

G GENERALIZED SCIENCE OF HUMANITY SERIES

総合人間学叢書

Vol. 5

Brief Communications

YOSHIRO IMAEDA,

The Encounter of Buddhism with Europe. (in Japanese)

Aperçu et programme du premier Colloque SGH à Paris, Paris, 25-26 mars 2008 :

"Ecologie des transferts épistémiques dans la constitution d'une Histoire de l'Humanité"

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"Forming Consciousness, Changing Cognition For Our Better Global Community"

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Table of Contents

<i>Avertissement</i>	1
----------------------------	---

Brief Communications

Yoshiro IMAEDA, The Encounter of Buddhism with Europe. (in Japanese)	3
Aperçu et programme du premier Colloque SGH à Paris, Paris, 25-26, mars 2008 : "Ecologie des transferts épistémiques dans la constitution d' une Histoire de l'Humanité"	5
Program of the 5th International Symposium on GSH, Tokyo, 24, January 2009 : "Forming Consciousness, Changing Cognition For Our Better Global Community"	10
Prospectus and program for the Second Paris Workshop on GSH, Paris, 2-3 April 2009 : "Formation of Consciousness, Change of Cognition"	11

Articles

Hideaki NAKATANI, Ébauche d'une science généralisée de l'homme	15
Michael WITZEL, Change of Consciousness in Siberian and South Asian Shamanism	25
Jean-Louis DESSALLES, In praise of resemblance: Human communicational universals as basis for mutual acceptance	65
Dominiue LESTEL, L'étude des comunautés hybrides homme/animal à l'interface de l'éthologie et de l'ethnologie.	75

目 次

緒 言	2
-----------	---

短 信

仏教と西洋との出会い	今枝 由郎 ... 3
第1回総合人間学パリ・ワークショップ 「人類史構想のための知識交換の生態学」の概要	中谷 英明 D. レステル ... 6
第5回総合人間学国際シンポジウム 「意識を作る・認識を変える」について	中谷 英明 ... 8
第2回総合人間学パリ・ワークショップ 「意識の形成・認識の転換」の展望	中谷 英明 ... 13

論 文

総合人間学素描	中谷 英明 ... 20
シベリア及び南アジアのシャーマニズムにおける意識の転換 (英文)	ミヒヤエル・ヴィツェル ... 25
類似の効用：相互受容の基盤としての人の会話の普遍性 (英文)	ジャン＝ルイ・デサル ... 65
動物行動学と人類学のインターフェイスとしての人・動物共生社会の 研究 (仏文)	ドミニク・レステル ... 75

AVERTISSEMENT

Nos recherches sur la Science Généralisée de l'Homme (=SGH) ont été effectuées dans le cadre d'une coopération scientifique entre l'ILCAA et la MSH (2005-2010), et durant les deux périodes du projet SGH organisé au sein de l'ILCAA (2004-2007 ; 2007- 2010).

Au cours de l'année 2009, nous avons appris deux tristes nouvelles : le décès de deux éminents chercheurs, supporteurs fervents de notre projet, qui étaient tous les deux éditeurs de cette revue : le Professeur Toshitaka HIDAKA (décédé le 23 novembre 2009) et le Professeur Kazuo OHTSUKA (décédé le 29 avril 2009).

Depuis que, au premier symposium SGH, il a donné une conférence importante qui a ouvert de nouvelles perspectives à nos recherches (« Humankind as an Animal: Ethological Point of View », Tokyo, 21 mars 2005), M. HIDAKA nous a fait bénéficier à maintes reprises de ses aides et de ses conseils. Il était le seul chercheur parmi nous qui a assisté à l'ensemble de nos réunions de recherche et aux symposia (il a donné sa seconde conférence « 'Understanding' in animals », Tokyo, 10 décembre 2007), jusqu'à ce que sa santé se détériore ce dernier printemps. Nous lui devons une description claire de la nature de la science et de la nature des êtres vivants, y compris l'être humain. C'est grâce à lui que le projet SGH a pu être dans le bon chemin.

Nous regrettons aussi vivement M. OHTSUKA qui, lui aussi, n'a rien épargné pour collaborer avec nous : Bien qu'il fût très occupé par sa fonction de directeur de l'ILCAA, il a accepté de donner une conférence au 4e symposium, à l'occasion de laquelle il a montré la tolérance et l'ouverture du savoir islamique : « Four Additional Lines to the Issue of the "Islamic Knowledge" », Tokyo, 11 décembre 2007. Les qualités de tolérance et d'ouverture nous semblent devoir s'appliquer également à sa personne.

Les voix de ces deux éminents chercheurs, chaleureuses et éclairantes, resteront avec nous pour longtemps. Qu'il nous soit permis de dédier ce volume à leur mémoire.

Ce cinquième volume de *la Science Généralisée de l'Homme* contient quatre articles signés par Hideaki NAKATANI, Michael WITZEL, Jean-Louis DESSALLES, Dominiuqe LESTEL et une communication de Yoshiro IMAEDA. Ils résultent des conférences données au 5e symposium à Tokyo (WITZEL et IMAEDA), de celle donnée au 2nd colloque à Paris (DESSALLES) et de recherches collectives effectuées au sein de l'équipe SGH (NAKATANI et LESTEL).

Ce volume présente également les rapports sur les 1^{er} et 2nd colloques SGH à Paris (25-26 mars 2008 et 2-3 avril 2009) et sur le 5e symposium SGH à Tokyo (24 janvier 2009).

La SGH telle que nous l'élaborons ces quelques années commence à graduellement s'affirmer. Vous pourrez retracer son évolution, lente il est vrai, mais régulière, telle qu'elle est rapportée dans notre site web : <http://www.classics.jp/GSH/>. La seconde période triennale du projet SGH actuellement en cours se terminera fin mars 2010. Nous comptons continuer nos recherches encore pendant deux ans durant une troisième période (avril 2010 – mars 2012), durant laquelle nous réaliserons deux publications de nos acquis scientifiques, l'une en japonais, l'autre en français.

Tokyo, le 19 janvier 2010

Hideaki NAKATANI

Résponsable du Projet de recherches collectives sur la science généralisée de l'homme,
Research Institute for Languages and Cultures of Asia and Africa (ILCAA),
Tokyo University of Foreign Studies

緒 言

総合人間学研究は、AA研の共同研究プロジェクトとして、またAA研とフランス人間科学館との共同研究として、二期（2004-2006；2007-2009）にわたって遂行されてきた。

本年度、我々は二つの悲報に接することとなった。本プロジェクトの熱心な推進者であり、本誌の編集委員でもあった二人の卓越した研究者、日高敏隆教授（2009年11月23日逝去）と大塚和夫教授（同4月29日逝去）のご逝去である。

日高敏隆先生は、第1回総合人間学国際シンポジウム（2005年3月）において「動物としての人間 — 動物行動学の視点から」と題して、その後の総合人間学研究の方向性を決する重要な講演をして頂いて以来、今春に体調を崩されるまで、本プロジェクトの研究会、シンポジウムを通じて唯ひとり皆勤の共同研究員として、第4回シンポジウム（2007年12月）においては2回目のご講演「動物における「理解」」を頂くなど、一貫して助力と助言を賜ってきた。先生は科学の本質と人間の本性とを明確にお示し下さった。総合人間学が、途中頓挫することなく協道に逸れることもなく、今日ここまで至り得たのは、まったく先生の指針のおかげである。

大塚和夫先生も助力を惜しまれなかった。AA研所長という激戦に就いておられながら、第4回シンポジウムではご講演を引き受けて下さり、イスラームの知の寛容と開放性を知らしめて下さった。「イスラーム的知」をめぐる4本の補助線」（2007年12月・本誌第4巻pp. 49-54）がそれである。いま振り返れば、知の寛容と開放性とは、まさに先生の人柄そのものでもあったと思われる。

これら二人の優れた知者の声は、明確な指針を示すもの、温かく見護るものとして、我々のもとに今後も長く留まることであろう。ここにお二人のご冥福を謹んでお祈り申し上げ、本巻をお二方に捧げることをお許し願いたい。

本巻は、Michael WITZEL, Jean-Louis DESSALLES, Dominique LESTEL各氏および中谷の論文とYoshiro IMAEDA氏の短信を掲載する。これらの論文、短信は、第5回シンポジウム（WITZEL氏、IMAEDA氏）、第2回パリ・ワークショップ（DESSALLES）、および共同研究（LESTEL氏、中谷）の産物である。

本巻はまた、第1回及び第2回パリ・ワークショップ（2008年3月及び2009年4月）の趣意書とプログラム、及び第5回総合人間学シンポジウム（2009年1月）の報告を含んでいる。

6年来構築を試みてきた総合人間学は徐々に姿を現し始めた。その緩やかではあるが着実な発展の経過は、総合人間学ウェブ・サイト<http://www.classics.jp/GSH/>でご覧頂くことができる。現在の第2期3年計画は本年3月末で終了する。さらに2年間、第3期（2010年4月～2012年3月）計画を続行し、その成果を収集してフランスと日本における学術出版と商業出版として刊行することを準備している。ご協力を衷心より願うしだいである。

東京外国語大学アジア・アフリカ言語文化研究所共同研究プロジェクト
「総合人間学の構築」主査
中谷英明
2010年1月19日

仏教と西洋との出会い

今 枝 由 郎

フランス国立科学研究機構 (CNRS) 研究ディレクター

元ブータン国立図書館顧問

20世紀に入ってからヨーロッパ人にとってフランスにおける仏教の伝播には目覚ましいものがある。それ以前には、西洋は仏教と直接触れることがなく、仏教にかんする正しい情報・理解は少なく、むしろ誤った情報、誤解、偏見の方が多かったといえる。それが、20世紀後半になり、アジアからの仏教徒・仏教僧の移住・訪問が増えると同時に、ヨーロッパ人が仏教圏に赴くことも多くなり、その結果生きた精神伝統としての仏教の理解が深まっている。現在「ルモンド」紙の宗教分野 (Le monde des religions) の編集長であるフレデリック・ルノワール (Frédéric Lenoir) 氏は、この間の経過を古代まで遡って体系的に鳥瞰し、フランスにおける仏教の現状を調査し、その成果を『フランスの仏教』 (Le bouddhisme en France. 1999, Paris: Fayard) と『仏教と西洋との出会い』 (Le bouddhisme en France. 1999, Paris: Fayard. 筆者による日本語訳が、同題で2009年にトランスビューから出版予定) の2冊で公表している。

彼の調査によれば、仏教の中で、フランス人にもっとも高く評価されているのは、唯一神といった絶対的な存在を認めず、教条主義的ではなく、根本的に平和的、合理的かつプラグマティックであり、人々を結びつけ、きずなを作り出す傾向がある、という点である。それは、20世紀最大の科学者の一人であるアルベール・アインシュタイン (1879-1955) の「仏教は、近代科学と両立可能な唯一の宗教である」という言葉に、よく伺える。

こうして、歴史的にキリスト教をその精神的バックボーンに持った西洋に、仏教という新た

な異質な精神伝統が伝播することによって、西洋自らの伝統的宗教、精神性に対する認識に変化が起きつつある。この変化の具体的な内容には立ち入らなかったが、慧眼にもその重要性を認識したイギリスの歴史家アルノルド・トインビー (1889-1975) は、「仏教と西欧の出会い、20世紀のもっとも有意義な出来事である」と述べた。

フレデリック・ルノワールは、『フランスの仏教』を次の言葉で結んでいる。

「キリスト教と仏教との混合といった純粹に宗教的問題や、西洋の仏教への改宗というまず起こりそうもない仮説はさておき、彼我の出会いとはとりわけ、長い歴史の中で、人類学的、文明論的な次元で根本的な影響力を持つように筆者には思われる。これまで、西洋の技術的な理性が唯一、勝ち誇り、近代はそれに屈服したかのように見えていた。しかし、まさしくそのただ中であって、仏教と西洋の出会いは、脳の左半球に相当する論理的、抽象的、分析的な極と、右半球に相当する類推的、直観的、総合的な極という、人間の脳の二極化にその基盤があると思われる個人の本質的なふたつの極を、接近させるために役立っている。人間の持つさまざまな異なる極を対立させ分割するのではなく、識別してまとめるという、仏教を経由して着実に西洋に甦りつつある合理性への、包括的なアプローチについては、すでに言及した。世界へのはたらきかけと、自我へのはたらきかけ、これらふたつはまた、脳の機能のどちらか一方に優位を置くことに由来するものと思われ、それが、まったく異なるふたつの文明の類型を生むこと

にもなったが、このふたつの平衡を取り戻す必要がある。東洋が今日、人権革命、社会的正義への関心、民主主義の理念、大河をせき止めることから医学の驚異的な進歩にいたるまで、世界をよりよく制御し人間に恩恵をもたらすものへと変える端緒となりうる実験科学—原子爆弾は例外として—といった、数々の西洋からの恩恵を受けていることは否定できない。一方、西洋は仏教のおかげで、複数の現象の相互依存に関するきわめて的確な哲学および、なによりも、主体と内面性にかかわる真の科学と見なしうる、人間の精神とその機能についての洞察を発見した。

人間の精神構造に内在するふたつの傾向の均衡、それはつねに不安定であるけれども、つねに不可欠なもので、今後の地球規模の新たな文明の調和と、その成員である個人の幸福とは、大部分はこの均衡の上にこそ成り立つものではないであろうか」

さらに、日本語版への加筆で、著者は仏教と西洋の21世紀における出会いの意義を、こう述べている。

「文明間の衝突というサミュエル・ハンチンソンの説を裏付けるかのような、あの二〇〇一年九月一日の同時多発テロの後にあっては、この仏教と西洋との出会いこそ、アジア文明と西洋文明が近づくために不可欠の要素となりうるということを付け加えておきたい。キリスト教とイスラム教は、イスラム過激主義アル・カイダとG. W. ブッシュ政権の双方によって政争の具とされ、今や異なる文化を持つ人々の溝

を深めるために使われているのに対して、仏教とユダヤ＝キリスト教との間にはますます多くの橋が架けられ、他者の理解とみのり多い文化交流のために役立っている。世界平和の達成は、こうした他者、なかんずく、諸民族のアイデンティティに決定的な役割を果たしているその宗教についての知識・理解にかかっているところが大きい。

西洋人は数百年がかりで仏教を発見し、それにまつわる多くの偏見を徐々に克服するにいたった。今では仏教は西洋の風景の一部となり、ますます多くの西洋人がアジアに対して肯定的な関心を持つのに貢献している。事実、本来的にあまりにも不寛容な宗教的排他主義に傾きがちな一神教の場合には、不幸にも分割し支配するという性向が見られるが、ダルマ〔仏法〕はその根本的に平和的、合理的かつプラグマティックな性格ゆえに、むしろ人々を結びつけずなを作り出す傾向が「本来」ある。これからの長い歴史の中で、仏教と西洋との出会いがもたらす果実のひとつは、数々の一神教に憐れみとそのメッセージの中心であるということを感じ起こさせることにより、その非妥協的な面を弱め、やわらげることであろう。ブッダのほほえみは、グローバリゼーションという挑戦を克服するためにわたくしたちの世界が大いに必要としている、この精神的なやわらぎの証である」

こうした仏教との接触による西洋の認識の変化が、21世紀のよりよい地球共同体の実現に寄与するところは非常に大きいであろう。

APERÇU ET PROGRAMME DU PREMIER PARIS COLLOQUE SUR SGH
«ÉCOLOGIE DES TRANSFERTS ÉPISTÉMIQUES DANS LA
CONSTITUTION D'UNE HISTOIRE DE L'HUMANITÉ»

Colloque sur la science généralisée de l'homme organisé sous la convention de coopération scientifique entre ILCAA et MSH.

25-26 mars 2008, Maison des Science de l'Homme (Paris).

Hideaki NAKATANI (ILCAA/TUFS) & Dominique LESTEL (ENS)

Une question qui se trouve au cœur du projet d'une Histoire Générale de l'Humanité est celle de savoir comment des spécialistes de disciplines aussi différentes que les neurosciences ou l'histoire des religions peuvent coopérer ensemble pour produire un savoir qui relève de la conjonction de leurs connaissances respectives et comment le spécialiste d'une discipline peut « identifier » le savoir de collègues de disciplines très éloignées de la sienne et en donner une interprétation qui lui permet de l'assimiler dans sa propre pratique de recherche.

Le problème rencontré est moins celui de la transdisciplinarité, de la multidisciplinarité ou de l'interdisciplinarité que celui d'une véritable *écologie des transferts de savoirs* – aussi bien d'une discipline à une autre, que d'une culture à une autre ou même d'une période historique à une autre.

Cette écologie des transferts épistémiques doit de surcroît se doubler d'une visibilité mutuelle des pratiques (en particulier de laboratoire, de terrain ou d'archives) qui conduit à la production des savoirs concernés.

Elle doit enfin être consciente des savoirs innovatifs qui se développent en marge des paradigmes dominants et mettre en place des procédures d'évaluation qui tiennent compte des principaux experts des domaines concernés mais

ne s'y réduisent pas. Tout champ d'expertise fait l'objet de stratégies de pouvoir des spécialistes concernés. Cette politique épistémique ne concerne pas le chercheur extérieur au domaine (il ne cherche lui-même à y occuper aucune position), mais doit le préoccuper au plus haut point (les travaux pour lui les plus intéressants d'un domaine sont peut-être occultés ou sous évalués pour des raisons qui n'ont rien à voir avec leur valeur intrinsèque).

En fin de compte, ce qui est en jeu est de savoir comment un spécialiste peut s'approprier efficacement le savoir d'un spécialiste d'une autre discipline de façon à la fois créative, méthodologiquement rigoureuse et politiquement prudente. L'objectif de ce symposium, en d'autres termes, est donc de poser pour la première fois les bases d'une véritable écologie fonctionnelle des appropriations épistémiques, et de penser ce phénomène à partir du projet d'une Histoire Générale de l'Humanité – biologique et culturelle.

Pour organiser ce colloque à Paris, nous avons bénéficié d'une subvention de la part du Japan International Cultural Exchange Foundation (Président: Tsutomu SAKUTA, Tokyo, Japon). Nous y manifestons toute notre gratitude.

