Other in psychoanalysis)*. Paris: Flammarion.

Luborsky, L., Barrett, M. (2006), The history and empirical status of key psychoanalytic concepts, *Annual Review of Clinical Psychology*, 2: 1-19

Luciano, M., Wainwright, M. A., Wright, M. J., Martin, N. G. (2006), The heritability of conscientiousness facets and their relationship to IQ and academic achievement, *Personality and Individual Differences*, 40 (6): 1189-1199

McDowell, L. (2001) Linking scales: or how research about gender and organizations raises new issues for economic geography, *Journal of Economic Geography*, 1: 227-250

McDowell, L. (2005), Love, money and gender divisions of labour, *Journal of Economic Geography*, 5(3): 365 – 379

Miller, A., Goldblatt, A. (1989) *The Hamlet Syndrome. Overthinkers who underachieve*. New York: William Morrow and Co.

Moutafi, J., Furnham, A., Paltiel, L. (2004), Why is conscientiousness negatively correlated with intelligence?, *Personality and Individual Differences*, 37:1013-1022

Nietzsche, F. (1887/1967) *On the genealogy of morals*. New York: Viking.

Noll, J., Horn, J. (1998) Age differences in processes of fluid and chrystallized intelligence. Chapter 4 in J McArdle & R Woodcock, eds, *Human cognitive abilities in theory and practice*, Chicago, IL: Riverside Press, 263-281.

Pérusse, D., Gendreau, P. L. (2005) Genetics and the development of aggression, in *Developmental origins of aggression* Eds R E Tremblay, W W Hartup and J Archer, New York: Guilford Press, 223-241.

Postrel, V. (1999) *The future and its enemies. The growing conflict over creativity, enterprise, and progress*. New York: Touchstone.

Riemann, F. (2005) *Formele fundamentale ale angoasei (The fundamental forms of anxiety)*. Bucharest: Editura Trei.

Salthouse, T.A. (2009) When does age-related cognitive decline begin? *Neurobiology of Aging* 30 (4): 507-514.

Scott, A., J. (2004), A Perspective of Economic Geography, *Journal of Economic Geography*, 4(5): 479-499

Snow, R., Farr, M. (1987) Cognitive-conative-affective processes in aptitude, learning, and instruction: An introduction. In R. Snow & M. Farr, Eds, *Conative and Affective Process Analysis*. Hillsdale, NJ: Erlbaum Associates.

Snyder, K. (2006) *The G Quotient: Why Gay Executives are Excelling as Leaders... And What Every Manager Needs to Know*. New York: Jossey-Bass.

Sternberg, R. (2005) Foolishness, in *A handbook of wisdom. Psychological perspectives*. Eds R. Sternberg & J. Jordan, Cambridge: Cambridge University Press, 331-352.

Storper, M., Venables, A. J. (2004), Buzz: face-to-face contact and the urban economy, *Journal of Economic Geography*, 4(4): 351-370

Suhler C. L., Churchland P.S., (2009), Control: conscious and otherwise, *Trends in Cognitive Sciences* 13(8).

Thrift, N. (2006), Re-inventing invention: new tendencies in capitalist commodification, *Economy and Society*, 35(2): 279-306

Toffler, A., Toffler, H. (2006) *Revolutionary wealth*. New York: Knopf.

Van Goozen, S. (2005) Hormones and the developmental origins of aggression, in *Developmental origins of aggression* Eds R E Tremblay, W W Hartup and J Archer, New York: Guilford Press, 281-306.

White, R. L. (1959), Motivation reconsidered: the concept of competence, *Psychological Review*, 66: 297-333.