

IS THERE A GEOGRAPHY OF THOUGHT ?

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In a series of fascinating studies (among which Nisbett, Choi, Peng, Norenzayan 2001; Nisbett 2003; Nisbett and Masuda 2003), Richard Nisbett and his associates have produced a number of psychological experiments which display large patterns of differences between “Westerner” and “Eastern Asian” subjects on a number of cognitive tasks, which purport to reveal strong differences in cognitive processes, styles of thinking and reasoning and ultimately in overall world-views between the two groups. Nisbett and his colleagues claim, on the basis of these experimental studies, that they show that social differences between cultures affect not only the subjects’ cognitive processes, but also their beliefs about the world and their overall epistemologies. The order of determination, according to them, is the following: (1) social organisation directs attention to some aspect of the field at the expense of others (2) what is attended to influences metaphysics, *i.e* beliefs about the world and causality, (3) metaphysics in turn guides tacit epistemology, that is beliefs about what it is important to know, and how knowledge can be obtained, (4) epistemology dictates the development and application of some cognitive processes at the expense of others, (5) social organisation and social practices can influence directly the development and use of cognitive processes such as dialectical vs logical ones (Nisbett, Peng, Choi and Norenzayan 2001: 291-92). It is easy to draw from these studies the conclusion that the differences of thought and cognitive processes between Westerners and Easterners are relative to their cultures and to the social systems to which they belong, hence that Nisbett and his colleagues are relativists. But they deny being relativists (Nisbett 2003: 2002-2004; Nisbett, Choi, Peng, Norenzayan 2001: 306). They accept that members of different cultures are not locked in their styles of thinking and that each group can benefit from the styles of thinking of the other groups; they do not hold the view that nothing in cognition is innate or universal. Their view, they tell us, is quite compatible with much of recent work in cognitive science which purports to show that cognitive processes are not under cultural influence. I am unconvinced. In the first place, I am not sure that the experimental results really show that the differences in thought and cognitive processes between the two kinds of cultures are to be located exactly where Nisbett and his colleagues say they are located. In the second place, a number of claims such as (1)-(5) above do seem to me, in spite of Nisbett’s denial, to have strong relativistic implications. It is not my purpose here

to reopen the whole debate about rationality and relativism, and relativism might, after all, be true. I shall, however try to indicate why this view is wrong on independent grounds.

1. Nisbett's arguments

Let us first review some of Nisbett and his colleagues' main arguments¹. They list a series of well documented differences between Western and Eastern culture at a very general level. It is a sort of commonplace that Western thought, from the Greeks to the present, is dominated by analytic thought, whereas Eastern thought is essentially holistic. Holistic approaches rely on experience-based knowledge rather than abstract logic and are *dialectical*, meaning that there is an emphasis on change, a recognition of contradiction and the need for multiple perspectives, and a search for the "Middle Way" between opposing propositions. Analytic thought, by contrast, involves detachment of the object from its context, a tendency to focus on attributes of the object in order to assign it to categories, and a preference for using rules about the categories to explain and predict.

This is reflected, according to Nisbett and his colleagues, both in the basic metaphysical categories in both cultures and in the kind of epistemology and methodology that is developed in both. Quoting Chad Hansen, Nisbett reports that "A fundamental intellectual difference between the Chinese and the Greeks was that the Chinese held the "view that the world is a collection of overlapping and interpenetrating stuffs or substances... [This contrasts] with the traditional Platonic philosophical picture of objects which are understood as individuals or particulars which instantiate or 'have' properties" which are themselves universals, e.g. "whiteness," "hardness." Since the Chinese were oriented toward continuities and relationships, the individual object was "not a primary conceptual starting point." Instead, "parts exist only within wholes, to which they have inseparable relations". The Greeks, in contrast, were inclined to focus primarily on the central object and its attributes. This tendency likely contributed to the Greeks' lack of understanding of the fundamental nature of causality in the physical domain. Aristotle explained a stone's falling through the air as being due to the stone having the property of "gravity" and explained a piece of wood's floating on the surface of water as being due to the wood having the property of "levity." The Chinese, in contrast, recognized that all events are due to the operation of a field of forces. They had knowledge of magnetism and acoustic resonance, for example, and knew the correct explanation for the behaviour of the tides.