(2008/2/1)

第1回総合人間学パリ・ワークショップ 「人類史構想のための知識伝達の生態学」の概要

2008年3月25日～26日・パリ人間科学館

中谷英明 (AA研)・ドミニク・レステル (パリ高等師範学校)

総合人類史構想プロジェクトにおいて現れる一つの問題は、ニューロサイエンスから宗教学に至る掛け離れた領域の専門家がどのようにして共同して互いの知を融合した一つの知を創出することができるか、いかにして異なる領域の知を確認し、自分の研究にそれを持ち込んでそこに溶け込ませられるような解釈を与えるか、という問題である。

そこで課される課題は、領域横断、領域複合、あるいは領域間連携という課題であるよりも、一つの領域から他の領域、一つの文化から他の文化、あるいは一つの歴史時代から別の歴史時代への「知の伝達についての真の生態学」なのである。

その上、この認識伝達の生態学は、その知の創出をもたらす実践項目(とりわけ実験、フィールド、文書)が、互いによく理解されている必要がある。

最後に、この生態学は、現在支配的なパラダイムの周縁で勃興する新しい知に敏感に反応するのであって、その領域の主要な専門家の意見に依存しそれを評価するだけに留まることはない。あらゆる事象についての評価は、その領域

の専門家の権力戦略の対象である。評価は、領域外の研究者に関わるものではない(領域外の研究者はそこに立ち入ることはない)が、しかし最重要課題において彼の関心を引くものでなければならぬ(彼にとって最も興味ある仕事は、それ自身に内在する価値と関係なく、隠蔽されたり、過小評価されたりしているかも知れない)。

要するに、重要なことは、いかにして一つの領域の専門家が他の領域の専門家の知識を、創造的に、方法論的に厳格に、かつ慎重な仕方、効果的に我が物とすることができるかを問うことである。言い換えればこのワークショップの目標は、認識獲得の真の機能的生態学の基盤を初めて構築することであり、生物学的、文化的な総合人類史構想の計画に沿って、これを考察することである。

なお、本ワークショップを開催するにあたり、国際文化交流事業財団(東京・作田勉理事長)から研究者派遣助成を受けた。ここに記して謝意を表する。

(2008年2月1日)

Ecology of Epistemic Transfers in the Design of a History of Humanity

**First Seminar on the Generalized Science of Humanity
organized under the Convention of Scientific Cooperation between ILCAA & MSH.**

Maison des Sciences de l'Homme
(MSH)
54 bd Raspail, 75006 Paris

Research Institute for Languages and
Cultures of Asia and Africa (ILCAA)
Asahicho, Fuchu, Tokyo, Japan

Hideaki Nakatani (ILCAA/TUFS) & Dominique Lestel (ENS)

Room 214, Maison des Sciences de l'Homme

Tuesday 25 March

**10:00 H. Nakatani (Tokyo University of Foreign Studies)
Corporal Activities and Contact with Nature proposed by Buddha**

**11:00 D.Lestel (Ecole Normale Supérieure, Paris)
What is an Ecology of Epistemic Transfers ?**

**12:00 H. Ichikawa (University of Tokyo)
Modern Significance of the Traditional Commonsense:
Case study of Judaism and Buddhism**

Lunch

**14:30 P.Picq (Collège de France)
Reconstructing Human Origins after the Ecology of Human Evolution**

**15:30 T.Maruyana (Nanzan University, Nagoya)
Situation Focus Character of the Japanese Language
--- in Comparison with Major European Languages**

16:30 Discussion

Wednesday 26 March

**10:00 J.P.Changeux (Institut Pasteur, France)
Genetic and Epigenetic Developments of Human Neural Networks**

**11:00 J.L.Dessalles (Ecole Nationale Supérieure des Télécommunications, Paris)
What is It That People call Knowledge?**

12:00 Discussion

Lunch

**14:30 J.C.Galey (Ecole des Hautes Etudes en Sciences Sociales, Paris)
A Methodological Reconsideration on the Generalized Science of Humanity**

15:30 General discussion

第5回総合人間学国際シンポジウム 「意識を作る・認識を変える」について

2009年1月24日・日仏会館

中 谷 英 明

「総合人間学」は4年前より、脳科学、動物行動学、人類学、心理学、哲学、文学、古典学などの研究者の連携によって、「いま必要な知」を求め、今回のシンポジウムに至るまでに、次のテーマの4回のシンポジウムを開催しました。

1. 「人にとって豊かな生とは何か」2005年
2. 「諸文明から未来世界を構想する」2006年
3. 「科学技術と人間らしさ」2007年
4. 「開放知としての科学と宗教」2007年

「人の幸せ」から始め、「文明」、「開放知」へと徐々に焦点を絞ってきた訳ですが、去る3月には、さらに対象を限定して、人と人との知的交流、とりわけ異なる領域の研究者間における知識交換のあり方を検討することを目的として、*Ecology of Epistemic Transfers in the Design of a History of Humanity*と題する二日間のワークショップをMaison des Sciences de l'Homme (パリ)において実施しました。そして彼我の知的状況の大きな隔たりを知り、この懸隔を埋めて相互理解を実現し、何が人間にとって望ましい知のあり方かを検討するには、個人と社会の両面における「ヒトの意識の形成と認識の転換」に関して理解を深める必要があると考えた次第です。

文明間または宗教間対話にせよ、科学の異領域間知識交換にせよ、あるいは個人間の相互理解にせよ、自分の立場をいったん解消して相手の立場を思い遣るという開かれた姿勢が不可欠でしょう。一般に、現在の自分の狭量な意識を超克してより広い、客観的な立場に立つために

は認識の転換が必要です。しかし、これが想像以上の難事であり、ヒトの意識の形成と認識の転換に関する深い洞察と、場合によっては数十年の修習が必要であることは、未だ十分に理解されていないのではないのでしょうか。

環世界に関する認識（世界観）は、生物として地球上に発生して以来の経験を蓄積するヒトの遺伝子として継承され、また受精以来のepigeneticな環境の影響を受け、さらには主として言語によって構築される文明伝統を継承して（その中には成人以降のapogeneticな精神形成も含まれる）、形成されると考えられます。このような過程を経て形成された世界観としての意識は、個人と社会とにおいていかなるあり方をしており、その転換はどのようなプロセスを経て可能となるか、を再考したいと思います。

「認識の転換」は、人が何かに深く感動して新しい「意識」を獲得すること、そして究極的には、それによって自らの新しい「生き方」を発見することにほかなりません。そしてこれがなければ、相互理解も、深い安心や満足も、ありえないのではないのでしょうか。

今回のシンポジウムでは、このような人の意識の形成とその転換について、東西の文明における考察を振り返り、また最新の脳科学の知見を参照しつつ考えて見たいと思います。

最後に、もし可能ならば、どのような方向への認識の転換がいま必要であり、未来の地球社会にとって望ましいのかを考えたいと望んでいます。

(2010年1月3日)

第5回 総合人間学国際シンポジウム

意識を作る・認識を変える — よりよい地球共同体を求めて —

主 催 東京外国語大学 アジア・アフリカ言語文化研究所・日仏東洋学会
後 援 日仏会館
日 時 平成 21 年 1 月 24 日 (土) 10:30 ~ 17:30
場 所 日仏会館 〒150-0013 東京都渋谷区恵比寿 3-9-25 TEL. 03-5421-7641

開会の辞 東京外国語大学副学長 宮崎恒二

【インド仏教】

ブッダによる認識の転換

東京外国語大学アジア・アフリカ言語文化研究所教授 中谷英明

【文学という経験】

ドストエフスキーと父殺し

東京外国語大学学長 亀山郁夫

【西欧と仏教】

西欧と仏教の出会い

CNRS (フランス) 研究ディレクター 今枝由郎

【シャーマニズム】

Change of Consciousness in Siberian and South Eurasian Shamanisms.

シベリアおよび南ユーラシアのシャーマンにおける意識の変性 (通訳付き)

ハーバード大学教授 Michael WITZEL

【精神医学】

夢語りが神話を作る

京都大学総合人間学部教授 新宮一成

【脳科学】

こころの形成の脳科学

新潟大学統合脳研究センター長 中田 力

パネルディスカッション「意識を作り、認識を変える力」

モデレーター：前総合地球環境学研究所長 日高敏隆 (動物行動学)

パネリスト：早稲田大学教授 森由利亜 (中国思想学) 今枝由郎 新宮一成

亀山郁夫 中田 力 中谷英明

閉会の辞 日仏東洋学会会長 興膳 宏

ワインとカナッペ

The 5th International Symposium on Generalized Science of Humanity

Forming Consciousness, Changing Cognition For Our Better Global Community

24 January 2009, Maison Franco-Japonaise (Ebisu, Tokyo).

Cosponsored by :

- Research Institute for Languages and Cultures of Asia and Africa (ILCAA), Tokyo University of Foreign Studies (TUFS).
- Société Franco-Japonaise des Etudes Orientales (SoFJEO), Japan.

Supported by the Maison Franco-Japonais (Tokyo).

10:30 Welcome Remarks by Koji MIYAZAKI, Vice-president, TUFS.

10:35 Hideaki NAKATANI, Professor, ILCAA, TUFS
Transformation of Cognition by the Buddha.

11:20 Ikuo KAMEYAMA, President, TUFS
The Patricide for Dostoevsky.

13:00 Yoshiro IMAEDA, Director of Research, CNRS (France)
The Encounter of Europe with the Buddhism.

13:45 Michael WITZEL, Professor, Harvard University; Invited Professor at ILCAA, TUFS
Change of Consciousness in Siberian and South Eurasian Shamanisms.

14:45 Kazushige SHINGU, Professor, Kyoto University
Creation of Myth through Dream Telling.

15:30 Tsutomu NAKADA, Director, Center for Integrated Human Brain Science, Niigata Univer.
Brain Science of the Formation of Mind.

16:30 Panel Discussion :

Formation of Consciousness, Change of Cognition

Moderator: Toshitaka HIDAKA, Former Director-General, Research Institute for Humanity and Nature (Kyoto).

Panelists: Yuria MORI, Professor, Waseda University, I. KAMEYAMA, Y. IMAEDA, S. SHINGU, T. NAKADA, H. NAKATANI.

17:30 Closing Address by Hiroshi KOZEN, President, SoFJEO

17:35 Wine & Canapes

- Registration (free of charge) at ILCAA, Tel. 042-330-5603 or <http://www.classics.jp/GSH/>
- Registration available for the first two hundred registrants.
- For Further Information:
 - Research Institute for Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies, 3-11-1 Asahi-cho, Fuchu-Shi, Tokyo. 183-8534, Japan
 - Tel. +81-42-330-5603

PROSPECTUS FOR THE SECOND PARIS WORKSHOP
“FORMATION OF CONSCIOUSNESS,
CHANGE OF COGNITION”

A Workshop on the Generalized Science of Humanity,
organized under the Convention of Scientific Cooperation ILCAA - MSH.
2-3 April 2009, Maison des Sciences de l'Homme (Paris)

Hideaki NAKATANI, (ILCAA)

The Generalized Science of Humanity (GSH) was conceived for the first time in March 2004 in order to make good for the lack of a scientific field that should provide an integrated view of humankind and its surrounding world. Since then, the project named ‘Constitution of the Generalized Science of Humanity’ organized by ILCAA has been elaborating the new field with the collaboration of specialists from diverse disciplines, such as neuroscience, ethology, anthropology, psychology, philosophy, philology, etc. In carrying out the research, the project has concluded a Convention of Scientific Cooperation between ILCAA and MSH (2005-2009).

The GSH project has organized the following five symposia in Tokyo and published four volumes of the Generalized Science of Humanity (Tokyo, 2006 – 2008) which report its activities and contain articles as results of research activities.¹

1. *Peaceful World and Enriching Human Lives - The Pursuit of a Generalized Science of Humanity*. Tokyo, 21 March 2005.
2. *Planning the Future World with the Diversity of Civilizations*. Tokyo, 22-23 October 2005.
3. *High Technology and Human Nature*. Tokyo, 13 January 2007.
4. *Science and Religions as Open Intelligence*. To-

kyo, 10-11 December 2007.

5. *Formation of Consciousness, Change of Cognition - For Our Better Global Community*. Tokyo, 24 January 2009.

The theme of the symposia in Tokyo has changed from *well-being in the whole world to consciousness*, through *civilizations, high technology and religions*. That is to say, from a theme of wider social range to that of narrower and cognitive ones.

Meanwhile, the first workshop entitled *Ecology of Epistemic Transfers in the Design of a History of Humanity* was held at Paris in March 2008. Following the above mentioned cognitive context, it has focused on the question of epistemic transfers, because of the growing necessity to constitute a meaningful scientific synthesis in order to reform each of the schemes of our scientific cognition.

In this two day workshop, we have noticed a certain divergence of the intellectual climate of France and of Japan. It was not easy for the Japanese scholars to understand the French situation where scholars feel some difficulty in teaching the evolutionist view of biology or do not succeed in creating any chair of ethology in the university, while the feeling of integration of the Japanese with nature, or the impossibility or eventually un-

1 On the details of the GSH project, see the web site: <http://www.classics.jp/GSH/>
Please click the button ‘English/Français’ on the top page to read the English/French version.

willingness for the Japanese to form an individual identity, both communal and personal, should be incomprehensible for the French.

This unexpected confrontation has urged us to reconsider the biological, historical, social and personal conditions concerning the formation of mind and of its transformation in human beings. It would be necessary to dissolve beforehand one's own standpoint in order to realize mutual understanding between civilizations, religions, scholars of different disciplines or even individuals.

In more general sense, the dissolution of one's own point of view would be necessary in good many phases of our life, for example, for someone in psychic distress or for a scholar who hit a brick wall in his research. To surmount our own cognitive wall is, thus, a key point not only for a better mutual understanding, but also for self-help, which might bring about profound peace of mind or scientific discovery, etc. In brief, it may be the key to our new way of life with a feeling of full satisfaction.

How, then, can we dissolve our own rather limited and firmly fixed cognitive position? Our own view concerning the self and the surrounding

world seems to be formed and influenced 1) by *genetic* conditions inherited from the living beings ever since they appeared on the Earth, 2) by prenatal, familial and social *epigenetic* conditions in the embryo and in childhood, and 3) by '*apogenetic*' conditions in adulthood.²

It would not, therefore, be an easy task to change our consciousness ('*bon sens*') formed in such complex and long process. In these conditions, it is a desideratum to reconsider not only the history of humankind, but also the biological human conditions including human capacity of language, from this point of view. In fact, from the oldest times, shamans tried to change their own mind and those of their clients; the Buddha, Lao-tse and many other men of religion taught a way by which one will attain profound spiritual peace. We may find out many other ways of changing our mind in the wisdom of various civilizations. Neuroscience or psychology will contribute toward better understanding of the neural or psychological foundations of these phenomena.

Our second workshop will concentrate our effort on this issue: "*Formation of consciousness, change of cognition.*"

(2009/3/21)

2 Compare the formation of consciousness in one person with that of a language: The language learned after a certain age (about 10 or 12 years old) cannot become a mother tongue. We might expect the same situation for the cultural formation of mind set and socialization.

第2回総合人間学パリ・ワークショップ 「意識の形成・認識の転換」の展望

2009年4月2日～3日・パリ人間科学館

中 谷 英 明

「総合人間学」は、脳科学、動物行動学、人類学、心理学、哲学、文学、古典学などの研究者の連携によって、「いま必要な知」を求め、次の5回のシンポジウムを開催した。

1. 「人にとって豊かな生とは何か」2005年
2. 「諸文明から未来世界を構想する」2006年
3. 「科学技術と人間らしさ」2007年
4. 「開放知としての科学と宗教」2007年
5. 「意識を作る・認識を変える」2009年

第1回から第4回まで、「人の幸せ」から始め、「文明」、「開放知」へと徐々に焦点を絞ってきたが、昨年3月には、さらに対象を限定して「知識伝達」を主題として、「人類史構想のための知識伝達の生態学」という二日間のワークショップを人間科学館（パリ）において実施した。ここで彼我の知的状況の大きな隔たりが判明し¹、より根本的に、「ヒトの意識の形成と転換」に関する理解を深める必要があるという結論に達した。

文明間または宗教間対話にせよ、科学の異領域間知識交換にせよ、あるいは個人間の相互理解にせよ、自分の立場をいったん解消して相手の立場を思い遣るという開かれた姿勢が不可欠である。自分の狭量さを超えてより広い客観的立場に立つには、認識の転換が必要である。しかしこれが難事であり、ヒトの意識に関する深

い洞察と、場合によっては数十年の訓練が必要であることは、未だ十分に理解されていないと言える。

環世界に関する認識（世界観）は、生物として地球上に発生して以来の経験を蓄積するヒトの遺伝子として継承され、受精以来の胎児・幼児期環境の影響を受け、さらには文明伝統を継承する成人期の精神形成を経て形成される。こうして形成された世界観の個人的、社会的あり方とその転換が第5回シンポジウムの主題であった。

「認識の転換」は、人が何かに深く感動して新しい「意識」を獲得すること、そして自らの新しい「生き方」を発見することにほかならない。相互理解のためのみならず、深い悲嘆の底にいる人が立ち直って安心を獲得するためにも、壁にぶち当たった研究者が視点を転換して新しい発見をするためにも、認識の転換が必要であらう。

1月の東京シンポジウムを受けて、同じ主題でパリでフランスの研究者とともに、この意識の形成と転換について、さらに深く考察したい。さらには、どのような方向への認識の転換がいま必要であり、未来の地球社会にとって望ましいのかも考えたい。

(2009年3月21日)

1 例えば、我々日本人にとってコレージュ・ド・フランスのP.ピック氏がフランスにおける進化論の講義に対する抵抗を語ったり、フランスに動物行動学の講座が存在しないことを知った事は大きな驚きであった。逆にフランス人研究者にとっては、日本における個人的・共同体的アイデンティティー確立の遅れ、あるいは人間を自然の一部と見、自然との間に対立を認めたり、まして支配の対象と見たりしない態度は理解し難いものであったようである。

Formation of Consciousness, Change of Cognition

**Second Seminar on the Generalized Science of Humanity
organized under the Convention of Scientific Cooperation between ILCAA & MSH.**

**Maison des Sciences de l'Homme
(MSH)
54 bd Raspail, 75006 Paris**

**Research Institute for Languages and
Cultures of Asia and Africa (ILCAA)
Asahicho, Fuchu, Tokyo, Japan**

Hideaki Nakatani (ILCAA/TUFS) & Jean-Louis Dessalles (Paris Tech)

Room 214, Maison des Sciences de l'Homme, 2 & 3 April 2009.

Thursday 2 April

**9:00 Hideaki Nakatani (ILCAA, Tokyo University of Foreign Studies)
Cognition with Unconscious Predilection according to Ancient Indians**

**10:00 Jean-Louis Dessalles (Paris Tech)
Mutual Understanding through Sharing Cognitive Dissonance**

**11:15 Kazushige Shingu (Kyoto University)
The Creation of Another World: From Dream to Reality**

Lunch

**14:00 Toru Maruyana (Nanzan University, Nagoya)
Emergence of the Concept of "ego" in the Grammatical Structure
of the Languages of Western Europe - Afterthoughts**

**15:00 Anne Reboul (CNRS)
Language: of Freedom and Human Bondage**

**16:15 Hiroshi Ichikawa (University of Tokyo)
Is The Buddhist Enlightenment Regarded as Philosophical or Religious?
- Religious Education for Enlightenment in Early Modern Japan -**

17:15 General Discussions (to 18:00)

Friday 3 April

**9:00 François Taddei (INSERM, Paris)
Consciousness from View Point of Geneticists and Evolutionary Biologists**

**10:00 Tsutomu Nakada (Science Council of Japan, FAAN, Niigata University)
Brain Science of the Mind - Brain as a Complex System -**

11:15 General Discussions

13:00 Closing of the workshop

ÉBAUCHE D'UNE SCIENCE GÉNÉRALISÉE DE L'HOMME

Hideaki NAKATANI

Institut de recherche des langues et cultures de l'Asie et Afrique (ILCAA),

Université Tokyo des Etudes Etrangères, Tokyo, Japon.

Depuis cinq ans, dans le cadre d'une collaboration avec la MSH¹, nous cherchons à établir comme nouveau domaine des sciences humaines et sociales une science généralisée de l'homme (=SGH). Voici ses caractéristiques, telles qu'elles se sont manifestées au cours de l'élaboration déjà entamée, même si nous sommes encore à la naissance du processus de création.

La SGH est, comme les autres sciences humaines et sociales, une science, en ce sens qu'elle est soumise tant à la logique qu'à la démonstration par les faits. Mais elle diverge des autres sciences humaines et sociales actuellement établies, ou couramment répandues, sur les points suivants :

(1) Utilité et intégralité civilisationnelle.

Quelle serait une meilleure vie pour l'être humain ? Voilà la question que les hommes se sont incessamment posée sans doute depuis leur apparition sur terre. La SGH, comme certaines autres sciences, essaye d'y répondre, mais d'une manière unifiée et par une pratique plutôt que d'une manière parcellaire et simplement observatrice, en pariant sur l'efficacité des connaissances et de leur intégration.

La SGH s'appuie sur l'objectivité scientifique, puisqu'une connaissance fondée sur les faits est efficace et le plus souvent utile comme le montre la technologie moderne. Mais elle ne s'y enferme pas et s'intéresse également à l'application de connaissances dont le mécanisme n'est pas encore scientifiquement éclairci. Tel est le cas, par exemple, de l'intérêt qu'elle porte aux effets des activités chamanistes, rituelles ou religieuses en général. Il est plutôt naturel qu'un chamane énonce des faits qui semblent fantaisistes, que ce

soit consciemment ou non. Dans des doctrines religieuses aussi, on trouve de telles assertions scientifiquement inadmissibles, qu'il y a un paradis, un enfer ou un monde où vivent nos ancêtres, quelque part dans notre univers, ou qu'un tel est né d'une vierge ou par le côté de sa mère, etc. Ces religions ne sont pourtant pas inutiles si l'on considère qu'elles apportent un apaisement ou une énergie spirituelle aux croyants.

De ces phénomènes se sont occupées, il est vrai, l'anthropologie, la sociologie et les sciences des religions, etc. Mais ces disciplines présupposent toutes un critère tacitement fixé par l'échelle de valeurs du chercheur, à l'aune duquel l'utilité ou efficacité de ces phénomènes est évaluée. Or, les valeurs sont différentes d'un individu à l'autre, notamment dans notre monde globalisé, ce qui laisse, nous semble-t-il, l'évaluation en grande partie arbitraire.