The Chinese were concerned with relationships among objects and events. In contrast, the Greeks were more inclined to focus upon the categories and rules that

¹ I shall just paraphrase or quote the claims in their various studies listed in the bibliography; and I shall only give a sample of their claims and experiments which are very substantial.

would help them to understand the behaviour of the object independent of its context. The Chinese were convinced of the fundamental relatedness of all things and the consequent alteration of objects and events by the context in which they were located. It is only the whole that exists; and the parts are linked relationally, like “the ropes in a net”. Thus any attempt to categorize objects with precision would not have seemed an important epistemic goal.

The Chinese seem not to have been motivated to seek for first principles underlying their mathematical procedures or scientific assumptions, and they did not develop any formal systems of logic or anything like an Aristotelian syllogism”. Indeed, there was an absence “not only of formal logical systems, but indeed of a principle of contradiction”. In place of logic, the Chinese developed a *dialectic* which involves reconciling, transcending, or even accepting apparent contradictions. In the Chinese intellectual tradition there is no necessary incompatibility between the belief that A and *not* A both have merit. Indeed, in the spirit of the *Tao* or of the *yin-yang* principle, A can actually imply that *not* A is also the case—the opposite of a state of affairs can exist simultaneously with the state of affairs itself. The Chinese sought intuitive instantaneous understanding through direct perception. This resulted in a focus on particular instances and concrete cases in Chinese thought. Many Greeks favoured the epistemology of logic and abstract principles, and many philosophers, especially Plato and his followers, actually viewed concrete perception and direct experiential knowledge as unreliable and incomplete at best, and downright misleading at worst. Thus they were prepared to reject the evidence of the senses when it conflicted with reason.

Another basic difference emphasised by Nisbett and his colleagues is that Chinese subjects are situation-centered. They are utterly sensitive to their environment, both social and physical, whereas Westerners are individual-centered: they expect their environment to be sensitive to them, not conversely. Thus, Chinese tend to assume a passive attitude while Americans tend to possess an active and conquering attitude in dealing with their environment. [The American] orientation may inhibit the development of a tendency to perceive objects in the environmental context in terms of relationships or interdependence. On the other hand, the Chinese child learns very early to view the world as based on a network of relationships; he is socio-oriented, or situation-centered.

The interesting part of Nisbett and his colleagues’ argument comes in the etiology that they give of these differences, and in the psychological experiments they have devised to test them. The order of explanation is, according to them the following:

- 1) Social organization directs attention to some aspects of a given field at the expense of others.
- 2) What is attended to influences metaphysics, that is, beliefs about the nature of the world and about causality.

- 3) Metaphysics guides tacit epistemology, that is, beliefs about what it is important to know and how knowledge can be obtained.
- 4) In turn epistemology dictates the development and application of some cognitive processes at the expense of others.

So social factors come first, they influence cognitive processes, which in turn influence the carving up of the world into categories and epistemological access to these categories. I only report a few samples of Nisbett and his associates' experimental work.

a) attention.

The way in which social factors impinge on cognitive processes is revealed by differences in attention to a given task. Attention to the social environment is what underlies the ancient Chinese's attention to the field in general and accounts in part for metaphysical beliefs such as their recognition of the principle of action at a distance. One should expect, therefore, that contemporary Easterners and Westerners attend to different aspects of the environment. East Asians would be expected to attend more to the field than European and Americans, who would be expected to attend more to a salient target object. Implications about various processes would seem to follow: East Asians should be more accurate at *covariation detection* than Americans, that is, the perception of relationships within the field. East Asians should also be more *field dependent*, that is, they should find it more difficult than Americans to isolate and analyze an object while ignoring the field in which it is embedded.

This is shown in various experiments. Masuda and Nisbett (2001) presented realistic animated scenes of fish and other underwater objects to Japanese and Americans and asked them to report what they had seen. The first statement by American participants usually referred to the focal fish ("there was what looked like a trout swimming to the right") whereas the first statement by Japanese participants usually referred to background elements ("there was a lake or pond"). Although Americans and Japanese were equally likely to mention details about the focal fish, Japanese participants made about 70 percent more statements about background aspects of the environment. In addition, Japanese participants made about 100 percent more statement concerning relations involving inanimate aspects of the environment ("the big fish swam past the grey seaweed"). (Nisbett, Peng, Choi & Norenzyan 2003: 301)

If a belief in personal agency underlies Greek curiosity and the invention of science, then Americans might be expected to perceive more control in a given situation than East Asians and to benefit more from being given control. They might also be more subject to the *illusion of control*, that is, a greater expectation

of success when the self is involved in interaction with the object – even when that interaction could not logically have an effect on the outcome

In one condition of the covariation detection task, participants were allowed to push a button to control which stimulus was presented on the left and they could also control the inter-trial interval. Whereas this manipulation could have no effect on the degree of covariation, Americans who were given “control” in this fashion tended to see more covariation and express more confidence in their judgments about covariation, whereas Chinese participants showed the opposite tendencies. Moreover, control actually impaired the calibration of Chinese judgments, whereas this was not true for Americans. Similarly, in the Rod and Frame task, when participants were allowed to control the movement of the rod, the accuracy of American males improved whereas that of the other groups did not. Finally, the confidence of both American males and American females was greater when they had control over the rod, and this was not true for East Asians of either gender. (ibid)

b) *reasoning and categorisation*

East Asians might be expected to rely more on prior beliefs and experience-based strategies when evaluating the convincingness of formal arguments than do Americans. We might also find that East Asians would be heavily influenced by prior beliefs in judging the soundness of formal arguments. Americans should be more capable of ignoring prior beliefs and setting aside experience in favour of reasoning based on logical rules.

This predicts that *typicality effects*, where classification of objects according to their similarity to an exemplar (e.g. eagles are more typical of birds than penguins) matter more in reasoning than abstract relations between classes, would be more salient in Asian subjects. Norenzayan, Nisbett, Smith and Kim (Norenzayan, 1999; Norenzayan et al., 2000) presented East Asians (Chinese and Koreans), Asian Americans and European Americans with a series of stimuli on a computer screen in which a simple target object appeared beneath two groups of four similar objects. The groups were always constructed so that the use of a family resemblance strategy and the use of a rule strategy led to different responses. The objects in one group had a close family resemblance to each other and to the target object whereas the objects in the other group did not share a close resemblance with the target object. Instead, the objects of the second group were all describable by a unidimensional, deterministic rule, for example, they all had a curved stem (vs. a straight stem), and the rule was also applicable to the target object. Participants were asked to indicate which group the target object was most similar to. A majority of East Asian participants picked the “family resemblance” group whereas a majority of the European American participants picked the “rule” group.

Consider the following two deductive arguments. Is one is more convincing than the other?

1. All birds have ulnar arteries
Therefore all eagles have ulnar arteries
2. All birds have ulnar arteries
Therefore all penguins have ulnar arteries

Norenzayan and colleagues (2000) asked Korean, Asian American, and European American participants to evaluate the convincingness of a series of such arguments. The responses of participants who received only typical arguments were compared with those who received only atypical arguments. As expected, Koreans showed a large typicality effect, being more convinced by typical than atypical arguments. European Americans, in contrast, were equally convinced by typical and atypical arguments. Asian Americans' responses were in between those of European Americans and Koreans. (When an experimental manipulation was introduced that increased the salience of the typicality information, all three groups showed the typicality effect to the same extent.) (Nisbett, Peng, Choi & Norenzayan 2003: 301)

c) attitudes to contradiction

If harmony remains the key to social relations for East Asians, and if social needs influence intellectual stances, East Asians would be expected to seek compromise solutions to problems, to prefer arguments based on principles of holism and continuity, and to try to reconcile or transcend seeming contradictions. If the debater's concern about contradiction continues to affect Western approaches to problems, Americans should be more inclined to reject one or both of two propositions that could be construed as contradicting one another.

One of the strongest implications of the notion that Westerners adhere to a logical analysis of problems is that, when presented with apparently contradictory propositions, they should be inclined to reject one in favour of the other. Easterners, on the other hand, committed to the principle of the Middle Way, might be inclined to embrace both propositions, finding them each to have merit. In one study, Peng and Nisbett (Peng & Nisbett, 1999) presented participants either with one proposition or with two propositions that were, if not outright contradictions, at least very different and on the surface unlikely to both be true.