Autrefois, c'était la fonction d'une religion ou d'une philosophie d'indiquer les valeurs standard

1 L'ILCAA et la MSH ont conclu, le 1^{er} juin 2005, une convention de coopération scientifique pour l'élaboration, dans une perspective interculturelle, d'une science générale et réunifiée de l'homme, tenant compte des apports des plus anciens aux plus contemporains (2005-2010).

aux individus du monde où elle était dominante. Tant que l'on était dans l'une des sphères civilisatrices shintoïstes, confucianistes, hindoues, islamiques, israélites ou chrétiennes, il existait des valeurs communément admises et pour ainsi dire 'universelles'. Dans le monde globalisé d'aujourd'hui, cependant, nous croisons constamment des positions différentes, religieuses et non-religieuses, y compris scientisme et nihilisme.

Du fait que les sciences humaines et sociales sont nées en Europe et que, encore aujourd'hui, la suprématie occidentale s'y maintient, nous constatons que les valeurs qui définissent ce 'critère' de l'évaluation sont, dans la plupart des cas, occidentales. Pour que le critère soit universel, il faudrait intégrer les valeurs des mondes mentionnés plus haut et d'autres.

C'est ainsi que l'intégralité civilisationnelle de nos connaissances est à rechercher dans la SGH, en accordant une importance égale et à la validité et à l'utilité des phénomènes, utilité évaluée dans le cadre le plus élargi.

(2) Intégralité biologique.

Si l'on recherche une intégralité des connaissances, il faut, à côté de l'intégration civilisationnelle, assurer également l'intégralité biologique. Les sentiments qui arbitrent nos jugements de valeurs semblent formés selon trois étapes ou phases : les phases génétique, épigénétique (de la conception à l'âge environ de douze ans) et apogénétique (après environ douze ans), chaque phase servant de fondement aux suivantes.

La phase génétique, parce que la formation de notre cerveau est génétiquement programmée. Par exemple, il est connu que seuls les oiseaux et les humains ont développé particulièrement leurs cervelets qui contrôlent, par un système complexe (non linéaire), leurs actions : vol pour les oiseaux et marche bipède pour les humains.²

C'est ce système complexe du contrôle des mouvements qui permettrait à ces deux espèces seules de prononcer des mots. D'autre part, nous savons, depuis le fameux cas de Phineas Gage, que la perte accidentelle du cortex préfrontal, partie cérébrale la plus récemment développée chez les humains, n'entraîne aucun trouble du langage. Ces deux faits conjoints pourraient suggérer que la capacité du langage aurait des racines plus anciennes que le langage proprement dit, vieux de cent ou deux cents mille ans, et pourrait avoir des prémices au début de la bipédie. La bipédie humaine, contrôlée d'une manière non linéaire depuis au moins un ou deux millions d'années, permet d'épargner 40% d'énergie de déplacement par rapport aux bipédies des autres animaux. Il nous semble donc que la capacité de langage se rattache aux fonctions anciennes de cognition et d'expression, ce qui expliquerait que la plupart des religions, surtout chamanistes et ritualistes, accordent une importance particulière au rôle moteur de la prononciation des mots ou d'analogues. Si nous voulons savoir quelle serait une meilleure vie pour les êtres humains, nous pouvons par exemple examiner de près l'influence des paroles et des chants sur le sentiment de bonheur.

Du cas de Phineas Gage, nous pourrions tirer une autre suggestion. Son cas et d'autres montrent qu'une des fonctions essentielles du cortex préfrontal est de contrôler notre prévenance et responsabilité envers les autres.³ Si nous pouvons considérer que les êtres vivants sont heureux quand ils vivent en conformité avec leur nature, formée par l'évolution, il faudrait chercher notre bonheur dans ces directions.

Pour ce qui est de la phase épigénétique, l'apprentissage d'une langue étrangère offre un cas significatif. Une langue acquise avant l'âge d'à peu près douze ans peut être parfaitement maîtrisée, alors que celle apprise après cet âge ne le

2 Cf. Tsutomu NAKADA, *Homo Sapiens defined by Brain Science*, in *Generalized Science of Humanity*, Vol. 2, pp.9-16. Tokyo, March 2007.

3 Fuster, J. (2008). *The prefrontal cortex*. London, UK: Elsevier.

peut pas. Nous pouvons penser à une procédure similaire pour ce qui est de la formation de nos consciences culturelles. C'est sans aucun doute par ce fait qu'il est très difficile de s'entendre entre personnes de formations culturelles différentes. Dialoguer entre des religions ou des civilisations différentes serait au moins aussi difficile qu'entre personnes de langues maternelles différentes qui ne connaissent d'autre langue que la leur. Si nous tenons compte de ce fait, il apparaît normal de devoir attendre plusieurs dizaines d'années pour s'entendre entre cultures différentes, comme lorsque nous apprenons une langue étrangère que nous voulons parler assez couramment.

Pour prendre un autre exemple, il est très difficile de traiter les enfants victimes de sévices répétés et il est parfois impossible de les guérir quand ces mauvais traitements ont entraîné une déformation grave de certains réseaux neuronaux du cervelet.⁴ Nous devrions toujours avoir à l'esprit cet exemple extrême quand nous nous confrontons aux dialogues interculturels ou au problème des soldats-enfants.

Quant à la phase apogénétique, nous pouvons prendre comme exemple la vision du monde que les individus développent. D'après certains éthologues, les êtres vivants supérieurs essaient constamment de décoder leur environnement et quand ils comprennent ce qui se passe autour d'eux, ils en éprouvent de la satisfaction ou au moins de la tranquillité, alors qu'inversement quand ils n'arrivent pas à le comprendre, ils demeurent dans une inquiétude permanente. De la même manière les êtres humains, depuis qu'ils sont devenus homo sapiens sapiens,⁵ semblent vouloir posséder une vision du monde, telle

qu'une mythologie, qui leur rende le monde compréhensible. Cette représentation du monde est beaucoup plus complexe du fait de leur maîtrise du langage, il est vrai, mais elle nous semble posséder essentiellement la même fonction rassurante. L'étude des mythologies comparées montre que la plus ancienne remonterait il y a cent mille ans en Afrique.⁶ L'homme serait un animal qui vit toujours avec sa vision du monde, une conscience rassurante formée notamment dans sa période apogénétique en utilisant la capacité de langage, capacité elle-même enracinée dans et conditionnée par les deux phases précédentes du développement.

Il se peut que, dans les conditions actuelles, nous ayons besoins d'une vision ou de visions renouvelées qui seraient adaptées au monde globalisé et appropriées à la nature humaine.

(3) Réflexivité et collectivité du travail.

Nous sommes bien conscients des difficultés que nous rencontrerons pour nous assurer des deux intégralités, civilisationnelle et biologique. Comment accumuler les informations les plus positives et nouvelles et, en même temps, les plus importantes pour l'amélioration de la vie ?

Il est évident, premièrement, que nous devons procéder d'une manière rétroactive : Fixer d'abord le critère pour choisir des informations importantes et les accumuler selon ce critère. Ensuite, les examiner pour en former une synthèse. Puis réaménager le critère en fonction de la synthèse. Enfin, accumuler, de nouveau, les informations importantes selon ce nouveau critère. Ainsi de suite. Méthode classique, certes, mais rarement appliquée dans le domaine des scienc-

4 Cf. Steinlin (2007). "The cerebellum in cognitive processes: Supporting studies in children." *The Cerebellum* (6), 237-241.; Martin H. Teicher, Wounds that Time won't heal : The Neurobiology of Child Abuse. in *Cerebrum* (Dana Press), Vol.2, No.4, pp. 50-67; Fall 2000.

5 Sur le *homo sapiens idaltu*, une possible sous-espèce du homo sapiens, voir White, Tim D.; Asfaw, B.; DeGusta, D.; Gilbert, H.; Richards, G. D.; Suwa, G.; Howell, F. C. (2003), "Pleistocene Homo sapiens from Middle Awash, Ethiopia", *Nature* 423 (6491): 742-747, 2003. Nous ne savons pas s'ils parlaient une sorte de langage.

6 Cf. Michael WITZEL, Out of Africa : The long journey of the oldest tales of humankind, *Generalized Science of Humanities*, Vol. 1, pp.21-65. Tokyo, July 2006.

es humaines, parce qu'elle demande du temps et de la patience lorsqu'on l'applique à des concepts et des données qui touchent à l'être humain.

Deuxièmement, dans ces conditions, il est souhaitable, pour réaliser cette procédure de travail, de créer une plateforme de collaboration pour des chercheurs issus de tous les domaines scientifiques, capables d'intégrer notamment des études classiques, anthropologiques, sociologiques et philosophiques pour ce qui est de l'aspect civilisationnel, et d'autre part des études de neurosciences, éthologiques, psychiatriques et archéologiques pour ce qui est de l'intégralité biologique.

Les dialogues face à face sont seuls à même de produire le savoir conjuguant les connaissances respectives des spécialistes de disciplines différentes. Le spécialiste d'une discipline peut « identifier » le savoir de collègues de disciplines éloignées de la sienne et en donner une interprétation qui lui permet de l'assimiler dans sa propre pratique de recherche.⁷

La collaboration tant des chercheurs de diverses disciplines que des experts du monde politique, administratif ou des affaires facilitera la tâche de la SGH pour contribuer, par ses retombées, à changer la société.⁸

Ce travail en collectivité, si les contributeurs sont bien choisis, nous permettra d'accumuler rapidement ces informations positives et importantes pour que nous procédions par méthode réflexive et que nous parvenions à des résultats utiles tout en restant en phase par rapport aux changements prompts et fondamentaux de notre monde.

(4) La SGH en tant que pratique

La SGH peut aller encore plus loin. Il est no-

toire que des actes d'une personne peuvent transformer sa conscience. Par exemple, c'est à travers des actes mis en pratique que les sportifs, les ascètes ou adeptes religieux parviennent à modifier leur état émotionnel ou leur conscience. La SGH est non seulement toujours prête à écouter les descriptions de ces expériences données par les experts, comme celles qui sont décrites dans les études classiques, anthropologiques, sociologiques et autres. Mais elle n'hésitera pas, quand ce sera nécessaire, à demander une mise en pratique pour que certaines expériences ne soient pas seulement décrites de l'extérieur, mais soient vécues « à la première personne ». C'est ainsi que la SGH intègre en elle l'état de conscience ou les phénomènes introspectifs qui ne se produisent qu'après l'expérience. Elle pourrait avancer ses recherches avec cette conscience nouvellement acquise après l'expérience.

Parce qu'elle cherche à s'impliquer dans le changement social, la SGH s'intéresse notamment à l'éducation, aux traitements psychiatriques ou à la vie religieuse, dans la mesure où ces pratiques changent l'esprit des jeunes, des malades ou des pratiquants. Quant à l'éducation, elle pourrait non seulement fournir aux élèves ou aux étudiants les connaissances les plus essentielles comme culture générale, ainsi qu'un principe de réflexivité demandant une autocritique et une auto-organisation perpétuelles, mais aussi leur conseiller de faire des expériences par eux-mêmes pour changer leur propre mentalité.

Sur un plan plus général, une des contributions importantes de la SGH à la société serait de présenter au public les connaissances les plus importantes, obtenues non seulement par l'observation mais aussi par les pratiques, ainsi

7 Nous avons examiné ces conditions de transmission de connaissances au premier séminaire consacré à la SGH : *Ecologie des transferts épistémiques dans la constitution d'une Histoire de l'Humanité*, 25 et 26 mars 2007, MSH (Paris). Voir notre site web : <http://www.classics.jp/GSH/workshop>

8 Cf. l'article de JF Rischard (Banque Mondiale), op.cit n.7. François Taddei (INSERM, Paris) a donné, pour sa part, une communication sur ses activités d'éducation des jeunes : *Consciousness from View Point of Geneticists and Evolutionary Biologists* dans le second séminaire « *Formation of Consciousness, Change of Cognition* », MSH, Maison des Sciences de l'Homme, 2 & 3 avril 2009.

que leur synthèse, car ces connaissances sont peu connues ou connues pour la première fois, pour avoir été négligées ou ignorées du fait du cadre restreint dans lequel les sciences humaines ont été maintenues jusqu'à présent.

Une autre contribution serait de nature proprement scientifique : la SGH, en tant que nouvelle science globale, contribuerait à ré-articuler les concepts utilisés dans les différentes disciplines et à réformer significativement leur système sémantique.

La SGH n'est pas une science appliquée, dans la mesure où elle n'applique pas une théorie fixe. En se donnant pour méthode une procédure réflexive, elle accumule des connaissances importantes et propose des pratiques diversifiées. Avec ces connaissances, elle s'intéresse aussi aux solutions des problèmes pressants du monde d'aujourd'hui. Par exemple, Jean-François Rischard (ancien vice-président, Banque mondiale) a proposé, pour résoudre les vingt problèmes globaux les plus urgents, un comité international constitué d'experts qui évaluera et, quand c'est nécessaire, critiquera les politiques des gouvernements ou d'autres institutions privées, nationales ou internationales. Ce serait une solution réalisable et efficace, suffisamment rapide pour répondre à la vitesse de plus en plus grande avec laquelle les problèmes liés aux changements du monde contemporain se posent.⁹

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La SGH ne se contentera pas de constituer ces connaissances intégrées ; avec celles-ci, elle éla-

borera des stratégies pour réaliser nos meilleurs vœux. Elles cherchera, par exemple, des normes sociales ou des morales minima à observer par les gens de toutes les civilisations : la Déclaration universelle des droits de l'homme (1948) et le Pacte international relatif aux droits civils et politiques (1966), adoptés par l'Assemblée générale des Nations unies, ne suffiraient pas à remplir les conditions nécessaires pour ces normes culturellement universels.

Le développement d'une science généralisée de l'homme apparaît urgent, au moment où la mondialisation amène inévitablement les cultures à se côtoyer et à s'intriquer de manière accélérée. Face au risque d'accroissement des incompréhensions et de repli identitaire des cultures vers des doctrines figées, la SGH propose au contraire une « intégration des différences » qui sera en perpétuel amélioration et dans laquelle les différentes cultures et les différentes disciplines scientifiques pourront reconnaître leur contribution.

La SGH proposera, en plus, des chemins par lesquels les gens de chaque civilisation puissent trouver leurs propres sentiments de bonheur tout en s'accordant avec leurs conditions génétiques, épigénétiques et apogénétiques (culturelles).

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9 Cf. JF RISCHARD, Desperate Times Require Out-of-the-Box Solutions, *Generalized Science of Humanities*, Vol. 3, pp.7-13. Tokyo, Janvier 2008. Voir notre site web: <http://www.classics.jp/GSH/book/03.html>

総合人間学素描

中 谷 英 明

〔要 旨〕

東京外国語大学アジア・アフリカ言語文化研究所の共同研究プロジェクト「総合人間学の構築」は、五年来、フランスの人間科学館（パリ）と共同して、人文社会科学の新分野としての「総合人間学」の構築に努めてきた。未だ構築作業は続いているが、これまでに明らかとなった限りの、総合人間学の主要な特徴をここに記しておきたい。

総合人間学は、他の人文・社会科学と同じく、論理性と実証性に基づく点においては、科学であると言ってよいであろう。¹しかし現在確立し、広く世に行われている人文・社会科学とは、次の点において異なっていると考えられる。

(1) 有益性と文明的総合性

人にとってよりよい生とは何か。これは人類が地球上に現われて以来、絶えず自問してきた問いであろう。他の幾つかの科学と同様、総合人間学もこの問いを問う。ただし、知を断片に放置することなく総合を試み、またただ観察し記述するだけではなく、もろもろの知の有益性・実効性を重んじ、場合によっては実際に経験することをも辞さない。

総合人間学は真偽を検証する実証を重んじる。実証的知識は、今日の科学技術が示すように、有効であり、またしばしば有益であるから。しかし実証性に閉じこめることはない。その機序が科学的に未解明である知識の応用にも関心を寄せる。例えば、シャーマニズム、儀礼、あるいは宗教一般の諸活動から結果する事象も積極的に研究対象とする。もちろんシャーマンは、意識的であれ無意識であれ、荒唐無稽なことを語る。あるいは宗教教義は、例えばこの宇宙に天国、地獄、祖霊が生きる世界などが存在する

とか、ある人が処女から、あるいは母の脇腹から生まれたなどと科学的には認めがたいことを事実として教える。しかしこれらの宗教は、信じる人々に癒しや精神的活力を与えることからすれば、決して無益なものではない。

このような事象は既に、人類学、社会学、宗教学、哲学等が研究を行ってきた。しかしこれら諸学は、事象の有益性を評価する基準として研究者個人の価値観を暗黙の前提としていることがしばしばである。グローバル化が進展した今日の世界において、価値観は人ごとに異なり、文明ごとに異なっている。そうであれば、暗黙の価値観によってなされる評価はおおかた恣意的なものとなることは避け難いであろう。

かつて一つの世界の中の標準的価値観を提示したのは宗教であり、哲学であった。神道、儒教、ヒンドゥー教、イスラム教、ユダヤ教、キリスト教などのいずれか一つの文明圏にいる限り、共通の、謂わば「普遍的な」価値観が存在した。しかしグローバル化した現代世界では、

1 フランスの人間科学館は十年来「人文・社会科学の脱ヨーロッパ化」を目標の一つに掲げて来たが、その研究主体がほぼヨーロッパ人に限られるという状況であった。総合人間学に関するAA研との学術協力協定は、このような背景によっても望まれたものである。

宗教、非宗教、科学主義、ニヒリズムなどの種々の異なる立場と絶えず遭遇することになる。

近代人文・社会科学がヨーロッパにおいて確立され、今日においてもヨーロッパが主導的立場にあることからしてこの評価の「基準」を作る価値観は、多くの場合、西欧的である。評価基準が真に普遍的なものとなるためには、上に記した諸世界やその他の世界の価値観を総合したものである必要があろう²。

こうして総合人間学は、事象の最も広い視野から評価した有益性に対して、実証性と同じ重要性を認め、知の文明的総合性を希求するものである。

(2) 生物学的総合性

知の総合性を求めるならば、文明的総合性ととも、生物学的総合性をも求めなければならないであろう。人の価値判断を左右する情念は、三局面を通じて形成されると考えられる。すなわち、1) 遺伝的局面 (génétique)、2) 後遺伝的局面 (épigénétique, 受胎から12才頃まで)、3) 離遺伝的局面 (apogénétique, 12才頃以降)、であり、それぞれ前の局面が後の局面の発達基盤となっていると考えられる。

遺伝的局面と呼ばれるのは、ヒトの脳形成が遺伝子的にプログラムされているからである。例えば、ヒトと鳥類のみが小脳を特に発達させ、鳥類は飛行、ヒトは二足歩行という、複雑系によって制御される特異な運動を手に入れた。ヒトと鳥類のみが言葉を発声することができるのは、この複雑系運動制御のおかげである³。他方、有名なフィネアス・ゲージの不幸な事故以来、ヒトにおいて最も最近になって発達した前頭前野の喪失は、言語能力に何の変化も与えないことが知られている。この二事実を突き合わせる

ならば、言語能力は、十万年ないし二十万年前に出来上がったとされる狭義の言語よりもずっと古く、二足歩行の開始頃から準備され始めていたと考えてよいであろう。他の動物の二足歩行より約四割のエネルギーを節約できると言われる複雑系制御によるヒトの二足歩行は、百ないし二百万年前から発達し始めた。言語に関わる能力は今日想定されているより遥かに古くから人の認知・表現能力に関わってきたと考えられる。そうとするならば、宗教の多くが、とりわけシャーマニズムや儀礼宗教が、言葉の発声を特に重んずることも理解されよう。人にとって何がよりよい生であるかを考察する際に、このような視点から言葉の発声や歌と人の幸福感との関係を検討する必要があるであろう。

上述の前頭前野を喪失したフィネアス・ゲージやその他の人の例は、さらに一つの事実を示唆する。人の持つ責任感や思いやりなどの情念が、前頭前野の働きに関わることである。⁴ 人はその進化の過程で形成された自然的性質に沿った生き方によって幸福感、達成感を獲得できるとするならば、よりよい生を求めべきは、このような前頭前野の働きを活性化させる方向であろうと予測することができるのではあるまいか。

後遺伝的局面に関しては、外国語習得の例がわかり易い。およそ12歳以前に習得した言語は母語となり得る。しかしそれ以降に学習した言語はそうならない。同様のことは、人の文化的意識(「常識」と呼ばれるもの)の形成についても言えるであろう。そうだからこそ文化的に異なる人々の間の相互理解は困難なのである。