The propositions were presented in the form of social science studies. For example, one proposition was: "A survey found that older inmates are more likely to be ones who are serving long sentences because they have committed severely violent crimes. The authors concluded that they should be held in prison even in the case of a prison population crisis." Its counterpart was: "A report on the prison overcrowding issue suggests that older inmates are less likely to commit

new crimes. Therefore, if there is a prison population crisis, they should be released first.”

Participants read about one of these studies (A or B) or both (A and B) and rated their plausibility. In the case of all five issues presented, Chinese and American participants agreed on which of the two was the more plausible. In the A and B condition, Americans judged the plausibility of the more plausible proposition as greater than did Americans who read only the more plausible assertion by itself. Thus Americans actually found a contradicted assertion to be more plausible than the same proposition when not contradicted, a normatively dubious tendency which indicates that they felt substantial pressure to resolve the contradiction by buttressing their prior beliefs. In contrast, Chinese participants in the A and B condition resolved the contradiction between the two propositions by finding them to be equally plausible, as if they felt obligated to find merit in both the conflicting propositions. They actually found the *less plausible* proposition to have more merit when it had been contradicted than when it had not—also a normatively dubious inference but utterly different in kind from that of the Americans . (Nisbett, Peng, Choi & Norenzyan 2003: 302)

d) epistemological intuitions

An interesting set of results, which is not due to Nisbett, but to the philosopher Stephen Stich and his associates, is relevant to the study of cultural differences between Asian and European and goes in the same direction as Nisbett's. According to Nisbett and his colleagues, we should expect that social relations influence the naïve epistemology of subjects within a given culture. The upshot of the kind of explanations of style (1)-(4) above is that epistemological intuitions about the very concept of knowledge, and its relation to the notion of belief, should vary from culture to culture, and from one socio economic group to another. Stich and alii (1999) have asked to groups of subjects belonging to Asian and to Occidental cultures respectively a series of questions based on what are known in analytic epistemology as “ Gettier problems” (Gettier 1963). Gettier problems are situations where a subject has a justified true belief with respect to a proposition which falls short of being knowledge because of some fluke or chancy circumstance. For instance someone, for good reasons believes that Mr X owns a car, and infers from this belief that some individual owns a car, but unbeknownst to him the person who owns the car is not the one he had in mind. In such a case our man does not know that someone owns a car, although he has a justified belief to the effect that someone own a car. Stich and his associates use the structure such examples to give to different groups of subjects the following kind of problems:

Bob has a friend, Jill, who has driven a Buick for many years. Bob therefore thinks that Jill drives an American car. He is not aware, however, that her Buick has recently been stolen, and he is also not aware that Jill has replaced it with a Pontiac, which is a different kind of American car. Does Bob really know that Jill drives an American car, or does he only believe it?

REALLY KNOWS

ONLY BELIEVES

This probe produced a striking difference between the groups (Fisher Exact Test, $p = .006$). While a large majority of Westerners give the standard answer in the philosophical literature, viz. “Only Believes,” a majority of Easterners have the *opposite* intuition – they said that Bob really knows.

: What these experiments mean, according to Stich and his colleagues, is that Asians are much less sensitive to the Eastern intuition that knowledge is *justified* true belief, or reliable true belief. It is enough for them that we have true beliefs in order to have knowledge. Hence a large part of contemporary (Western) epistemology, which is based on such intuitions, turns out to be unwittingly culture relative. As Stich comments:

“A number of Western philosophers maintain that the intuitions invoked in skeptical arguments have nothing to do with being Western or a philosopher. Rather, these intuitions are regarded as intrinsic to human nature and cross-culturally universal. We’ve argued that our evidence poses a serious challenge to this universalist stance. Our data suggest that some of the most familiar skeptical intuitions are far from universal – they vary as a function of culture, SES, and educational background. We find that this evidence generates a nagging sense that our own skeptical intuitions are parochial vestiges of our culture and education. Had we been raised in a different culture or SES group or had a different educational background, we would have been much less likely to find these intuitions compelling. This historical arbitrariness of our skeptical intuitions leads us to be skeptical that we can trust these intuitions to be true; for we see no reason to think that our cultural and intellectual tribe should be so privileged.” (Stich et alii 1999)

3. How to interpret the evidence for cultural differences?

The originality and the merits of Nisbett and his associate’s studies is beyond dispute. Their experimental work is systematic, ingenious, and much telling. The problem is : what does it really tell us? From such declarations as Stich’s above, these results seem to imply a strong form of cultural relativism. But given the

vagueness of such labels as “relativism”, as well as the bad reputation that the view has in most philosophical circles, we have better look at what Nisbett says on this issue. Surprisingly, he says very little:

“Our theoretical position is at the same time less radical and more radical than the assertion that basic processes differ across cultures. We are urging the view that metaphysics, epistemology, and cognitive processes exist in mutually dependent and reinforcing systems of thought such that a given stimulus situation often triggers quite different processes in one culture than in another. Thus it is not possible to make a sharp distinction between cognitive process and cognitive content. Content in the form of metaphysical beliefs about the nature of the world determines tacit epistemology. Tacit epistemology in turn dictates the cognitive procedures that people use for solving particular problems.”

If I understand correctly, Nisbett here is saying that the ordinary dispute between relativism and universalism is a dispute about *cognitive content*. But there is, according to him, no principled division between cognitive content and cognitive processes. The erasing of a sharp distinction between processes and content threatens the whole relativism / universalism issue. Nisbett considers that his claims are in fact perfectly compatible with a form of universalism about cognitive content:

“ It is ironic that, just as our evidence indicates that some cognitive *processes* are highly susceptible to cultural influence, other investigators are providing evidence that some cognitive *content* may not be very susceptible to cultural influence. So it appears that the assumption that cognitive content is learned and indefinitely malleable and the assumption that cognitive processes are universally the same and biologically fixed may both be quite wrong. Some important content may be universal and part of our biologically-given equipment and some important processes may be highly alterable. While it is still the case that widely different social and intellectual traditions exist on the planet we have an opportunity to learn a great deal more about the fixedness and malleability of both content and process.”

Elsewhere they claim that the cultural relativity and diversity pertains more to the pragmatic factors of cognition, the way problems are solved, and which cognitive tools are used, rather than to cognitive content themselves.

The psychological ideas that our position most closely resembles are those in the Vygotskian (1978; 1987) tradition (e.g., Cole, 1995; Cole & Scribner, 1974; Hutchins, 1995; Lave, 1988; Luria, 1931; Rogoff, 1990), which insists that thought always occurs in a pragmatic problem setting, including the cultural assumptions that are brought to the task. This view, recently referred to as the “situated cognition” view, has been defined by Resnick as the assumption that “the tools of thought...embody a culture’s intellectual history....Tools have theories built into

them, and users accept these theories—albeit unknowingly—when they use these tools” (Resnick, 1994, pp. 476-477).

I find all these claims rather unconvincing or problematic, either because of what the evidence is supposed to show, or because the general line of argument which is supposed to underlie them does not seem to establish quite what Nisbett claims.

In the first place, the idea that certain tasks are evaluated by Eastern groups on the basis of contextual clues, depending upon the overall appreciation of a situation, and not according to various context dependent logical rules is not convincing in the case of typicality effects. The psychological literature on reasoning is replete with examples of the following sort. If subjects are given a simple deduction of the form

If Paul goes fishing he will have a good dinner
 Paul went fishing
 He will have a good dinner

When presented with a further premise, subjects fail to draw the conclusion:

If Paul goes fishing he will have a good dinner
 If Paul catches a fish he will have a good dinner
 Paul went fishing
 He will have a good dinner

This is distinct from the typicality effect mentioned above in (b) , since it is a case of non monotonous reasoning where an inference is cancelled when a new information is provided (contrary to what happens in deductive monotonous reasoning where adding a premiss to an inference does not affect its validity), but it is clearly a case where the judgement about the validity of the reasoning is affected by the prior beliefs of the subjects, and where logical deduction is evaluated differently depending upon contextual effects and default beliefs. This effect is observed in any kind of population, and is not special to Easterners. Non mononicity of this sort is clearly a matter of the way in which additional empirical information can affect our judgements about what follows from what, and it is clearly a “contextual” effect, where what we know about the world impinges about what we infer from what. This is because the reasoning above is in part inductive. Now, inductive reasoning, contrary to deductive reasoning, *is* context sensitive: inductive inferences are relative to how much empirical information enters and the conclusion may change when new premises are added . Easterners should therefore be expected to respond differently to inferential tasks as soon as an inductive element comes in, and this is exactly what a lot of psychological research on reasoning has established (see e.g Byrne 1989 on conditional reasoning). More

generally the idea that people do not reason with rules of logic, or that logic is most of the time irrelevant to ordinary reasoning in the sense that people do not follow logical rules is quite common in the psychological and the philosophical literature (see e.g. for classical statements of the view Harman 1986, Johnson-Laird 1983). It has nothing special to do with cultural differences and can be sustained within Western culture. If Europeans do not reason through logical rules, what would show the fact that Chinese people do not so reason ?