宗教間、あるいは文明間の対話は、母語が異なり、母語しか知らない人どうしの対話と同じほど困難なのである。このことを考慮するなら

2 フランスの人間科学館は十年来「人文・社会科学の脱ヨーロッパ化」を目標の一つに掲げて来たが、その研究主体がほぼヨーロッパ人に限られるという状況であった。総合人間学に関するAA研との学術協力協定は、このような背景によっても望まれたものである。

3 中田力「人間の条件—脳科学の知見から」『総合人間学叢書』第2巻pp.9-16. 2007年3月、参照

4 Cf. Fuster, J. (2008). *The prefrontal cortex*. London, UK: Elsevier.

ば、文化伝統の異なる人々の相互理解には、外国語の十分な習得に要するほどの時間、すなわち数十年を要するとしても当然であることが理解される。

いま一つの例を挙げるならば、幼時に虐待された子供の治療は極めて困難であり、脳神経回路に異常をきたしている場合には殆ど不可能に近いと報告されている⁵。文明間対話や少年兵士などの問題に対処する際には、このような事実をも視野に入れておく必要があるであろう。

離遺伝的の局面に関しては、人がそれぞれに持つ世界観を例として取り上げよう。動物行動学者によれば、生物は常に環境世界の理解につとめており、周りで起こっていることが理解できたときには満足あるいは安心し、そうでない場合は不安に陥ると言う。ヒトもホモ・サピエンス・サピエンスとなって以来は⁶、神話などの世界観を持とうとし、それによって世界を「理解」してきたと思われる。この世界観は、言語を獲得したことによって格段と複雑なものとなったが、その機能そのものは、「安心させる」という古くから受け継がれたものであると推定される。

最近の比較神話学の成果は、最古の神話が十万年前のアフリカまで遡るものと推測している⁷。人は、遺伝的、後遺伝的な過程を通じて形成された認知能力をも包含し、離遺伝的過程において格段に発達した言語によって紡ぎ出された、複雑な世界観を持つことによって安心を得る動物であると言えよう。

このように考察するならば、今日の世界にお

いては、グローバル化した世界と、人の自然的性質とにふさわしい、新しい世界観が必要とされていること、それを構築することの重要性が認識されよう。

(3) 相互参照性と共同作業

上に述べた文明的総合性と生物学的総合性という二つの総合性を確保することは、易しい作業でないことは明らかである。それでは最も確実な、また人のよりよい生に有益な情報をいかにして集約するか。このために総合人間学は二つの方法を提案する。

先ず第一に、リフレクシヴな方法である。初めに重要な情報を収集する基準を定め、その基準によって情報を集める。次にそれを吟味して総括する。その総括に基づいて基準を手直しし、新しい基準によって情報を集め直す。これを繰り返す。これは古典的な方法であるが、人に関する考察においては、時間と労力がかかりすぎると判断されたのか、実行されることが少なかったと思われる。

第二に、これを実行するためには、あらゆる分野の研究者が共同考察する場を作ることが望ましい。文明事象に関しては、古典学、人類学、社会学、哲学など、生物学的事象に関しては、脳神経科学、動物行動学、精神科学、考古学などの研究者が参集する場が必要であろう。異なる領域の専門家が互いの知識を交換するには、対面して会話することによって初めて、他の研究者の知識を我が物とし、自己の研究に用いている概念を変えるべき新たな視点を獲得するこ

5 Cf. Steinlin (2007). "The cerebellum in cognitive processes: Supporting studies in children." *The Cerebellum* (6), 237-241.; Martin H. Teicher, Wounds that Time won't heal: The Neurobiology of Child Abuse. in *Cerebrum* (Dana Press), Vol.2, No.4, pp. 50-67; Fall 2000.

6 ホモ・サピエンスに属する可能性のあるホモ・サピエンス・イダルトゥに関しては、White, Tim D.; Asfaw, B.; DeGusta, D.; Gilbert, H.; Richards, G. D.; Suwa, G.; Howell, F. C. (2003), "Pleistocene Homo sapiens from Middle Awash, Ethiopia", *Nature* 423 (6491): 742-747, 2003. 参照。彼らが言語を話したかどうかは不明。

7 Cf. Michael WITZEL, Out of Africa: The long journey of the oldest tales of humankind, *Generalized Science of Humanities*, Vol. 1, pp.21-65. Tokyo, July 2006.

8 これに関する理論的考察が、第1回パリ・ワークショップのテーマとなった: *Ecologie des transferts épistémiques dans la constitution d'une Histoire de l'Humanité*, 25 et 26 mars 2007, MSH (Paris). 詳細は総合人間学サイト参照: <http://www.classics.jp/GSH/workshop>

とができる⁸。

研究者のみならず、政治家、官僚、企業人などの参加も、総合人間学の視野を拡大し、社会に対する何らかの提言を行うために必要であろう⁹。

このような諸専門家の共同作業は、確実に重要な情報を迅速に収集し、それをリフレクシヴに検討するためには不可欠である。急速な、根本的な変容を繰り返す現代世界にあって、今求められているのは、このような総括の迅速さであろう。

(4) 実践する学としての総合人間学

総合人間学が希求する目標はさらにある。人の行為がその意識を変え得ることは周知の事実である。例えば、スポーツ選手、修行者、宗教者らは、行為を通じて自分の感情や意識を変える。総合人間学は、これら専門家たちが自らの経験について記述するところを、古典学、人類学、社会学などと同じく局外者として理解しようとするばかりではない。必要な場合には、それらの専門家の実行するところを自らも実践して経験することを厭わない。このようにして、実践者にのみ獲得される「内面的事象」すなわち意識をも考察の対象とする。こうして総合人間学は、実践によって新たに獲得された意識に基づいてさらに考察を先に進めることができる。

社会に対する貢献を目標の一つとする総合人間学は、教育、心理療法、宗教実践等も、それらが青少年、病人、信仰者等の心を変えるという点に着目して、考察の対象とする。教育に関しては、総合人間学は、青少年に必要な教養や、自省や自律的思考を要請するリフレクシヴな思考原理を提供するばかりではなく、自ら実践し、

経験することによって自分の精神性を変えることが可能であることを知らしめる。

より一般的には、総合人間学の社会貢献は、人々に、単なる観察によるばかりではなく、実践経験によって獲得された重要な知識とその総括を提供することである。これらの知識は、現在の人文科学の枠組みに規制されて殆ど知られていないか、初めて知られるものであり、高度の有用性を持つと考えられる。

学術面における貢献としては、総合人間学は、諸学において現在用いられている概念や研究の方向性に変革をもたらし、新しい体系構築の糸口を与え得ると期待される。

総合人間学は、一定の体系的理論を応用に移すという意味での応用科学ではない。直接対話の方法によるリフレクシヴな方法を用い、重要情報を集約し、種々の実践を提案する。その俯瞰的世界観に基づいて、総合人間学は現代世界が直面する深刻な問題の解決も考察の対象とする。例えば総合人間学研究に参加している世銀の元副総裁ジャン＝フランソワ・リシャール氏は、緊急に解決を要する20の世界的重要懸案を20年以内に解決する方法を提案している。それは専門家からなる国際委員会を設置し、それが世界の政府や国際機関、企業等の政策を評価し、場合によって批判する、という方法である。これは実行可能で有効な解決法であり、今日の世界の急速な変容速度に対応する迅速性をも備えていると考えられる¹⁰。

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総合人間学は、単なる知識の総括に留まらず、それを用いて人にとってのよりよい生を実現する方策を考察してゆくであろう。例えば、世界人権宣言（1948年国連総会採択）や、国際人権規約（1966年採択）などに宣言された社会的規

9 Cf. JF Rischard (Banque Mondiale) 氏の論文 (op.cit n.7) 参照。François Taddei (INSERM, Paris) 教授も、青年の教育活動実践に関する報告を第2回パリ・ワークショップにおいて行った：'Consciousness from View Point of Geneticists and Evolutionary Biologists', « *Formation of Consciousness, Change of Cognition* », MSH, Maison des Sciences de l' Homme, 2 & 3 avril 2009.

10 Cf. JF RISCHARD, Desperate Times Require Out-of-the-Box Solutions, *Generalized Science of Humanities*, Vol. 3, pp.7-13. Tokyo, Janvier 2008. Voir notre site web: <http://www.classics.jp/GSH/book/03.html>

範は、真に文化的に普遍的な条件を備えている
とは言い難く、不十分さが否めない。総合人間
学は、上述の方法によって、最低限の社会規範
の考察にも貢献することができよう。

総合人間学の構築は、「全球化」が諸文明の
頻繁にして緊密な接触を促し、大小の紛争を生
起させている現代世界において、急ぐべきこ
とと思われる。相互不理解、文化伝統の喪失、
狂信的教義への回帰などが払拭されない世界に
対して、総合人間学は、種々の精神伝統を生か
した、常なる刷新を行う「多様な伝統の一々の

さらなる発展とそれらの共存の方策」を模索し
てゆくであろう。

総合人間学は、人の生物学的、文化的条件の正
確な認識に基づき、人の遺伝的、後遺伝的、離
遺伝的な条件にふさわしい、よりよい生を希求
することを、最終目標としている。

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CHANGE OF CONSCIOUSNESS IN SIBERIAN AND SOUTH EURASIAN SHAMANISM

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§ 1 INTRODUCTION

Shamanism¹ is a topic that has been under constant and controversial² discussion,³ especially since Eliade.⁴ It is best known in its Siberian version, treated by many well-known specialists

including R. Hamayon and Walter-Fridman.⁵

In shamanistic belief, the world is permeated by spirits that affect the lives of the living. In our present context, it is important to underline the change of consciousness that the shamanic adept

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- 1 Mircea Eliade, *Shamanism, Archaic Techniques of Ecstasy*, Bollingen Series LXXVI, Pantheon Books, NYNY 1964, definition: p.3-7.; Roberte Hamayon, *La chasse à l'âme : esquisse d'une théorie du chamanisme sibérien*. Nanterre : Société d'ethnologie, 1990. See now the encyclopedic volumes by Namba Walter and Neumann Fridman 2004. – For Eurasian shamanism (and Greek myths) see Burkert 1979: 88 sqq.; Ōbayashi 1991, Oppitz 1991 (with a detailed study of Magar shamanism), Vitebski 1995, and Maskariniec (1995) for the neighboring area of Central Nepal. – A history of the study of Shamanism (by R. Hamayon) is given 2004:142-147.
 - 2 See Walter and Fridman 2004; XIX.
 - 3 Kehoe is highly critical of Mircea Eliade's work: Eliade, being a philosopher and historian of religions rather than an anthropologist, had never done any field work or made any direct contact with 'shamans' or cultures practicing 'shamanism'. Eliade's 'shamanism' is an invention synthesized from various sources. Definitive items of shamanism, notably drumming, trance, chanting, entheogens and hallucinogenics, spirit communication and healing, all exist outside shamanism as well. They are unique to each culture and cannot be generalized into a global 'religion' such as shamanism. – Kehoe is also highly critical of the notion that shamanism is an ancient, unchanged, and surviving religion from the Paleolithic period. – Mihály Hoppál recommends using the term "shamanhood" or "shamanship" for stressing the diversity, – a term used in old Russian and German ethnographic reports. Shamanism is not a religion of sacred dogmas, but linked to the everyday life in a practical way. – Piers Vitebsky mentions, that despite really astonishing similarities, there is no unity in shamanism. Pure shamanistic societies do not exist now (although, as for the past, their existence is not impossible)..
 - 4 Eliade 1951/54, 1946, 1949. –Namba Walter and Neumann Fridman 2004, includes the article by M. Winkelman, *Cross-Cultural Perspectives on Shamans*, p. 61-70, who finds that "healing practitioners of the hunter-gatherers and other simple societies ... in Eurasia, the Americas, and Africa are more similar to one another than to other magico-religious practitioners in the same region." He believes that they are "predicated by nomadic residence and political integration limited to local community, but not diffusion, indicating that the role of shaman had an independent origin in each society" (2004: 63). The rest of Winkelman's description follows the common pattern of an altered state of consciousness, initiation, healing, etc.; it includes a scheme of transformation from hunter-gatherer shamans to sorcerers/witches, mediums, and priests in agricultural and state societies (2004: 67-68, Winkelman 1990), cf. the discussion, below. For Eurasian shamanism (and Greek myths) see Burkert 1979: 88 sqq.; Ōbayashi 1991, Oppitz 1991 (with a detailed study of Magar shamanism), Vitebski 1995, and Maskariniec (1995) for the neighboring area of Central Nepal. – A history of the study of Shamanism (by R. Hamayon) is given 2004:142-147.
 - 5 Eliade 1951, Hamayon 1990. Recent updates are found in Campbell (1988: I.1: 73 sqq, 90 sqq; I 2; 156 sqq.), Mastro-mattei and Rigopoulos (1999), and notably in the encyclopedic collection edited by Walter and Fridman (2004). Early Chinese forms have been studied by K.C. Chang (1983) and early Indian ones in the Rgveda by Oguibénine (1968), Meisig (1995), Filippi (1999) and Torcinovich (1999), as well as G. Thompson (2003).

undergoes and that the fully developed shaman experiences each time he performs a shamanic session. This includes, mostly following its 'typical' Siberian form, the following aspects

- The (fe)male adept, after a sudden crisis, believes that he is chosen, is then recreated and educated by the spirits,
- He becomes an "embodiment" of his spirit guardian or helping spirit ('familiar'), or his double (external) soul in animal form.
- He then is able to travel to the other worlds to communicate with the gods and spirits,
- in a state of ecstasy exhibited in his rituals,
- in which this state is induced by music (drumming), dancing, recitation of 'mantras,' etc.

Or, with Eliade, this includes the following points:

- * Spirits exist and they play important roles both in individual lives and in human society.
- * The shaman can communicate with the spirit world.
- * Spirits can be good or evil.
- * The shaman can treat sickness caused by evil spirits.
- * The shaman can employ trance inducing techniques to incite visionary ecstasy and go on "vision quests".
- * The shaman's spirit can leave the body to enter the supernatural world to search for answers.
- * The shaman evokes animal images as spirit guides, omens, and message-bearers.
- * The shaman can tell the future, scry,⁶ throw bones/runes, and perform other varied forms of divination

We will have to return to the shaman's state of mind repeatedly later on.

FUNCTION and PERFORMANCE

Shamanism requires special individual knowledge and special abilities, usually learned during a long apprenticeship. Shamans are not tied to individual religions and usually operate outside them. They operate alone (although some take on an apprentice or minor shamanic helper). However, shamans can also gather into associations (see below on Tantric shamans).

Shamans have a number of functions, which depend very much on their respective cultures. They mediate between the various worlds. This includes, first of all,

- * acting as a psychopomp, as healers (like psychologists and doctors), or as fortune-tellers, and even as political advisers;
- * they preserve their individual tribal traditions by storytelling and singing songs;
- * They can also lead a sacrifice, and act as priests.
- * In some cultures, a shaman can have several functions in one person.
- * Shamans also determine society's features – such as the movements of nomadic tribes.

In some cultures, the border between the shaman and the lay person is not sharp: "Among the Barasana, there is no absolute difference between those men recognized as shamans and those who are not. At the lowest level, most adult men have some abilities as shamans and will carry out some of the same functions as those men who have a widespread reputation for their powers and knowledge."⁷

The upkeep of shamans and their taking part in everyday life varies. Among many Eskimo groups, they get a "payment" for their services. But such goods usually are not enough to enable

6 Scrying (also called crystal gazing, crystal seeing, seeing, or peeping) is a magic practice that involves seeing things psychically in a medium, usually for purposes of obtaining spiritual visions and more rarely for purposes of divination or fortune-telling.

7 Stephen Hugh-Jones 1980: 32, Hugh-Jones, Christine (1980). *The Palm and the Pleiades. Initiation and Cosmology in Northwest Amazonia*. Cambridge Studies in Social and Cultural Anthropology. Cambridge University Press.

life as a full-time shaman. Instead, shamans live like everybody else, such as hunters or housewives.

Among some Eskimo peoples, many lay persons people had shaman-like experiences: daydreaming, reverie, or even trance. As indicated earlier, it is the control over the helping spirits that distinguishes shamans from lay persons or merely possessed ones (about which more later); lay persons, too, use amulets, spells, formulae, and songs. Some lay persons have closer relationships with spirits than others: they are apprentice shamans who failed to accomplish their learning process.

While some societies have such helpers of shamans, who also interpret their sayings, the shaman simply knows more myths⁸ and understands their meaning better. He thus acts as the transmitter of traditional tribal lore, also about the 'origins' of the tribe or 'the shaman' as such (with the Magars in W. Nepal, as per M. Oppitz). Even then, most adults know many myths as well.

In some cultures additional types of shamans perform more specialized functions, for example as a psychopomp. Other specialized shamans may be distinguished according to the type of spirits, or realms of the spirit world, with which the shamans most commonly interacts. These roles vary among the Nenets, Enets, and Selkup shamans. Among the Huichol, there are two categories of shamans, demonstrating the differences within a single tribe.

§ 2 DEFINITION

However, there still is a problem of proper definition of the 'shaman' and shamanism. Normally we understand by this disputed term the Siberian variety that has briefly been characterized earlier

in the general description of shamans, above.

Both the word "shaman" and the concept of "shamanism" have been employed in a multiplicity of ways in scholarly and especially so in popular literature. The word "shaman" is a Tungus word and is not derived not from the Indo-Aryan word for an ascetic or Buddhist monk, *śramaṇa/samana*: *śamán* is the Tungus (or Manchu) word and means "he or she who knows."

It may be advantageous therefore to start with a definition.⁹

Walter and Fridman (2004) stress the current * broad interpretation of the term 'shaman' as designating *any kind of ecstatic behavior* including spirit possession, witchcraft, even cannibalism, and, on the other hand, offer

* a narrow definition, as above, that stresses initiatory crisis, vision quest, an experience of dismemberment and regeneration, climbing the sacred (world) tree, spirit flight, the role of the shaman as healer, and the use of trance.¹⁰

Most important for our current purpose it to investigate the way a lay person becomes a shaman, which changes in consciousness he or she undergoes, and which of such changes shamans experience each time they 'shamanize'. We will return to this topic later.

In addition to the so-called "classical" Siberian form, briefly described in the initial sections, shaman practices occur in large number of areas south to it, and across the ocean in Americas. They also occur in parts of Africa, in the Andaman Islands, with the Semang in the Malay Peninsula, in New Guinea, Australia, and S. America.

It will be pointed out that Eliade's discussion of African and, in part, Australian shamanism is inadequate,¹¹ while his version of the 'typical'

8 Including that about the first shaman: for the myths about the first shaman with the Kham Magar, see Oppitz 1991: 174 sqq. and for his successors p. 392 sqq.

9 Walter and Fridman 2004: XVII sqq, especially XXI sqq.

10 Note the neuro-biological critique by Winkelman 2002, and in: Walter and Fridman 2004: 187 sqq.

11 See Walter and Fridman 2004; XIX.

North Asian/Siberian and Amerindian¹² shamanism has been reconfirmed by many scholars.

Eliade¹³ nevertheless stresses the similarities between Siberian and Australian initiation rites as important for the role of shamanism and its Palaeolithic origins, especially the importance of caves.¹⁴ He also compares the insertion of crystals found with the Semang, Australians and South American Indians,¹⁵ which he correctly regards as an archaic trait.¹⁶ The same applies to dissecting of the body of the initiate in Australia and Siberia.¹⁷

However, Joseph Campbell's characterization,¹⁸ in his 'classic' *Atlas*, of the shamanism of the Australian Aborigines is misleading. He distinguishes, erroneously I believe, between primitive (Eskimo), deteriorated (Australian), San (Bushmen),¹⁹ and post-Palaeolithic Siberian shamanism.²⁰ However, he correctly observes that in many tribal cultures the medicine men, the "dreamers" are the main transmitters of myths and rituals.²¹ Such distinctions, however, are based on the Siberian model and need to be redefined. (On the other hand, it should be clear

that many if not most forms of African healers and witch doctors do *not* fit the criteria used by Basilov or Eliade).²²

As mentioned, Campbell wants to see the Australian form as 'degraded.' I cannot detect such a thing. In contrast, the elements of learning from older shamans and of gradually managing the powers released/contacted are present in all these "Southern" forms.

* * *

However, once we take into account that these peoples live close to one of the places of human origin in East Africa, indeed are remnants of the early dispersal along the Indian Ocean, our gaze that is focused on Siberia must be reversed. It can be assumed, instead, that the San, Hadza/Sandawe, the Andamanese and the Australians have preserved a *prototype* of what later became Siberian and Amerindian shamanism (that is to be distinguished from mere possession).

The earlier, Pan-Gaeon and Gondwana versions have dancing but they do not yet have the typical Siberian feature of shamanistic drumming²³ and not yet much of the shamanic dress; neverthe-

12 See for example the typical traits of Yamana (Tierra del Fuego) initiation of shamans (Eliade 1954:63, following Gusinde 1931-).

13 Eliade 1954: 60sq. He excludes a discussion of African shamanism (Eliade 1954: 357), awaiting better materials.

14 Eliade 1954: 61. For the myths about the first shaman with the Kham Magar, see Oppitz 1991: 174 sqq. and for his successors p. 392 sqq.

15 Eliade 1954: 62

16 Eliade 1954: 62. In the light of recent work by Y. Berezkin, South America may preserve some archaic data that otherwise are found only in New Guinea and Australia while North America has subsequently been heavily influenced from Siberia. If so, the trait of inserted crystals would have been brought in around 20 kya.

17 Eliade 1954: 60.

18 Campbell 1988: I 2: 170sq.

19 For a brief summary, see Connah 2004: 30 sq.

20 Campbell 1988: I 2: 171.

21 Campbell I 2, 1988: 167.

22 See characterization by Edith Turner, in Walter and Fridman 2004: 886-889, Walter & Fridman, 951 sqq. for possession see 951 sqq.; similarly, including sacrifice, perhaps the Igbo (p. 925 sqq.).

23 The typical shamanistic frame drum is attested in Sumerian finds of c. 2000 BCE, with the Hittites, and Egyptians (c. 950-730 BCE), see Walter and Fridman 2004: 101sq; and note Witzel (2003) on the Central Asian and Indus versions: these are depicted on seals of the Bactria-Margiana Archaeological Complex about 2000 BCE; a similar scene is found in the contemporary Indus Civilization. A neighboring modern specimen is found with the Kalasha in NW Pakistan (Witzel 2004) – Drumming is not strictly necessary to produce the shamanistic altered state of mind, note the San's drumless music; (some elements of such music go back to our primate ancestors), cf. Walter and Fridman 2004: 100; 189.

less they share, instead, a unique perception of difficultly controlled heat that raises from the lower end of the spine upwards,²⁴ – a feature that is still retained in some form of Indian Yoga (see below).²⁵ Eliade, however, also regards such 'heat' as a general phenomenon connected with magic, not as a typical shamanistic trait.²⁶

We will return to the details of Southern shamanism after taking a closer look at its Siberian form.

§ 3 SIBERIAN SHAMANISM

As we know best about the "classical", Siberian form of shamanism, we begin with a description of its features. A comprehensive description of this narrow (Siberian) version is that recently given by Basilov²⁷

shamanism ... emerged in the period when hunting and gathering were the main means to support life. .. [The] most important ... beliefs [are:]

- (a) all the surrounding world is animated, inhabited by the spirits who can influence man's life;
- (b) there are general and reciprocal interconnections in nature (humans included);
- (c) human beings are not superior but equal to the other forms of life;

- (d) human society is closely connected with the cosmos;
- (e) it is possible for human beings to acquire some qualities of a spirit and visit the other worlds;
- (f) the aim of religious activity is to defend and make prosperous a small group of kinsmen.²⁸

In more detail:

1. The ideological background is that humans and spirits²⁹ or deities are closely related and interact, especially through the person of the shaman who insures the prosperity of the clan in hunting and other activities.

2. The male or female shaman is someone who is "called" to the task by spirit(ual) powers. Shamans often say that they did not choose to be a shaman but were forced to by the spirits. Among the South American Tapirape, shamans are called in their dreams. — In still other societies shamans choose their career. In North America, American Indians seek communion with spirits through a "vision quest". The South American Shuar, seeking the power to defend their family against enemies, apprentice themselves to accomplished shaman.

3. The shaman provides a link with the several (often 9) planes of the world, of which we can see

24 This may be connected with the climbing of the (world) tree during the initiation of a shaman; for illustrations see Oppitz 1991: 375, Campbell 1988: I.2 159 (Mapuche in C. Chile); The concept is retained in the solemn Vedic Vājapeya ritual, where husband and wife have to climb a tall pole and sit on a wheel mounted there (symbol of the turning of the sun and nighttime sky), while they are pelted with salt bags; cf. Witzel 1984.

25 See Eliade 1954: 356.

26 Eliade 1954: 438sq, cf. Campbell 1988: I 2: 165.

27 Basilov 1999: 39.

28 Cf. Walter & Fridman 2005: Introduction, XXI. The classical definition by Shirokogoroff (1935) for Tungus shamans is similar, if more concise:

- (1) A shaman is a master of spirits, who has
- (2) mastered a group of spirits;
- (3) a shaman commands a recognized array of techniques and paraphernalia that have been transmitted from elders;
- (4) s/he possesses a theoretical justification for the shamanistic process;
- (5) the shaman occupies a special position.

29 Linguistically attested at least since Nostratic times, see Illich-Switych 1971 sqq (see Mark Kaiser's summary in English), that means since well before 10,000 BCE; some put Nostratic at a much earlier date. This is indeed required by the deep time depth of one of its members, Afrasian, see Ehret 1995.

only one, our world. The other planes are those of the spirits or powers who affect our own world.

Shamans gain knowledge and power by moving up the axis mundi³⁰ (symbolized by a tree or a pathway, for example with the Siberian Yakuts, Dolgans, Evenks, Hoppál 2005: 149), and bringing back knowledge from the higher planes. Or they do so by animal familiars, for example the water fowl (Vitebsky 1996: 46), seas ducks (Hoppál 2005: 94), the jaguar in the Amazon.

4. The shaman is primarily a healer in societies that practice shamanism. The shaman visits the other planes of the universe to find out what the spirits want, so that sickness, and other bad things such as violent weather, nightmares etc. stop, so that health, good things such as fertility, abundance, even happiness, return to our world or continue and expand.

As the causes of disease are with malicious spirits or witchcraft (caused by other, evil shamans as well). Spiritual and physical methods are used to heal, such as retrieving the lost soul of the ill person (Hoppál 2005: 27) and by obtaining the soul of an unborn child to heal infertility in women.

5. The shaman heals by going into trance, and then going to the spirit world. He/she leaves his/her own body or transforms into another being, the 'familiar'. The shaman may have one or more 'familiars', usually a specific animal,³¹ or his double soul, or spirits of healing plants, or (sometimes) those of departed shamans.³²

Often, a shaman will "enter the body" of the patient to confront the spirit making the patient

sick, and heal the patient by banishing the infectious spirit.

6. Shamans usually are expert of the plants in their area. Herbal treatment is often prescribed. Shamans often claim to learn directly from the plants, and can use them only after receiving permission from their spirits.

Further, the use of items such as rocks or quartz is common as they have special powers and an animating spirit.³³ As we will see they often are (spiritually) inserted into a shaman.

7. The shaman also help the hunt with magic. When there is scarcity of game, he releases the souls of the animals and ensures by taboos that their souls are not angered or hurt, or that a killed animal tells the others to let themselves to be killed.

8. By undertaking this kind of work, the shaman takes significant personal risk: This arises from the spirit world, from enemy shamans, and from the means employed to alter his state of consciousness.

Some plants used can be fatal. Further, if he does not return from the out-of-body journey, this can lead to physical death. Spells are used to protect against such dangers. The use of more dangerous plants is usually highly restricted and ritualized.

Unusual sexuality (or transformation into the other gender as in Siberia) is often found, as it is said to give the shaman insight into the totality of human experience. But shamanic 'vocation' also runs in families, for example among the Magars in Nepal where shamanic vocation moves for

30 Note that some scholars regard this world view as a body-based cosmology, and some of its aspects, such as soul flight, as symbolism that presents the experiences of dreams. (Shamanism could then be a symbolic system that even predates language). See Walter and Fridman 2004: 188. (Note G. Maskarinec in Walter & Fridman 2004: 767; F. Smith, *ditto*: 780).

31 Even today, this ancient practice of healing is referenced by the use of the caduceus as the symbol of medicine.

32 In South America, individual spirits are summoned by the singing of songs called *icaros*; before a spirit can be summoned the spirit must teach the shaman its song.

33 Such practices are presumably very ancient; in about 368 BCE, Plato wrote in the *Phaedrus* that the "first prophecies were the words of an oak", and that everyone who lived at that time found it rewarding enough to "listen to an oak or a stone, so long as it was telling the truth". — In many shamanic societies, magic, magical force, and knowledge are all denoted by one word, such as the Quechua term "*yachay*".

male to female to male in successive generations. The same is true for Tuva, where the Mongols believe the best shamans are born.

Thus, in some societies shamanic powers are inherited, in others shamans have been "called" and require lengthy training.

9. When the shaman returns to consciousness, or to this world or his/her body, the shaman transmits the messages of the spirits/deities.

Underlying is the common belief in the spirits or the supernatural, in witchcraft and sorcery. Sometimes, shamans who cure illnesses are distinguished from sorcerers who harm. Otherwise, all shamans have the power to both cure and kill.

As a result, the shaman usually enjoys great power and prestige in the community, and is renowned for powers and knowledge; but shamans may also be suspected of harming others and thus are feared. Thus, in some cultures shaman are highly regarded, while in others they are feared because of their power. It can be an onerous position because of the responsibility for the well-being of others.

However, a shaman cannot just claim to be one; he/she must first be an apprentice under another shaman and learn the many types of ceremonies, actions, chants needed by a shaman. In addition an apprentice shaman must learn the local cosmology of the other realms he/she is going to visit.

In sum, the functions of a shaman include curing (healing) of illnesses and also guiding the souls of the dead. Illnesses are cured by flattering, threatening, or wrestling the disease-spirit, sometimes with displaying some extracted token of the disease-spirit.

His knowledge is based on the fact that he keeps together the multiple strands of the complex shamanic belief system. He uses multiple codes and expresses meanings in many ways: verbally, musically, artistically, in objects and in dance.

He knows the local culture well and acts accordingly, suing what Juha Pentikäinen³⁴ calls a "grammar of mind". On the other hand his audience knows the symbols and meanings: people in the audience believe and trust it.³⁵

* * *

Basilov (1999) therefore defines a shaman as follows,

"the peculiarities that distinguish a shaman ... are

- (a) he can perform his functions with the assistance of his helping spirits only;
- (b) he is chosen, brought up, 'recreated' and educated by the spirits themselves;³⁶ as a result, he possesses some supernatural qualities and knowledge,
- (c) he is able to penetrate into the other worlds in order to communicate with the gods and spirits;³⁷
- (d) the shaman's contact with the gods and spirits presupposes a state of ecstasy as a form of ritual behavior;
- (e) the main ritual object of a shaman is an incarnation of his guardian spirit (or helping spirit) or his double (external) soul in animal form; this object is firmly connected with a shaman's personal professional qualities and his life.

In sum, the shaman is an early form of the

³⁴ Pentikäinen 1995: 270–271

³⁵ Hoppál 2005:25–26,43.

³⁶ On the initiation of shamans, see Walter & Fridman 2004: 153sqq

³⁷ This is to be distinguished from (involuntary) spirit possession, which is more typical for Africa, and parts of India; see discussion in see Walter & Fridman 2004: 228-234; cf. Winkelman (2004: 61sqq), and *passim* on various African populations.

typical 'intermediary' (like the later priests),³⁸ but he is one who has obtained and "tamed" special powers that he exercises in trance, including heat (about which more later).

CONSCIOUSNESS AND INITIATION

Clearly, certain psychological features, a change of consciousness and trance are involved. However, the shaman's state of mind is not 'possession' in the common use of the term, though the two, possession and shamanic trance, are frequently confused.³⁹

Not "possession"

It is important to distinguish the commonly found involuntary phenomenon of *possession* by a spirit (often of prepubescent girls) from the *self-induced* shamanic *trance* that occurs after (initial) contact with the spirits indicated by shaking.

After his initial involuntary or accidental contact with the spirit world, it is the shaman's quest to contact spirits and the other worlds, while in *possession* a spirit enters an *unwilling* being.

Possession, occurring worldwide, therefore has thus nothing to do with shamanism as commonly defined, though some of the outwardly visible aspects may overlap, such as trembling. For ex-

ample, in Nepal and N. India, it is usually women who are possessed (often as an involuntary sign of social protest). They are then called 'witches' (*boksi*) and are exorcised ... by shamans (*jhank-ri*).

Both possession and trance, however, share *one* major feature, that has led to the common confusion between both terms. As indicated, the *initiatory* crisis of the future shaman is usually indicated by shaking, and this is induced by the spirits in some form or the other. This state is also called the "shamanic illness."

Shamanic illness

This is the so-called shamanistic initiatory crisis.⁴⁰ It functions as an -involuntary- rite of passage for the future shaman, and it involves both a more or less serious physical illness and/or a psychological crisis. This state is well attested across the shamanic regions.⁴¹ Next to illness, he can be struck by lightning and dreaming of thunder⁴², or by a near-death experience (e.g., the famous shaman Black Elk).

A certain set of imagery is experienced during shamanic initiation, regardless of the method of induction. As mentioned, this often includes being transported to the spirit world and interact-

38 However, as per Joseph Campbell: "The priest is the socially initiated, ceremonially inducted member of a recognized religious organization, where he holds a certain rank and functions as the tenant of an office that was held by others before him, while the shaman is one who, as a consequence of a personal psychological crisis, has gained a certain power of his own." (1969, p. 231).

39 To be distinguished from (involuntary) spirit possession, which is more typical for Africa, and parts of India; see discussion in see Walter & Fridman 2004: 228-234; cf. Winkelman (2004: 61 sqq), and *passim* on various African populations.

40 Turner, Robert P.; Lukoff, David; Barnhouse, Ruth Tiffany & Lu, Francis G. (1995) *Religious or Spiritual Problem. A Culturally Sensitive Diagnostic Category in the DSM-IV*. Journal of Nervous and Mental Disease, Vol.183, No. 7, p. 435-444

41 There is a detailed case history of Chuonnasuan, the last master shaman among the Tungus (Oroqen) peoples in Northeast China, see: Noll, Richard; Shi, Kun, "Chuonnasuan (Meng Jin Fu), The Last Shaman of the Oroqen of Northeast China" (PDF), 韓國宗教研究 (*Journal of Korean Religions*, Seoul: 西江大學校. 宗教研究所 Sögang Taehakkyo. Chonggyo Yön'guso 6: 135-162, 2004.)

42 To become a Lakota Heyoka, a contrarian, jester, satirist or sacred clown. This spirit is often manifest by doing things backwards or unconventionally – riding a horse backwards, wearing clothes inside-out, or speaking in a backwards language. – Wicasa Wakan means Holy man, not "Medicine man" or "shaman," an important distinction. A Lakota medicine man is called *pejuta wacasa*. if you had a dream or vision of birds you were destined to be a medicine man, but if you had a vision of the Wakinyan Thunderbird, it was your destiny to become a heyoka, or sacred clown. Like the Thunderbird, the heyoka are both feared and held in reverence

ing with them in their world, meeting a spiritual guide, being dissected or devoured by some being and emerging transformed, and/or being "dismantled" and "reassembled" again, often with implanted amulets such as magical crystals. In sum, in initiation, *transformation* occurs, accompanied by the acquisition of the power to transcend death and rebirth.

In this state, Siberian shamans may behave, according to our standards, in psychotic fashion. However, Siberians interpret it as initiatory 'possession' by a spirit who demands that one assume the shamanic vocation.

However, the shaman does not remain 'possessed' after the initial crisis but undergoes a long period of training by other shamans. After that, he can call on "his" spirit, his familiar, at will, when going into a trance. All of this is quite unlike the involuntary 'possession' by some kind of demon or spirit.

In some societies, shamans assume a two-spirit identity, including the dress, attributes, role or function of the opposite sex, gender fluidity and/or same-sex sexual orientation. This is commonly found among the Chukchi, Sea Dayak, Arapaho, Cheyenne, Navajo, Pawnee, Lakota, Ute, Patagonians, Araucanians, and many other Amerindian tribes. This suggests a very ancient (Eurasian) origin.⁴³ Two-spirit shamans are especially powerful, highly respected and bring high status to their mates. However, duality and bisexuality are also found among the shamans of the Dogon people (Burkina Faso).⁴⁴

Practical Methods of Shamanizing

Once a shaman has been initiated and apprenticed by a master he or she moves along the axis mundi or another path and enters the spirit world by again experiencing a change of consciousness: he enters into an ecstatic trance, either autot hypnotically or through the use of entheogens.⁴⁵

The methods used are many, and some may be used together. The style of shaman performances vary from culture to culture. Importantly, drumming, chanting, dancing & the consumption of psychotropic substances may help one enter the trance state.

Some methods include the use of: dancing, ainging, drumming, listening to music (including medicine songs), use of mantras and their repetition (H. Benson); further: vigils (in which Soma helps to keep awake), fasting (a typical restriction in Indian and many other rituals), the sweat lodge, vision quests, stimulants such as tobacco (which improves concentration), and *mariri*,⁴⁶ Soma, even swordfighting / bladesmithing.

Apart from Indian and Iranian Soma/Haoma (perhaps *ephedra*, with voluminous literature), other plants used include: cannabis, datura, deadly nightshade, morning glory, sweetgrass, cedar, sage, *Salvia divinorum* (*Diviners' sage*) or *iboga* (W. Central Africa). Further, mushrooms such as the fly agaric, psychedelic mushrooms (*'holy children'* with the Mazatec shamans; the San Pedro cactus (Andean peoples, *huachuma* in Quechua), Peyote, *Ayahuasca* (*Quechua, Vine of the Dead*; also *yage*).⁴⁷

Shamans often observe dietary or customary

43 Joseph Campbell, *The Historical Atlas of World Mythology* [Vol. I: The Way of the Animal Powers: Part 2:174], map. See also the maps in H. Baumann, *Das doppelte Geschlecht*.

44 See works of Malidoma Somé, a writer who was born and initiated there.

45 An entheogen, in the strictest sense, is a psychoactive substance used in a religious or shamanic context. Historically, entheogens are derived primarily from plant sources and have been used in a variety of traditional religious contexts.

46 A magical nature spirit that lives in the phlegm of the curandero healers of the Peruvian Amazon Basin. This spirit is fed with tobacco smoke. It is regurgitated at will by the shamans, and is passed on to a disciple either by swallowing the regurgitated substance from the hands of the shaman, or is smoked through a pipe. It can also be given to someone from nature spirits, such as the *ayahuasca* plant spirit.

47 The Urarina of Peruvian Amazonia have an elaborate cosmological system predicated on the ritual consumption of

restrictions, often more than just cultural and involve certain plants that enhance the effect of entheogens.⁴⁸

As for non-entheogen methods, there is, first of all, the use of music and dance. Sometimes such songs imitate also natural sounds, sometimes via onomatopoeia. In the Indian sphere, the use of endlessly repeated "mantras" (and movements) is of great importance (H. Benson).

Drumming plays an important role, most notably in the form of the Siberian circular frame drum.⁴⁹ This drum is used by shamans of several peoples in Siberia and down to Central Nepal (Maskarinec, Oppitz). It is also used by many Eskimo groups, but less so by the Inuit of Canada.

The beating of the drum helps the shaman to achieve an altered state of consciousness or to travel on a journey. The drum is, for example, referred to as, 'horse' or 'rainbow-bridge' — (note the similarity with the Rainbow Snake in San, Australian, etc. shamanic practice) — between the physical and spiritual worlds.⁵⁰ In this journey the shaman moves to the spirit worlds. However, the beating of the drum induces certain neurophysiological effects, just like the repetition of Mantras in India.

Siberian shamans' drums depict are two different worlds, the upper and the lower. The upper world has images such as "climbing a mountain, tree, cliff, rainbow, or ladder; ascending into the sky on smoke; flying on an animal, carpet, or broom and meeting a teacher or guide". The lower world has images such as "entering into the earth through a cave, hollow tree stump, a water

hole, a tunnel, or a tube".

As described earlier, by interacting with the other worlds at an altered and aware state, the shaman can gather and exchange information between them and our world.