A similar remark could be advanced against Stich's results about our epistemological intuitions. Stich is concerned to show that the average student and academic in an American or European university may have a concept of knowledge as justified true belief which is revealed by their answer to Gettier examples, and his point is that for Asians, knowledge is unproblematically assimilated to true belief. But there is nothing special about Asians in that respect. According to an influential view about the concept of knowledge, epistemological contextualism, our use of the concept of knowledge obeys varying standards, which can, in some contexts, be low, and in some other context be high (see e.g. deRose 1995), with the result that the meaning of "knows" varies across contexts. For instance our intuitions about what we know are affected by how much, in a given situation, is at stake. If, for example, in one situation you do not particularly care whether the bank is open on Saturdays, a passer by's testimony to the effect that it is open will be enough to ascribe to you knowledge about it. But in a situation where you care very much whether the bank is open (you have an impending bill and if you do not deposit a check your account is going to be empty) the testimony will not be enough for you do not count as "knowing" that the bank will be open, you will have stricter standards for knowledge. Now suppose that such a contextualism about knowledge were true. Asian and Westerners alike would be sensitive to the contextual changes of the meaning of "know" in exactly the same way. Whether or not this view accounts for our intuitions about knowledge, it has nothing special to do with cultural differences.

Let us now consider point (c) above, that Asians are more prone to accept contradictions than Easterners. It is ambiguous, for there are two distinct senses of "accept" here: having genuinely contradictory beliefs on the one hand and having beliefs about whether our beliefs should or should not be contradictory on the other hand. The first beliefs are at the cognitive, first-order, level; the second beliefs are at the metacognitive, second-order, level. Nisbett and his associates' results purport to show that Chinese subjects, when a conflict exists between beliefs, are more prone than Europeans and Americans, to find a middle way, especially when the beliefs are held by different groups of people. For instance one their studies shows that Chinese subjects, when presented a conflict between mothers and daughters, the later thinking that it is better to have fun and the former that it is better to go to school, tend to say that there is truth on both sides, ignoring the contradiction. Commenting studies similar to those reported in point (c) above, Nisbett and alii say :

“The results clearly indicate that Americans and Chinese can have participants who read brief accounts of two contradictory studies expressed beliefs that were more polarized than those expressed by participants who read about only one study. Chinese participants who read about two contradictory studies, in contrast, expressed beliefs that were intermediate between those expressed by participants who read about only one of the studies. The explanation for this pattern that we prefer is that both groups used heuristics in dealing with contradiction, but that these heuristics are culture-specific. For Americans, the simple heuristic might be that, if there is an apparent contradiction between two opposing perspectives, one must be right and the other must be wrong. The heuristic suggests that, consistent with the laws of non-contradiction and excluded middle, you cannot have it both ways. For the Chinese, the pattern might be due to the dialectical reasoning style of compromising between the elements of opposing perspectives. The Chinese heuristic for dealing with apparent contradiction may consist of believing that both sides of a contradiction might be right, and that the truth lies between the two perspectives. Such an approach could be derived from the dialectical epistemology, which advocates tolerance of seeming contradiction.”

But is one thing to try to ignore consciously a contradiction which one recognises, as in this case, and systematically being blind to contradictions. The example shows on the contrary that the subjects in this test have an explicit perception of the contradiction. Their try to minimize it, which is quite different from explicitly accepting contradictory beliefs. In general it seems that many of Nisbett’s studies do not mark clearly the difference between conforming to logical rules – such as not believing P and not P - - at the *cognitive*, first order level, of *beliefs* on the one hand, and adopting these very rules at the *metacognitive* level of second-order beliefs on the other hand – such as : *do not believe both P and not P* . It may well be that Chinese subjects are, like any non Chinese, sensitive to contradictions at the first order level, while at the same time not accepting such rules as the principle of non

contradiction at the metacognitive level . The distinction is well entrenched in the psychological literature. (see e.g. Johnson-Laird and Byrne 1991: 147).²

With respect to the issue of the relevance of logic to reasoning which is supposed to separate the Western mind from the Eastern mind, it is one thing to say that (i) logic is irrelevant to reasoning because the usual logical laws or rules of inference (of classical logic) do not *describe* the actual processes of reasoning, and because subjects do not have an *explicit* representation of the laws, and it is quite another thing to say that (ii) logic is irrelevant to reasoning because the usual logic laws and rules of inference (of classical logic) do not *prescribe* the way to reason, nor guide *implicitly* our actual reasoning. Nisbett claims that Easterners are not sensitive to logical rules in sense (ii), whereas Westerners are sensitive in sense (ii). In some sense he wants to say that the kinds of norms of thinking that are obeyed in one culture are distinct from those of another, socially and geographically unrelated culture. This is probably correct and his studies show, as we have seen, a strong attention to contradictions among Asian subjects. But this issue is quite independent of whether the former and the latter differ about (i). Nothing in the psychological experiments shows that the Asian subjects are unaware of contradictions. The members of both cultures may well reason implicitly at the first-order level in the same way.

Here there might well be a stronger difference between processes and contents than Nisbett allows. . The content of a thought, whatever kind of concepts feature in it, is partly determined by its logical relations to other contents. None of Nisbett 's studies purport to show, for instance, that for an Asian subject an object could be both F and not F, or that if an object *a* is, therefore *something* is F, etc. There is no reason to think, for instance that where an Westerner believes that fish swim in water, Asian do not believe the same thing. There is no reason to think that they do not share the concept of fish, etc. In this sense, contents are cross cultural, because a modicum of logical relations is needed for there to be thoughts and because core concepts may not vary across cultures. But, to insist, it is one thing to instantiate, in one's thought, elementary logical relations, and another to consider explicitly logical rules *about* thoughts. Metacognitive rules, or attitudes towards reasoning, such as ignorance or overlooking of contradictions belong to the level of processes, not to the level of *content*, or of what is thought. The level of content could manifest a large degree of cross cultural features, whereas the level of processes could be very different. Actually there seems to be a tension here in Nisbett's views. On the one hand he seems ready to acknowledge that "some important content may be universal" and "fixed" (Nisbett, Peng, Choi and Norenzayan 2003 : 306) . On the other hand he strongly insists upon the inseparability of process and content (ibid: 306). I want to suggest that a number of his studies about the relative differences in reasoning style between Asians and

² Alternatively one might be tempted to formulate the distinction which I put here in terms of the difference between cognitive and metacognitive levels as a distinction between *belief* and *acceptance* (see XX for instance): it is one thing to believe a contradiction, in the sense of having a contradictory belief, and another thing to accept a contradiction , in the sense of consciously accepting one's contradictory belief.

Westerns shows that *attitudes* towards contents (metacognitive processes) are not shared between cultures, whereas contents themselves may well be shared, in the simple sense that, for instance, Asians do not believe explicitly contradictions any more than Europeans do.

4. Relativism again

There is a more general kind of difficulty in which the geographer of thought seems to me to fall into. It is related to a classical problem with relativism . Philosophers have traditionally distinguished various forms to relativism. One big distinction is between relativism about thought contents, or about the truth of beliefs (some groups take certain beliefs to be true, other groups take the very same beliefs to be false), and relativism about justification, *i.e* the way in which the truth of beliefs is justified or warranted³. Both can be traced back to general differences in what philosophers call “conceptual schemes”. But the very difference between the content, *i.e* the truth conditions of a given belief, and the conceptual scheme of the believer or believers, has been contested, notably by Davidson’s famous argument against conceptual schemes (Davidson 1969). Roughly Davidson’s argument proceeds from the conditions of interpretation of an other’s thought and language, in order to show that these conditions are such that the idea that others could not share, by and large, the same concepts and the same truths, does not make sense. This argument in turn is itself very much subject to criticism⁴. So let us put it on one side. Relativism can either be global, affecting every region of thought and culture, or local, affecting only some kinds of beliefs (say ethical, or logical, or else) . If I understand correctly Nisbett’s view, his claim is that there is at least a *local* relativism, which pertains not to content, *i.e* about *what* people in different cultures actually think, but their *style* of thinking, their methods of discovery, and their general attitudes towards their own thought practices. According to Nisbett, as we have seen, these differences could operate both at the implicit level of cognitive processes affected by social contexts (such as attention) and at the level of the conscious attitudes of agents towards reasoning and thought in general. More specifically he holds that our acceptance (or rejection of) conscious level metaprinciples, such as the principle of contradiction, are influenced by the kind of cultural setting in which we live, and that not only the shape of our thought processes, but also the way we acknowledge a style of thinking modelled after these processes, are culture-bound.