Other Paraphernalia

As mentioned above, shamans have various kinds of paraphernalia. Apart from the drum, just described, there is the use of eagle feathers. They have been seen used as a kind of spiritual scalpel. The eagle is, in several traditions (Buryat, Ojibwa, Hopi) the messenger of the Great Spirit or the gods. (in Hopi ceremonies, young eagles are kept and later on "smothered", similar to the *marebito* status of bears with the Ainu). The gift of an eagle feather by the spirits therefore is a very great honor and a favorable message from the spirits. (Note that the Andamanese shaman use palm fronds instead, see below).

Other cultures use different musical instruments: the rattle is mostly used among South American and African peoples, as well as with the people such as the Navajo and Hopi. The gong is found through South East Asia, Far Eastern peoples. The *didgeridoo* and clap stick is found among the Australian aborigines.

Shamanism is often called the circum-polar belief system as it is found in historical times in northern Europe (Saami, Finland), northern Asia (Central Asia, Siberia, Mongolia, Korea, Japan) and the North America. But, it has also spread to the southern slopes of the Himalayas/Pamirs/Hindukush (various Indo-Aryan and Tibeto-Bur-

ayahuasca.

48 For example, the diet followed by shamans and apprentices prior to participating in an Ayahuasca ceremony includes foods rich in tryptophan (a biosynthetic precursor to serotonin) as well as avoiding foods rich in tyramine, which could induce hypertensive crisis if ingested with MAOIs such as are found in Ayahuasca brews.

49 The typical shamanistic frame drum is attested in Sumerian finds of c. 2000 BCE, with the Hittites, and Egyptians (c. 950-730 BCE), see Walter and Fridman 2004: 101 sqq; and note Witzel (2003) on the Central Asian and Indus versions: these are depicted on seals of the Bactria-Margiana Archaeological Complex about 2000 BCE; a similar scene is found in the contemporary Indus Civilization. A neighboring modern specimen is found with the Kalasha in NW Pakistan (Witzel 2004) – Drumming is not strictly necessary to produce the shamanistic altered state of mind, note the San's drumless music; (some elements of such music go back to our primate ancestors), cf. Walter and Fridman 2004: 100; 189.

50 field, Melinda. "The journey of the drum." *ReVision* 16.4 (1994): 157.

mese speaking populations),⁵¹ to South-East Asia and beyond, all over the Americas down to the Fuegians.⁵²

However let us rather look at some form of shamanism outside the area of "classical" shamanism in Siberia and its offshoots in Eurasia and the Americas..

§ 4 'SOUTHERN' SHAMANISM: THE GONDWANA AREA

Some of the major forms of current non-'Siberian' shamanism⁵³ can be described as follows, following the trail of the Out of Africa migration of anatomically modern humans (*Homo Sapiens sap.*) from west to east, some 65,000 years ago. By comparing all major forms extant on different continents, we may be able to learn more about their mutual relationship and history.

1. SAN

The San (Khoi-San or Bushmen) have a dances producing trance, during which they travel, like all shamans, over the earth or to the spirit world. This is the Siberian shamans-like descent and ascent to the sky. They move upward by taking hold of spiders' silk strings... Initiation is of rather prolonged mature in San society.⁵⁴ Trance is often expressed as death, flying, floating or even as drowning.⁵⁵

But they do not have the 'classical' dissection and transubstantiation of the shaman's body, perhaps except for fact that they change into a flying eland antelope (perhaps only after death?)

The Sans' communal dance is accompanied by music made by men and women, using various local instruments and singing. However, this kind of dance is not (yet) the typical solitary dance of the sole (Siberian) shaman, accompanied by a circular drum. It results in trance collapse (*!aia*, *!kia*).

The interaction of music, singers and dancers produces 'heat' as well: the dancers transmit heat ('boiling') to each other, and the women's singing and music, too, activates it, from which the healers may draw energy.⁵⁶

Their shamans⁵⁷ know of the difficult mastering of their internal *heat* (*ntum*, correctly: *n/um* 'medicine'). It moves upward from the base of the spine, and they use that power for healing.⁵⁸ It is controlled by medicine inside their body. The older medicine men are more experienced, they control *ntum*, and call the 'traveling' adept back into his body.

This description immediately reminds of the descriptions of some forms of Indian yoga where the *kundalinī* power is awakened at the bottom of the spine (*guhya*) and likewise moves up, in several stages (*cakra*) up to the head (through whose skull it emerges above it).⁵⁹ We will return

51 G. Maskarinec, *Nepalese Shaman Oral Texts*, HOS 1998

For Kalash, see Capocardo, A. Shamans and the sphere of the 'pure' among the Kalasha of the Hindu Kush. In: Mastromattei & Rigopulos 1999: 57-71; Lièvre, Viviane & Jean-Yves Loude. *Le chamanisme des Kalash du Pakistan : des montagnards polythéistes face à l'islam*; préface de Roberte N. Hamayon ; collaboration à l'iconographie: Hervé Nègre. Paris : Editions Recherche sur les Civilisations, 1990.

52 It is also still found in areas of Indonesia, such as with the Bugi, it coexists with Islam, especially in its Sufi manifestations (Recently there have been several movements to revive shamanism, in various parts of the world: Neo-Shamanism in various forms, often of New Age type.

53 Cf. Harvey 2002.

54 Walter and Fridman 2004: 893.

55 Walter and Fridman 2004: 24.

56 Walter and Fridman 2005: 893.

57 Walter and Fridman 2005: 219-220; 981-994; Connah 2004: 30 sq; Campbell 1988: I 1: 94. Narby and Huxley 2001: 131-134, with a pregnant description of !Kung shamanism and dancing by Lorna Marshall; virtually all men can act as healers.

58 Walter and Fridman 2004: 24.

59 As mentioned this is a body-based cosmology, and soul flight, could be a symbolism that presents the experiences of dreams. See Walter and Fridman 2004: 188

to this parallel later.

Early evidence for San shamanism (or perhaps its predecessors) is found in South African rock art, at 27,000 b.p.,⁶⁰ though archaeologists hold that the San moved into S. Africa from the north only after c. 6000 BCE,⁶¹ most probably, from Tanzania where their distant linguistic relatives, the Hadza⁶² and Sandawe, still live as hunters or also as agriculturists. Their customs include what looks like shamanic curing rituals with trances, or the *simba* (lion) possession dance, in which dancers imitated lions in order to combat witchcraft.

The San were reported, in the 19th century, to have practiced shamanism. In Eastern Free State and Lesotho, where they co-existed with the Sotho tribes, local folklore described them to have lived in caves, where they drew pictures on cave walls *during a trance* and were also reputed to be good rain makers. This rock and plastic art nevertheless shows a continuous tradition since the Upper Palaeolithic.⁶³

Their distant linguistic relatives in Central Tanzania, the Sandawe, have shamanistic curing rituals involving trance, and a *simba* possession dance imitating lions to combat witchcraft. Compared with this the Hadza dance may as well be

shamanistic, the same may apply to the Hadza nearby.

An aside on traditional Africa

There are many forms of "shamanism" or frequently rather "witchcraft" practiced in Africa. The Dogon sorcerers (both male and female, of Mali and Burkina Faso) communicate with a deity named Amma, who advises them on healing and divinatory practices⁶⁴. In the past, traditional healers were often referred to as "witch doctors" practicing "Juju." However as Baumann (1936) and van Binsbergen (2006, 2007) have shown, there has been an influx of shaman practices in Africa as well. The term *sangoma*, in Zulu and other Bantu languages, is equivalent to 'shaman'. (S)he discovers remedies for ailments, after having been informed by a deity in a dream of the herb and where it is to be found.

We return now to other remnants of the Out of Africa exodus, the Andamanese on a chain of islands off the coast of Burma and Indonesia.

2. ANDAMANESE

Andamanese shamans were called *Oko-jumu* "dreamers".⁶⁵ The term means "one who speaks

60 Lewis-Williams 2002.

61 Brooks 2006, Connah 2004.

62 Frank Marlowe reports for the Hadza (<http://www.fas.harvard.edu/~hbe-lab/acrobatfiles/why%20the%20hadza%20are%20still%20hunter-gatherers.pdf>): "The Hadza ... religion is minimalist. They do have a cosmology and men can tell endless stories about how things came to be. They do not believe in an afterlife and there are few religious restrictions. There are few rules in general, and what few there are often go ignored with little consequence, except for the rules about eating the men's special epeme meat. Illnesses may be attributed to violation of these rules (Woodburn 1979). The most important ritual is the epeme dance. In camps with enough adults this takes place after dark on moonless nights. Men wear bells on their legs, a feather headdress, a cape, and shake a maraca as they sing and dance one at a time in a call-and-shout manner, inspiring the women to sing and dance around them. The other main ritual is the Mai-toh-ko, or female puberty initiation..." – One would like to hear more about the nature of this dance as it seems similar to the shamanic San dances. – The earliest written accounts are by Otto Dempwolff (1916) in 1910 and the geographer Erich Obst (1912) in 1911. – Cooper said the Hadza had a primitive religion, while Bagshawe (1925) claimed they had no religion, but Obst (1912) said it was difficult to find out anything about their religion beyond the fact that the sun was God and that prayers were said over dead animals.

63 At the Apollo 11 cave, Namibia, belonging to the Upper Palaeolithic. This concerns "a painted plaquette of a feline with plantigrade rear feet, suggesting ... continuity of belief throughout the Late Stone age" (Lewis-Williams 1984; Walter & Fridman 2004: 20).

64 Kira Salak, *Cruellest Journey: Six Hundred Miles To Timbuktu* (Hardcover) – <http://www.kirasalak.com/Cruellest.html>.

65 Campbell I 1: 118 sqq. Radcliff-Brown 1922.

from dreams', from *jumu* 'dream'.⁶⁶

They were in contact, like the San, with the dangerous primordial power inherent in all objects (*ot-kimil*, *gumul* in the South). There is danger due to contact with this power. People in contact with it are the Oko-jumu. The word *ot-kimil* means 'hot', and it carries a number of interesting characteristics, to which we will return. The Andamanese shamans dream, meet the spirits in the jungle, 'die' and return to life, — but they do not (yet) have the Siberian style trance, nor is the community involved with dancing as with the San. Campbell, however, sees no trance, and hence no shamans.

According to Radcliffe-Brown's account (1922), their 'initiation' could happen in three ways:

- by 'dying'
- by going into the jungle
- by meeting spirits in dreams

After initiation, one continued to communicate with the spirits in one's sleep (dreaming); the shaman had the power of the spirits, and could cause and cure sickness.

A person was contacted by the spirits, for example when having been unconscious ("dead", for up to 12 hours). The Oko-jumu "dreamers" met spirits in the jungle, and thus got Oko-jumu powers (by contact, touching?) They continued to go to the jungle to meet spirits, their friends; when they returned with their head decorated with shredded palm-leaf fiber (*koro*), put on him by spirits. The (North) Andamanese *Oko-jumu* 'dreamers' were believed to possess supernatural powers. Only men could be *oko-paiad*, but in N. Andaman also women could possess these powers (though rarely). Already in Radcliffe-Brown's time most Oko-jumu were dead, and only very old men (via an interpreter!) could answer about their state. (Some younger men tried to become shamans then, but British-induced skepticism prevailed).

Shamanic powers could thus only be obtained

through direct contact with the spirits (Lau or Caua), by being unconscious or also by epileptic fits. Direct contact with the spirits occurred when one met them in the jungle, to a lesser degree by dreams: certain men or boys could however communicate with spirits in dreams. These were usually extra-ordinary dreams, such as if one saw the spirit of a dead person, or the spirits of forest or sea. Dreams were thought to be communicates with the spirits, also of the dead.

The Andamanese also knew of an axis mundi (dipterocarpus tree) which raises the possibility of lost shamanic practices or lack of recording their practices and beliefs by Radcliffe-Brown as shamans were already disappearing then (1920s).

As mentioned, shamanic heat was called *kimil* 'hot' (or *gumul* in the South): the word carries many meanings, but is connected in all cases with extra-ordinary states that were regarded as dangerous, such as :

- the condition of a young man/woman when passing/recently having passed through the initiation ceremony;
- the initiation ceremony itself;
- the condition experienced after eating certain type of 'powerful' foods, such as dugong, pork, turtle, etc.; the body then emits an odor, which attracts the spirits. *Smell is its active force*;
- illness
- the rough sea; (at the end of a cyclone, it becomes 'cold'), as the name of the later part of the rainy season.

It is clear that these conditions produced or had inherent 'heat.'

* * *

Surprisingly, the idea still persists in modern India —whether Hindu or Muslim—where many objects or persons (like the Guru) are believed to be 'hot' and therefore have to be 'cooled' down by a variety of methods—such as pouring milk over

⁶⁶ With the Aka-bea: *oko-paiad*, or *taraba* 'dream'; there is no clear distinction between words.

a Śivalingam, (Abbott 1932).⁶⁷

There are a number of interesting stories from late Vedic texts, via the Epics, and onward that tell how to deal with 'hot' items or persons like the magically powerful Ṛṣis – one sends a divine courtesan (Apsaras) to 'cool them down.'

If we combine this with the India idea of the rising power rising up one's spine in Yoga, we detect very old pathway dependencies in Indian thought—for, the Andamanese are some of the earliest settlers in the subcontinent, shortly after the Out of Africa move some 65,000 years ago. Note also the similarity with the African (San) concept: of how to manage — with difficulty and after a long period of training by other shamans — the heat rising up one's spine. It is remarkable that the San (and Sandawe) lived/live close to the area of origin of the Out of Africa emigrants, in Tanzania, or may have lived even further north (some believe in the Sahara during a warmer and wetter periods in the millennia around 13-11,000 and again from 8000 BCE). It seems that they all have retained early forms of shamanism, in existence well before its development into the classical Siberian type.

We will return to the concept again later on.

As in other areas of shamanism, even men with these powers were not easily recognized as such by others: each of them had to make his own reputation and sustain it by demonstrating it to others. His status resulted in a certain 'profit' as people wanted to be on good terms with him: he got a share of hunted animals, and presents.

The Andamanese shaman's powers included that of curing illnesses, by recommendation or application of (well-known) treatment, or by dispelling spirits, or by using objects that keep them

at a distance, or by his dreams in which he communicated with the spirits and asks them to help the sick person.

He also could prevent bad weather by keeping the Biliku and Tarai spirits under control, or especially those of the sea. In doing so he used certain rites, such as crushing a piece of *Anandendron paniculatum* between two stones, diving with it into the sea, placing it under a rock. The rite was directed against the Jurua spirits.

He also had a superior knowledge of magical properties of objects and substances (obtained from spirits, though a lesser degree of knowledge existed with by everybody, such as magical properties of minerals, plants, animals, scarification and the most important one: fire,

3. PAPUA SHAMANS

The Papua shamans⁶⁸ of New Guinea and the islands east of it are characterized —as far as the great diversity of the cultures involved allows to generalize— as male (also female) medicine men or sorcerers who use dreams and soul journeys to harm or to heal the source of illnesses.

Initiation does not appear to be stressed, and consequently, Eliade does not classify them as shamans.⁶⁹ However, for example on Dobu, an island of E. New Guinea, the shaman is clearly regarded as 'burning' and his magic is connected with heat and fire. He has to keep his body 'dry' and 'burning' and therefore drinks salt water and eats spicy food.⁷⁰ Similarly, on the Salomon Islands, such sorcerers are regarded as *saka* 'burning'.⁷¹

It appears, thus, that the same basic concepts of heat and healing are underlying features of Papua shamanism, and that it is not simply connected just with magic, as Eliade believes.⁷² Indeed, the

67 ott, J. The Keys of Power, 1932, repr. as: Indian Ritual and Belief. The Keys of Power, Delhi 1984

68 Walter and Fridman 2005: 865- 869, 874-9; cf. Trompf 1991: 127.

69 Eliade 1954: 346; he attributes the lack of an 'actual shamanistic tradition' to the prevalence of secret societies and their initiation rituals.

70 Eliade 1954: 347.

71 Eliade 1954:438.

72 Eliade 1954, 438; 356.

Papuas believe that illness and misfortune are caused by evil spirits, *masalai*. They stick to a person's body and poison it. Shamans are then called to expel the spirits from the afflicted person. Papua shamans also perform rain-making ceremonies and can help in the hunt.

4. AUSTRALIAN SHAMANS

Australian shamans⁷³ (*karadji*, or *maban*), usually called 'clever men', undergo, like their Andamanese counterparts, a symbolic death and descent into a cave or an ascent to heaven. Like the San shamans they do so, however, by riding on the Rainbow Snake.⁷⁴

In their transformation to shaman, their internal organs are removed and a new set is inserted consisting of stones or of small rainbow snakes and crystals.⁷⁵ (This procedure symbolizes the transformation of consciousness from physical to psychic levels; these fractured crystals signal that the stone resonates powerfully with the primordial energies of the Rainbow Serpent.)

As elsewhere in the shamanic world, certain spirits or personal totems, sometimes located inside his body, act as assistants. Such inserted assistants can be pulled out and can travel.⁷⁶

In some detail: most typical are the following procedures:

1. Symbolic death and ascent to heaven⁷⁷

- the shamanic master changes into a skeleton,

- puts the shrunk candidate (at the size of a newborn) in his pouch on his neck,
- rides, astride, on the Rainbow Snake, climbs upward
- on reaching the top, he throws the candidate into heaven, thereby killing him.

2. in heaven, he inserts small rainbow snakes and crystals into him

- he brings him back to earth on the Rainbow snake;
- again, crystals are inserted.

3. finally, he awakens the candidate by touch with a magical stone. —We will now look at a few specimens of Australian shamanism.

Aranda⁷⁸ (Central Australia)

They insert magic crystals into the body;⁷⁹ a cave near Alice Springs is used for the ceremony:

- a spirit throws an invisible lance, from neck to tongue [producing a really visible hole!], and from ear to ear;
- the candidate falls down dead; his internal organs are removed; a new set of stones is inserted; inside him a lizard of great power; (with other tribes it takes the form of an eagle-hawk).
- the candidate returns to life as insane; this ends after painting himself, a few days later...
- * Other, lower level shamans, are taken *underground* by a spirit:

73 The term shaman is not frequently used for them; instead "medicine man, clever man, man of high degree, etc." (locally, *karajji*, *wireenan/walamira*, *wingirin*, *kuldukke*, *banmanm/barnmarn*, *mabarn*, *marrngitj*, *margidjbu*, *mekigar* "one who sees", etc.) Some scholars do not regard them as shamans at all as some aspects of Siberian Shamanism are missing; some women also act as shamans. See L. Hume in: Namba Walter and Neumann Fridman 2004: 860-865, Eliade 1951/ 1954: 135.

74 A similar concept is found with the Mayas: the vision serpent (and the double-headed serpent bat), as a path of communication between the two worlds (earth and the Otherworld, see Walter & Fridman 2004: 20)

75 Detailed discussion in Eliade 1954: 54 sqq.; cf. quotes in Lawlor 1991: 374.

76 In N. Kimberley area, the incipient shaman is swallowed by the Rainbow Snake or scum from the snake's pool is inserted (as snake egg) into his navel and grows inside him.

77 Eliade, *Schamanismus* 135.

78 Campbell I 2 : 169:

79 Lawlor (1991: p.374) states that A. P. Elkin compiled descriptions of Aboriginal initiations from diverse clans and distant tribes and found, beneath the innumerable variations, underlying universal themes. The most common was the

- small crystals of other shamans are put into a spear thrower: they are placed/pushed along from the front of his legs upwards to his breast bone, scouring him 3 times: they are described as "pressed into his body"; further into his head, then into his arms;
- a pointed stick is inserted under the nail of the middle right finger; this is repeated; then the tongue pierced,
- the body is painted;
- finally, the adept returns.

Wiradjuri⁸⁰ (New South Wales)

- The master inserts crystals into the body of an initiate, lets him drink water; he can see the spirits now;
- the master leads him to his grave, the dead give him magical stones;
- he meets a snake, this becomes his totem; the snake leads him into the earth, where he meets other snakes, they rub him = giving him powers;
- then, the master leads him to Baiame, the highest being (sitting on a throne of crystal);
- both master and adept ascend on a rope, until they meet the bird of Baiame;

they enter through the door to heaven, which is quickly opening and closing (like the seam of the sky in the old Indian text *Bṛhadāraṇyaka Upaniṣad*) 3.9, and like the Ainu heaven). If they are touched by the door, they fall down to earth.