Differences between logical codes or moral codes could be examples of such local relativism. The problem is to make sense of this. For instance a relativism of this kind would issue such claims as

³ This distinction is not the same as the one emphasised in the paragraph 3 above , between cognitive content and metacognitive attitudes towards contents. But it can be related, because the way we justify our beliefs has something to do with what kind of processes we use to assess their reliability.

⁴ See in particular Nisbett’s own criticism of it (Stich and Nisbett 1980)

- (i) In relation to logical code C, it is logically wrong not to infer Q from if P then Q and P

or

- (ii) In relation to logical code C, it is logically wrong to believe P and not P

But the same claims would be wrong with respect to another logical code D , or style of thinking. Nisbett does not, to my knowledge, give examples of explicit acknowledgement of the validity or invalidity of such rules as *modus ponens* (i) in his cross cultural studies of Easterners vs Westerners. But he comes close to formulating an at least local relativism with respect to a principle like (i):

“One of the stronger implications of the notion that Westerners adhere to a logical analysis of problems is that, when presented with apparently contradictory propositions, they should be inclined to reject one in favor of the other. Easterners, on the other hand, committed to the Principle of the Middle Way, might be inclined to embrace both propositions, finding them each to have merit. (Nisbett, Peng, choi, and Norenzyan 2003: 302)

The principle of the Middle Way is a metacognitive principle in the sense of section 3 above, consciously entertained as a logical norm , or at least as a thought principle, different from the logical principle that one should not accept contradictions. The problem is to understand how relativism about logical norms can be true. Here we could compare with Harman’s similar claim in the moral domain (Harman 1977)

For the purposes of assigning truth conditions, a judgment of the form,

it would be morally / logically wrong of P to D,

has to be understood as elliptical for a judgment of the form,

in relation to moral/ logical framework M, it would be morally/ logically wrong of P to D.

Similarly for other moral judgments.

If this is so, the relativist is trapped into a complex dialectics (which has been well unravelled by Boghossian 2006). What the relativist means is that there is always some parameter – a logical code, an heuristics, a set of processes – with respect to which propositions of the form “it is wrong to logically (morally) not to infer Q from if P then Q and P” – a parameter of which they are not conscious. But if this is the case, people are always misled about the truth conditions of their

thoughts. But then either the relativist is saying that our logical code (styles of thought, etc.) are simply *false* (in which case these codes are *erroneous*), or he is saying that they do not have truth conditions (they are *fictions*). If the former is the case, that is if we hold an error-theory for logical codes or styles of thought, how can people even come to believe these codes, and how can they have any authority over the members of a given culture? How can all codes or styles be equally false? If the latter is the case, and if the codes if they are fictions, how can they have any normative authority?

The dilemma of the geographer of thought, if he means to say that there is a relativity of styles of thinking to socio-cultural contexts is this. (i) If, on the one hand the subjects within a culture do recognize this relativity (if Westerns as well as Easterners say of each other : “We do not think *their* way”) then they are bound to accept that they do not believe the rules or the norms of thinking that they pretend to follow, for these rules have, by their own lights, no normative authority. So how on earth could they be said to follow any rules ? (ii) If, on the other hand, the subjects within a culture do not recognize the relativity of their logical rules and of their thinking styles (if this relativity is only implicit or unconscious in their thought, and shaped by their cultural habits) , then there are simply no such rules and codes. But then what is the point of drawing the geographic lines of different styles of thinking?

I am not saying that the socio-psychological studies of thought led by Richard Nisbett and his associates necessarily fall within the trap of this kind of dialectics in which self-conscious and avowed relativists fall. But sometimes I have the impression that they are close to it. This may be the reason why they are reluctant to use such a label as “relativism” for describing their findings. And wisely so.⁵

⁵ acknowledgements .

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