Other tribes:

- The candidate, blind folded, is brought to a rock, with a quickly closing door;
- both the master and the candidate enter,
- the candidate opens his eyes and sees a bright room with crystal walls;

implanting of a resonant substance in the body. The insertion of quartz crystals or *mabain* into the body of the adept is a consistent initiatory theme.

⁸⁰ Eliade, *Schamanismus* 139

⁸¹ But it can also include other minerals such as australites, mother of pearl, and blood, ochre, feathers, Desert Rose, seeds, etc.

⁸² Eliade 1954: 356 on shamanistic heat in general.

⁸³ Dempwolff, Otto, 1871-1938. *Die Sandawe : linguistisches und ethnographisches Material aus Deutsch-Ostafrika*. Ham-

- he receives crystals and the knowledge of their use;

- then he is brought back, hanging on a rope.

Still others:

- The candidate has to climb a mountain,
- then continues on a ladder, or a spiral staircase.

The powerful objects, *maban* or *mabain*, give the shamans their magical powers. These usually are quartz crystals.⁸¹ As mentioned, *maban* is used and (spiritually) "inserted" into the body of the apprentice. The Aborigines look for quartz crystals with internal fractures that produce vivid, rainbow refractions. These indicate that the stone resonates powerfully with the primordial energies of the Rainbow Serpent.

The Australian shamans function as healers having contact with spiritual beings; they are involved in initiation and other secret ceremonies. However, they are also enforcers of tribal laws, keepers of special knowledge and may "hex" to death one who breaks a social taboo by singing a song only known to the "clever men".

§ 5 SHAMANIC "HEAT"

Most interestingly, the Bushmen, Andamanese and Australian Aborigines talk of a power released as 'heat' and as moving up the spine; and, they have to learn to bring it under control.⁸² This is in spite of some differences in the actual shamanistic performance: communal dance with music with the San (and apparently the Sandawe),⁸³ or the more casual initiation of the Andamanese by visiting the forest. (Of course, we have to take into account that Radcliffe-Browns' record may be incomplete as he could hardly contact any living shamans even in his time. Once closer contact with the few hundred surviving Jarawa or

Sentinelese is established, we may know more.)

However, the insertion of crystals into the body of the shaman is found with the Papuas,⁸⁴ the Semang, the Australian Aborigines (and some South American Indians),⁸⁵ vouching for an old date of this practice. Note also that both the San shaman and the Australian ones move up to heaven on the Rainbow Snake.⁸⁶

On closer inspection, this image may well be one of the most original ones involving shamans: * we have the 'external' movement of the shaman, whether in Siberia or in the southern regions from the San to Australia: this takes him or her to heaven along the (world) tree, or a certain path, led by a dog or raven or on the Rainbow Snake.

* the same is internalized as the upward movement of internal heat, from the lower part of the spine upwards.

If we now add Indian Yogic materials, this heat is generated at the lower end of the spine, in the *guhya* region between penis and anus. It moves upwards through several centers (*cakra*) up to the head and through an imagined hole in the skull (*brahmarandha*) to a final *cakra* above the head.

The movement of yogic power is often de-



The *cakras* in Yoga

scribed as the "awakening of the snake," coiled up at the bottom of the spine, of *kundalinī* power,"⁸⁷ which reminds of the rainbow snake inside the Australian shaman's body. To be compared is cf. Yogasūtra 3: "On divine powers", mentioning the navel, throat, chest, head, and heart.⁸⁸

(Alternatively, *mūladhāra* at pubis, *svādhiṣṭhāna* at navel, *manipūra* at stomach, *viśuddha* at nose, *ājñākhya* at skull).

However, there are a number of 'powers' (*śiddhi*) that arise from meditation such as: levitation, walking on water, distant hearing, passing through space, becoming as tiny as an atom.

⁸⁹However it is cautioned that "visits by invisible

burg: L. Friederichsen, 1916. 180 p. : ill. ; 27 cm. (Abhandlungen des Hamburgischen Kolonialinstituts ; Bd. 3 IV Reihe B, Völkerkunde, Kulturgeschichte und Sprachen ; Bd. 19.

84 Detailed discussion in Eliade 1954: 54 sqq.; cf. quotes in Lawlor 1991: 374

85 Eliade 1954: 62.

86 A similar concept is found with the Mayas: the vision serpent (and the double-headed serpent bat), as a path of communication between the two worlds (earth and the Otherworld, see Walter & Fridman 2004: 20).

87 Note again that some scholars regard this kind of experience as a body-based cosmology, and some of its aspects, such as soul flight, as symbolism that presents the experiences of dreams. (It be a symbolic system that even predates language and it independent of it, as is indeed desired). See Walter and Fridman 2004: 188

88 3.28 By self-control on the navel arises knowledge of the constitution of the body. 3.29 By self-control on the pit of the throat one subdues hunger and thirst. 3.30 By self-control on the tube within the chest one acquires absolute steadiness. 3.31 By self-control on the light in the head one envisions perfected beings. 3.33. Self-control on the heart brings knowledge of the mental entity.

89 3.38 By self-control of the nerve-currents utilizing the lifebreath, one may levitate, walk on water, swamps, thorns, or the like. 3.39 By self-control over the maintenance of breath, one may radiate light. 3.40 By self-control on the relation of the ear to the ether one gains distant hearing. 3.41 By self-control over the relation of the body to the ether, and maintaining at the same time the thought of the lightness of cotton, one is able to pass through space. 3.42 By self-control on the mind when it is separated from the body- the state known as the Great Transcorporeal- all coverings are removed from the Light. 3.43 Mastery over the elements arises when their gross and subtle forms, as well as their essential characteristics, and the inherent attributes and experiences they produce, is examined in self-control. 3.44

beings" detract.⁹⁰

Note also that Yoga is not an original Indo-Iranian practice, but obviously something gradually acquired by Indo-Aryan speakers in the Indian subcontinent. The first occurrence of the word *yoga*, not in its original meaning of 'yoke for oxen, etc.' but in its technical sense of what we now know as "Yoga" is only in the middle Upaniṣads, that is (a few) hundred years BCE.

It is also notable that the *siddhi* powers gained by yoga, such as 'flying' etc. (like 'flying' (rather, hopping) in Transcendental Meditation) must be *brought under control* in classical Yoga (Yogasūtra III), as they are regarded as detractions from the aim, the achievement of mental equilibrium (*śamādhī*). — On the other hand, shamans of all shades actually believe to fly upwards/downwards.

All of which would indicate the "primitive" — or rather "perennial" — origins of some forms of Indian (*kuṇḍalīnī*) Yoga. Nothing is really new or unique here: this form of Yoga is just the preservation — and subsequent practical and theoretical elaboration in medieval India — of some Stone Age spiritual techniques.

The medieval and modern Indian end-product, *Yoga*, however, is very different from classical (Siberian) shamanism: not just socially, as has already been mentioned, but also in its very nature: shamanism usually is 'ecstatic', Yoga normally is the opposite, it is 'enstatic',⁹¹ some forms of left-handed Tantra obviously excluded.

It is important to note also that two of the three

indigenous peoples (Andaman, Australians) practicing early shamanism involving inner heat are part of the Out of Africa trail, at c. 65,000 years ago. The Bushmen, for their part, must have come from much farther north, closer to the apparent human homeland in Ethiopia: their relatives, the Hadza and Sandawe in Central Tanzania, still attest to such northern origins; they have what looks like a shamanic dance, though little is known about their spiritual life.

According to recent genetic findings, the Andamanese are genetically very close to the Bushmen, both going back straight to the (E. African) root of our African ancestors, though the Andamanese may have been mediated through an intermediate stay in the subcontinent where their (much later) relatives the Rajbanshis and Kurumba still survive (both with variants of the male, very early (NRY) haplogroup D that is also found in many or most Tibetans, Japanese and Ainu, — all in Asian refuge areas.

In sum, we deal here with a very ancient form of shamanism that has undergone some local developments over the past 65,000 years or so, but that still is remarkably consistent in its forms:

- * the shamans go into trance though contact with the spirits
- * they manage 'heat' rising up from the lower spine
- * they move upwards to heaven (and downwards to the netherworld)
- * they use the powers gained in contact with the spirits for healing and enhancing the hunt

Thereby one may become as tiny as an atom as well as having many other abilities, such as perfection of the body, and non-resistance to duty.

90 3.50 When invited by invisible beings one should be neither flattered nor satisfied, for there is yet a possibility of ignorance rising up. — Note also that 4.1 Psychic powers arise by birth, drugs, incantations, purificatory acts or concentrated insight. 4.27 Distractions arise from habitual thought patterns when practice is intermittent. 4.28 The removal of the habitual thought patterns is similar to that of the afflictions already described. 4.29 To one who remains undistracted in even the highest intellection there comes the equalminded realization known as The Cloud of Virtue. This is a result of discriminative discernment. — Translation by BonGiovanni, - <http://www.sacred-texts.com/hin/yogasutr.htm>; <http://www.sacred-texts.com/hin/ysp/ysp06.htm>

91 Dietrich Langen. *Archaische Ekstase und asiatische Meditation mit ihren Beziehungen zum Abendland*, Stuttgart: Hippokrates 1963 : 129.

Against this background, "classical" Siberian shamanism is a later, a very Late Paleolithic or rather a Mesolithic development, in terms of my comparative mythology, one of the Laurasian group (Eurasia and the Americas), while the southern groups (of Gondwana Land) have preserved older forms to this day.

§ 6 SPREAD OF 'CLASSICAL' SHAMANISM

§ 6.1 SIBERIAN SHAMANISM

Shamanism, as we know it, especially its Siberian form, has been subject to a large number of studies, including the classical, one of Eliade and the work of Hamayon.

In Classical Siberian shamanism, such as that of the Tungus,⁹² the initiate shaman's flesh is cut up, his bones are separated and eaten by the spirits;⁹³ finally, the spirits drink the blood of a reindeer and give the shaman some blood to drink. Only after the ancestors have given up his body, he begins to shamanize.

With the Inuit (Eskimo), too,⁹⁴ such transformation is effected when the shaman is eaten by a bear, limb by limb. Among the eastern Siberian Palaeo-Asian populations of the Koryak and Chukchi⁹⁵ we find transvestite shamans, representing an androgynous, unified being. Therefore the Chukchi male and female shamans

ritually and psychically and "to some extent even physically change their sex," usually in early youth,⁹⁶ which reminds of Australian spiritual techniques.

Similar techniques are found in the Americas, also further south, up to the Amerindians of Tierra del Fuego, who were Neolithic hunters until c. 1900, when they were exterminated by South American ranchers.

We cannot again pursue the varieties of "classical" Siberian shamanism and its American descendants here; its basic outlines have been described in the initial sections. Suffice it to say that one or the other form of shamanism is also found among the Eskimos, in Manchuria,⁹⁷ Korea (female: *mudang*), Japan including, importantly, Okinawa⁹⁸ central Asia, in some Catholic traditions of the Austronesian Aborigines of Taiwan,⁹⁹ in the Nepalese Himalayas (Maskarinec), in Tibet (for example in the Nyingma school with married Tantric Ngakpas or Ngakmas/mos),¹⁰⁰ in Vietnam, etc.

Among much of the nomadic tribes of Central Asia, the most common form of shamanism is Tengric shamanism. T(e)ngri is the Turkish word for the main god, usually located in a mountain system such as the Altai or the Tien Shan (Mountain of Heaven).

In some cases it is associated with some sort of 'reincarnation'. For example, dogs (useful herd

92 Walter and Fridman 2004: 532 - 652; 551 sqq; 582 sqq; 608 sqq; 615 sqq; Campbell 1988: I 2: 172

93 Cf. Thor's Ram (in the Icelandic Gylfaginning) and in the ancient Indian text, *Bṛhadāraṇyaka Upaniṣad*, about the gods who best like to 'eat humans'.

94 Campbell 1988: I 2: 167.

95 Campbell 1988: I.2: 173.

96 Among the northern (Kham) Magar of Nepal this is not necessary as both male and female shamans are found, frequently in alternating lineage, from male to female to male, see Oppitz 1991.

97 The last shaman of the Oroqen, Chuonnasuan (Meng Jin Fu) died in October 2000.

98 Female Nuru (public or communal ceremonies) and Yuta (civil, private matters). There is a distinct Miyako shamanism.

99 O. Lardenois, Shamanism and Catholic Indigenous Communities in Taiwan

100 Ngakpas were often used to rid the villages of demons or disease, creations of protective amulets, the carrying out of religious rites etc. The Ngakpas should however, been grounded in Buddhist philosophy and were of equal status as lamas with monastic backgrounds. The monasteries however depended upon the excesses of patrons for support. This situation often led to a clash between the more grassroots and shamanic character of the traveling *Chödpa* and *Ngakpa* culture and the more conservative religious monastic system.



BMAC seal, c. 2000 BCE

animals) carry messages between the worlds, and therefore they are/were sacrificed by shamans of the Kukchi/Koryak in Siberia, as seen by the Smithsonian expedition of the 1920s; cf. also the site at Samara in S. Russian site, excavated by David Anthony.¹⁰¹ They were sacrificed in rituals too, as to seal intertribal agreements, such as that between the Khan of the Bulgars and the Byzantine emperor Leo. (According to the Mongols, dogs should be well treated, as they reincarnate as the next generation and if they have been abused, your children will be resentful and difficult).

Also, animals, such as white horses, eagles, big cats, work by temporarily appear when the shaman is in contact with the messenger, as well as some divine stones, trees, water sources; the smoke of the hearth of the yurt may briefly be the tree of life.

§ 6.2 INDIA AND THE CENTRAL ASIAN CONNECTION

We will spend some time with a discussion of the special forms shamanism has taken in the Indian subcontinent, given that it has preserved some archaic forms (Andamans) and has further devel-

oped them in Kuṇḍalinī Yoga. One of the earliest pieces of evidences, next to a depiction of a shamanic drum of c. 2000 BCE in a S. Central Asian (BMAC) seal, with a typical Indus Civilization scene on the backside.

Some Vedicists for years now have looked for indications of shamanism in early Vedic texts (c. 1200-500 BCE). Indeed, a number of features can be listed, from the RV shaman flying through the air, having drunk poison, or the self-praise of Indra as a little *laba* bird, touching heaven and earth with his wings,¹⁰² and the role of the dog (Saramā) as *psychopomp* for the shaman, to the Vājapeya ritual where the sponsor of the ritual (and his wife) have to climb up a post and sit one a wheel for a day, while getting pelted with bags of salt, or the vision of Bhṛgu, the son of the god Varuṇa who sees a 'reverse world' in which humans get cut up by trees and devoured by animals.

Further there is the world tree (Plakṣa Prāśravaṇa), 9 levels of heaven and earth, the movement up to Brahma's palace (Kauṣitaki Upaniṣad U 2) across a bridge, with 'hellhounds', the "pilgrimage upstream of the Sarasvatī / Yamunā up to Plakṣa, or beyond the gap at the eastern

¹⁰¹ <http://users.hartwick.edu/anthonyd/ritual.html>

¹⁰² G. Thompson shows that the ātmastuti "hymn of self [praise]" in which a Vedic poet-priest impersonates a god and compared this impersonations with similar performances from well-known Central Asian ethnographic sources. See Thompson, George. Shamanism in the Rgveda and Its Central Asian Antecedents. Presentation at the Fifth Harvard Round Table 2003, May 9-12, 2003. <http://www.people.fas.harvard.edu/~witzel/Thompson.pdf>

end of the world (BĀU 3.9), etc.¹⁰³

The question is how much all of this has come down with the speakers of Vedic Sanskrit from their earlier habitat in western central Asia, from the Urals to N. Afghanistan.

Indeed, in the different strata of the Vedic lexicon, besides the Indo-European, several others can be sorted out. There is evidence of early contact between Indo-Iranians and Uralic (Finnougric) and Yeneseian (Ket) languages, and later on, contact with other people speaking unknown languages of Central Asia (defined by M. Witzel (2003) as Macro-Caucasian), and finally contact with people in the Hindukush region (such as the Macro-Caucasian speaking Burusho in Hunza) who even today exhibit traces of shamanism (below the Islamic surface), and clearly do so among the pagan Kalasha (of Chitral, NW Pakistan) who still are pagan (Witzel 2004). This kind of contact is visible in the loanwords that Old Indic and Old Iranian (and Tocharian) have in common.¹⁰⁴

Now, in the hymns of the Rgveda, there is a strikingly large number of these Indo-Iranian substrate words. There is also a significant set of terms used in the Vedic Soma and horse sacrifice that seem to be substrate words. Even some aspects of the god Indra (otherwise a Zeus figure) seems to have his origins in shamanistic practices that may have been borrowed from Central Asian sources (Thompson). Indra's very name seems to be an Indo-Iranian loanword from C. Asia.

As far as the dog's function as psychopomp, the

leader of the soul of the shaman (and the dead) is concerned, the Greek Kerberos is well known; his Indian relatives are the two old Vedic Hell Hounds, the Śabala, sons of the bitch Saramā, who is a key figure in the myth of finding and then releasing the sun from the Vala cave. In another version of this story, she acts after another messenger, a *suparna* bird (vulture) has failed. Both kinds of animals act as messengers.¹⁰⁵

The Vedic and Avestan hell hound is a horrifying creature with "four eyes," that is the two bright spots above the eyes of a Tibetan style mastiff or Near Eastern dog. A recent paper mentioned above¹⁰⁶ treats the role of Saramā as the *psychopomp* of a shaman. Indeed, this role is still found in many shamanic myths of northern Eurasia. Just as the Sārameya dogs guard the path downwards to the Netherworld, so do they on the way to heaven. Drawings show how a dog leads the shaman on his ascent.¹⁰⁷ The eastern Siberian Chukchi and Koryak also offer their best dogs.¹⁰⁸

D. Anthony's excavations at Samara, west of the Ural mountains, have brought to light a very large number of elaborate dog sacrifices.¹⁰⁹ The same role is played by the bear in Ainu mythology. Indeed, the bear is often regarded in northern Eurasia as the 'dog' of the gods. The bear, an Ice Age human prey, has been dealt with above. In southern areas, such as the Hindukush, it has been substituted, for example by the fox.¹¹⁰

As mentioned some images in the Upaniṣads

103 Note the work of Oguibénine (1968), Meisig (1995), Filippi (1999) and Torcinovich (1999), as well as more recently by G. Thompson (2003).

Meisig, Marion. *Die schamanistische Seance im Rgveda (RV 10.108). Mitteilungen fuer Anthropologie und Religionsgeschichte (MARG)*. [Münster: Ugarit-Verlag], 10, 1995, 119-142.

104 G. Thompson is engaged in a study of all of the lexical items that have been proposed as belonging to these substrate languages in all of their attestations.

105 Cf. E. Mortensen 2003, on the Eurasian and Laurasian raven; cf. S. Thompson, Motif index A2232.8. Dog's embassy to Zeus chased forth; etc. (Cf. A2471.1.)

106 Meisig 1995.

107 Campbell 1988: I 2: 167, with illustration.

108 Campbell 1988: I 2: 175.

109 David Anthony at: <http://users.hartwick.edu/anthonyd/ritual.html>.

110 With the Kalash, see Witzel 2004.— Note also the Chinese, N. American Indian fox fairies.

point to the travel of the soul, both to 'heaven' and to the netherworld (as in Bhṛgu's inverted world, JB: images of dissecting and devouring humans).

The question rises whether some concepts found in late Vedic literature (Brāhmaṇas and Upaniṣads) are due to Iranian influences that have come in with the Śākya and are visible in other features (kurgan style graves, such as the stūpa), etc.

All of this is not directly connected to *yoga*, which is not an original Indo-Iranian practice. It is not an "ecstatic" but an "enstatic" phenomenon. However, there are certain links, as we will discuss now.

§ 6.3 TANTRA

This early Vedic shamanic trend was later on picked up again by Tantrism in the early Middle Ages. Tantrism is a very diversified tradition. (Buddhist Tantras are seen to be later than and dependent on Hindu Tantras). Magic, sexual practices, repulsive or otherwise forbidden substances, and ecstasy feature widely.¹¹¹

The Himalayan area was long thought to be a candidate for origins, but the possible root of Tantrism is likely in ancient ascetic practices (is hinted at in Hindu and Buddhist texts), and derived from local cults, without a common ideology or terminology, some extent shamanistic. They were, like yoga, normalized at a later stage, ("Sanskritized"). However, even with lack of evidence for much of the 1000 years or more of this development, it nevertheless seems that shamanistic changes in an adept and communication with her/his (animal) familiars or spirits/gods (as mentioned, not "possession") are linked with earlier Indian religion.

Typical for the later (post-Upaniṣadic) Indian tradition, however, is the ritual 'identification' of the practitioner with a deity, both in the ritual

as well as on the psychological level, seen as a prerequisite for attaining supreme union with the divinity. As in shamanism, it is a prerequisite for the acquisition of the (shamanic/Tantric) power allowing to carry out divination, curing and exorcism.

Similarly to shamanistic initiatory practice (that is, after the adept has shown initial signs of contact with the spirits such as shaking), a Tantric master, like an older shaman, directs the adept through a series of initiations and empowerments, from a state of ignorance to ever deeper knowledge, understanding and realization. Central are visualization exercises during which deities are made present. In the process, the body of the adept becomes subtle and deified. This is similar to the shamanic process in which the body of the adept is substantially changed, sometimes even devoured by the spirits, and then recomposed. (Indian initiations always involve features of ritual 'death' and rebirth. This is very similar to the long, process of becoming a shaman, through symbolical death, dissection and re-assembly).

The Tantric ritual process symbolically begins with a stage usually called "the entry into the Maṇḍala" involving the 'killing and rebirth' of the adept, during which the adept loses individual human consciousness, while striving for (post-Upaniṣadic) divine identity.

The Tantric traditions also possess vast mythologies and extensive legends and folklore about famous Tantric Masters, magicians and perfected ones, Nāths and Siddhas. They describe the ritual process and its parallel activities in the human mind. The masters have abilities that are clearly related to shamanism, such as ability to fly, to become invisible, and to contact supernatural beings, often female, in order to gain knowledge and receive initiations. These powers, like those in the initiations of a new sha-

111 Culminating in the 11th cent. in Kashmiri Shaiva Tantrism with monist speculation and extremely rich symbolism using the human body, the nature of language and words, and the ritual process of recreating oneself and attaining absolute reality (Siva). Tantrism uses a symbolically rich dress, instruments such as Yantras and mandalas, geometric patterns or schematic pictures of the palaces of gods and Buddhas, powerful letters and words, etc.

man, are gained after considerable difficulties, pain and suffering.

In Hindu and Buddhist Tantrism, a certain action in the ritual process, the *āveśa* or entering (into the Maṇḍala), can be compared with shamanic, adept-initiated contact with his/her (animal) familiar spirit (again: this is not "possession" by a spirit). In Tantra, the ritual and psychological transformation of the performer into the deity occurs during the *āveśa* process. In Hindu texts from the Upaniṣads onwards, in Kashmiri Shaiva texts, such as the exegetical commentary *Tantrāloka* by Abhinavagupta (11th cent.), *āveśa* ranges from the deity's subtle penetration of the ritualist, to the complete captivation of the ritualist by the deity during the initiatory entrance into the *maṇḍala*. As with shamanistic trance, this is an entering of the deity (in the psychological sense), as the adept trembles, shakes and loses consciousness (as I have seen even with a Gelugpa medium at Lhosar, at Svayambhunath, Kathmandu). This stresses the identification with the deity, leading to the acquisition of the divine power and ability, just as the shaman adept does with his familiar.

In Buddhism (like in Hinduism), the central process is to ritually transform oneself by creating a subtle body, to visualize the deity, and then to become one with it. (The *āveśa* ritual in Kālacakra-Tantra commentaries, etc. or a few accounts of Tantric activities in Tang period China (Fire rituals, homa manuals by Amoghavajra *et al.* 6th-7th cent), and thence in Heian time Japan (Shingon, Tendai schools).

For example, in a sub-commentary of the Kālacakra corpus, the *Sekoddeśaṭīkā* the initiation or consecration, *abhiṣeka*, is carried out in the *maṇḍala*, which is purified and protected from demons; this purification involves the ritual instruments as well as the adept and the other participants. After the purification, the deities are invoked, and contact with them is established,

similar to shamanic entry into trance, once the shaman has made contact with a particular spirit (familiar). When the adept enters the *maṇḍala*, *krodhāveśa*, "the entrance of Wrathful one" occurs. The adept has acquired all the qualities of the god and has lost all sense of modesty and shame, and behaves so because the deity has entered his body and is in control of his body and mind. (This seems to be closer to actual 'possession', but it is self-induced, as in shamanism, not by the deity/spirit itself, as in actual possession.) This is also seen in the contemporary Newar Buddhists in Nepal (D. Gellner 1992) the participants, especially the women, are apt to tremble and shake, that is show signs of possession, when about to enter the *maṇḍala*.

If this state ceases by itself, the ritual goes on with further purifications, after which the candidate finally is led into the *maṇḍala*. If it does not cease by itself, the master responsible for it stops it, typical for the Indian cultural sphere, — with appropriate mantras. (This state is also used for prognostication, as in shamanism, and as in the Chinese examples below).

Buddhist Tantra outside India

China

The *āveśa* ritual are found in Tang time texts with the Indian Tantric masters Vajrabodhi and his disciple Amoghasiddhi (see above). It is said that a princess was dying and lying unconscious. The Tantric master chose two young girls, wrapped their faces with red silk, and had them laid out on the ground. Vajrabodhi then entered into meditation and sent the two girls to Yama, the lord of the Land of the Dead, who allowed the princess's spirit to return for a short while. Vajrabodhi thus accomplished something similar to what a Siberian shaman accomplished by his own descent to the netherworld.¹¹²

112 In other episodes, the Tantric master used children in a similar way. After fasting, the child was placed on a platform,

Tibet

In reverse, the beliefs and rituals of *dpabos* of Tibetan shamanism have a number of features that are derived from Tantric Buddhism. The human body contains "channels" along which the consciousness can leave the body and gods enter and take 'possession'. The spirit mediums carry a crown almost exactly like the one used by the Tantric practitioners, and that the mediums, just like the Tantrics, have a close relationship with female supernatural beings, who protect them during their séances, and who teach them inspire them – are alike between shamanism and Buddhist Tantraism. Similarities also exist between the Tantric visualizations of the deities and the spirit mediums' visions of their gods.

Shamanistic *āveśa* involving exorcism and divinations are features of Tantrism. The term for divine 'possession', *āveśa*, covers a range of meanings, from 'possession' in the psychological sense to the subtle and mystic union or merging with the supreme reality. Tantric identification with a god may have some roots in older (non-shamanistic) possession cults, but it certainly has its predecessors in Upaniṣadic union with the deity. Even Buddhism, which otherwise stresses meditation and calming of the mind, contains elements of possession and similar phenomena. Further, the meeting of Indian Buddhism with Central Asian, Tibetan and Chinese culture led to syncretism and absorption of local ritual practices, sometimes of a shamanistic nature.

§ 7 SUMMARY OF OLDER SHAMANIC TRADITIONS

(details assumed for Siberian shamanism as per entry; not specifically recorded below; some data for Eskimo, Siberians only)

INITIATION

Papua: not stressed

a. summons in solitude from spiritsof wilderness
Andaman (also epileptic fits, fainting)

b. together with songs

San (Bushmen), also with dance, musical instruments

Eskimo

Tungus: cf. "when I sing, [illness] disappears"

c. illness or death if not heeded

Bushmen: prolonged initiation, managing of heat

Tungus: "sick for one year"

d. spiritual familiar involved with call

Bushmen: role of alites = springboks (flying bucks, "former humans" changed by mantis)

Andaman: spirits of jungle initiate in jungle

Australia: personal totem (rainbow snake, lizard, eagle hawk)

inserted inside body, pulled out for healing & travel

Eskimo: "human" helpers

Tungus: "forefathers forced me..."

e. with inward physical transubstantiation

Bushmen: difficult control of *ntum* force inside, moves up spinal column =moving upwards to heaven on rainbow snake/spinwebs; as flying alites/springbok (also after death)¹¹³

No death and dissection, reconstitution, but trance collapse;

Gradually learning to manage heat

and its eyes were covered while mantras were recited. Then the child started to shake, and those present could start to ask the deity questions concerning their future and otherwise hidden things). – Thus, the Tantric master first identified himself with the deity, acquiring the power to invoke other gods and make them take possession of the children, in order to answer questions. This model, a master controlling his spirit mediums, has molded segments of Chinese shamanistic religions and Daoism.

113 A widespread Gondwana concept of a rainbow snake that one can jump on and reach heaven. In C. Australia identified

Andaman: *oko-jumu* 'dreamers' by dying & re-
turning to life/ or by dreaming / or by meeting
of spirits in jungle;

contact with heat / power *ot-kimil*

Semang (Malaya): inserting small crystals into
body

Papua: shaman is 'burning'

Australia:

- symbolic death and ascent to heaven (or underground)
- on Rainbow snake (or by rope) into heaven,
- killing adept (door opens and shuts quickly);
- internal organs removed, inserting small rainbow snakes & crystals (snake/eagle hawk becomes totem inside body)
- return on Rainbow Snake; more crystals inserted;
- awakening

Eskimo: "eaten by bear, limb by limb"

fasting, sexual abstinence, isolation, no warmth,
etc.

Tungus: Adept shot, cut up, bones separated;
spirits eat his flesh; shaman spirits drink blood
of reindeer, also adept;
ancestors give up his body, begins to shaman-
ize

(Decomposition, preserving skeleton found
from Iceland to India: Rgveda)

Transvestite Shamans

Chukchi/Koryak: androgynous; elsewhere 'soft
men'

Learning period, with other shamans

Bushmen: older experienced medicine men con-
trol *ntum*,

call 'traveling' adept back into his body

Andaman: sketchy information on teachers

Australia: important role of master shaman (see
above)

Siberia: *ditto*

POWERS

Bushmen: power: heat *ntum*, controlled by med-
icine inside the body

Andamans: power in all 'hot' objects: *ot-kimil*;
danger due to contact with this power by
oko-jumu 'dreamers'

Semang: quartz crystals inserted into body

Australia: power by inserting *mabain* (quartz
crystals, etc. due to light fractures, similar to
rainbow snake)

Eskimo: *silá* 'soul'/*silam inua* 'soul of the uni-
verse', invisible;
distant but also inside oneself,

f. sees/moves through barriers/space

Bushmen: moves down, then up to heaven/
godon rainbow snake
or by taking hold of spiders' silk strings /as fly-
ing springboks

Andaman: nothing recorded, just contact with
spirits in jungle

Australia:

inside a lizard/rainbow snake of great power;
in other tribes: eagle-hawk; the tree
has an important role in Australian ritual.¹¹⁴
shaman moves down and up with help of these
animals, also ladder/rope

Siberia: upward movement along world tree or a

with the Milky Way. – Note that Pygmies have a concept of a rainbow serpent (Zuesse 1979:) p. 45.). Baumann (1936: 386.) regards this motif as well as some others as having drifted in from their neighbors. Ditto the Austro-Asiatic Munda people, see Ponette 1968: 13 and South America. – Note also the appearance in other southern traditions: see the map in Berezkin 2007 and note Thompson 1993, Motif A665.6. Serpent supports sky. S. Am. (Yuracare). It is also found in Africa, the Andamans, Australia, etc. See Campbell 1988 I: 141, Nikonov 1980 and Berezkin 2007. For Africa, see Baumann 1936: 116 (Uelle Pygmies), 212 sq (Ewe), 77 (Kanioka), 197 (Kikuyu); 218 sq (Hausa), 324.1; cf. Zuesse 1979: 45 for the Pygmies. The motif may be very old, and of Pan-Gaeian origin.

¹¹⁴ For S. Australia see the illustration in Smith 1996: 175; for the Arunta tribe, Lawlor 1991: 75, and maybe 226, 361. Cf. the use of the double *tjurunga*.

path: dog guide, Saramā

g. mediate between humans and supernatural

Andaman: participatory, by contact with power and healing etc.

Australia: by traveling in trance (helped by rainbow snake, eagle hawk familiar)

Chukchi/Koryak: Intervening with anthropomorphic sky gods, and anthropomorphic enemy spirits intercepting sacrifices

h. advise/guide in hunting

Tungus: Ancestors help in hunting

i. healing: massage, suction, flight to heavenly source (moon, etc.) of it;

Bushmen: use of *ntum* power

Andaman: use of heat, also plants, objects

Papua: evil spirits expelled

j. sorcery: injuring by projecting stones, etc. into enemies

k. magic by tricks, necromancy: Australia

l. assuming form of animals, mountain.

m. ~ power of animals, mountains, trees, etc. to shamanize : Andaman, Australia

n. ~ power to influence weather: Andaman

o. rivalry/malice between shamans : Andaman

p. schools of them search/foster new shaman talents:

role of teachers in San, Andaman, Australian societies

q. perfected shaman initiate the young: Bushmen, Andaman, Australia

r. shaman relies on dreams for information and warnings : Andaman

2. animal costume

Bushmen: — but see below: animal forms

Andaman: merely head decorated with palm fronds

Australia: —

~ d. spiritual familiar involved with call

~ l. assuming form of animals

~ m. power of animals, etc. to shamanize

3. identification with bird

~ d. spiritual familiar involved with call

~ l. assuming form of animals

Bushmen: humans were springboks, changed by power of mantis; their spirits are flying springboks again, when going to eternal 'bokveld' after death. – use of rainbow snake

Andaman: —

Australia: rainbow snake, lizard or eagle hawk inside, can be taken out and travel

4. ecstatic trance

~f. see/moves through barriers/space

Trance with Bushmen, Andaman, Australians

Flying: with Bushmen, Andaman, Australians

World Axis:

Andaman: Axis mundi = dipterocarpus tree

(lost/not recorded shamanic practice? = rising heat)

Australia: perhaps the double *tjurunga*; a joint one: "the eternal";

buried in dry stream; role of tree in burial

Chukchi/Koryak: sacrifice rises along it

Tungus: *Tuuru*, Yakut *Sörgö*;

on it sit young shamans in nests;

pelt of sacrificed animals is put here

shaman climbs tree when shamanizing, it grows to heaven

5. master of game animals

~h. advise/guide in hunting

6. master of initiations

with Bushmen, Andaman, Australians

METHODS USED IN SHAMANIZING

1. Ritual dance

Bushmen: communal dance, leads to trance

Andaman: (social dance only), rather in dreams

- ~ p. schools of them search/foster new shaman talents
- ~ q. perfected shaman initiate the young

possibly:

7. wand/ staff [with bird]

Drum:

no drum yet with San, Andaman, Australians, instead music with clapping, clap sticks, etc.

BMAC drum (2400-1600 BCE)

Koryak/Chukchi: drum not yet sanctified

Tungus: drum made from living larch

8. control of magical animal - familiar supporting him (see above)

~ l. assuming form of animals, etc. to shamanize

~ m. power of animals, mtn.s, trees, etc.

9. association with animal —sacrifice

not with San, Andaman, Australians

(where only self-offer of blood to initiates)

§ 8 QUESTIONS ABOUT STONE AGE SHAMANISM

How old is the 'Siberian' and 'southern' version of shamanism? The questions of interest in the context of Eurasian mythology and Stone Age shamanism, include the following. "Classical" Eurasian shamanism is found among a wide range of northern peoples, from the Saami (Lapps) of Northern Scandinavia to the Chukchi in N.E. Siberia with an extension into the Ameri-

cas, and from the Polar Sea to the tribes of Nepal¹¹⁵ and the Dayak of Borneo.¹¹⁶

- What is its relationship with the "shaman" figure attested in Stone Age paintings in S. France and elsewhere?¹¹⁷

- What is the relationship with similar features found among the San (Bushmen), the Andamanese and the Australian Aborigines?¹¹⁸

- Is shamanism related to the Stone Age hunter's societies of the open steppe/tundra of Eurasia, and in how far could it continue among agriculturalists, e.g. in modern Nepal?¹¹⁹

What, then, are the stages in its development?

- In how far is the institution of shamans (whether inherited by family line or not) connected with the (possibility of) transmission of a compact *body of texts*, such as required by the complex Laurasian mythology?

- Is the absence of a Eurasian/Laurasian framework for shamanism – even in areas where one would suspect it, such as Tierra del Fuego¹²⁰ – connected with the absence of shamans/priests?

- Further, the indications of a supposedly old, even Neanderthal, Eurasian bear cult¹²¹ and of the asterism Ursa Maior, as well as shamanism's relationship to the myth of the killing and dismemberment of a primordial being (Ymir, Pangu, etc.) have to be investigated as well. Is the killing and dismemberment of a bear, or the bull/boar in southern climates, a step of increasing abstraction, ultimately leading to that of creation from chaos or the waters/darkness, or even from "nothing"?

Some of these questions will be answered be-

115 Maskarinec 1998, 2004, Oppitz.

116 Eliade 1954: 66.

117 See Walter and Fridman 2004: 16-25, 219-223; note the recently discovered Chauvet cave in the Ardèche region of France, of c. 33,000 BCE (which already has paintings with perspective, Arnold 2003, Geneste 2005, Wunn 2005: 124), Lewis-Williams 2002.

118 Note especially the pointing sticks / or horns attached to heads as in Lascaux, Australian and Bushmen: Campbell I 1: 66 no. 106-7; 93 no. 170; cf. above § 4.5 ('cornea' gestures).

119 Walter and Fridman 2004: 747-750, 767-772, 775-778; Maskarinec 1998, 2004.

120 See Campbell 1988: I:2, or, since the c. 1930, with the pagan Kalash of NW Pakistan.

121 Paulson 1965; Campbell 1988: I 55; Wunn 2005: 84, 132 denies its existence.

low. However, it is best to begin by investigating what testimony can be found by archaeology, in other words: in Stone Age rituals, paintings and sculptures.¹²² Such probing is even more difficult that that by the modern anthropologist — as we can ask only the paintings themselves.

§ 9 STONE AGE ART

As far as archaeology is concerned, we have stone Age objects, plastic art and cave paintings from the Palaeolithic period, that is before c. 8000 BCE (in Europe), depending on the area concerned., for example at Lascaux.

Practices have been assumed for the Paleolithic¹²³ period, and with more emphasis, for the Neolithic period,¹²⁴ for which good archaeological evidence exists.¹²⁵

Early rock art mostly depicts, not surprisingly, the local animals of the Stone Age hunt and later on, from the Mesolithic onwards, also humans in the act of hunting, dance, daily life, and war. We also find some composite human figures, spirits or deities (especially in Australian art). Importantly, for our purpose, there are some early paintings (especially at Lascaux) with depictions of a figure that has been interpreted as shaman or "sorcerer," who is involved in the magic of

the hunt.¹²⁶ It was such "shamans" that will have transmitted Stone Age myths to their pupils and the population at large.

* * *

As discussed earlier, shamans appear in various forms with the descendants of very ancient populations, the San, Andamanese, and Australians. They all mention the difficulty of mastering the force inherent in the calling that often manifests itself as heat that rises up the spine. This obviously is a very old trait of shamanic heat, and the careful management of this 'power' is a fact still known to Yogic practitioners. In its simplest form, it is found with the San, Andamanese and Australians;¹²⁷ it has its most prominent outcome in the various forms of Indian yoga that have been developed, rationalized and discussed in more than 2000 years of oral and written Indian traditions.

In contrast, the "classical" Siberian form of shamanism, with offshoots in N. Europe, South and S.E. Asia as well as Korea, Japan and the Americas,¹²⁸ has some additional characteristics such as the circular frame drum. The raven frequently is the shaman's messenger.¹²⁹

This shamanic explanation of Stone Age paintings has, however, been challenged recently.

122 For a short discussion see Burkert in Narby and Huxley 2001; 223-226.

123 Shamanism in cave art has been asserted by Dickson and Mithen, Jean Clottes. "Shamanism in Prehistory". *Bradshaw foundation*.

124 Karl J. Narr. "Prehistoric religion". *Britannica online encyclopedia* 2008.

125 In November 2008, discovery of a 12,000-year-old site in Israel, the earliest known shaman burials. The elderly woman had been arranged on her side, with her legs apart and folded inward at the knee. Ten large stones were placed on the head, pelvis and arms. Among her unusual grave goods were 50 complete tortoise shells, a human foot, and certain body parts from animals such as a cow tail and eagle wings. Other animal remains came from a boar, leopard, and two martens. It seems that the woman was perceived as being in a close relationship with these animal spirits. The grave was one of at least 28 in a cave in lower Galilee, of Natufian culture, but unlike any other Natufian or in the Paleolithic ones. See: Earliest known shaman grave site found: study," Reuters via Yahoo! News, November 4, 2008; and *Proceedings of the National Academy of Sciences*. – Another recent find is that of a woman in the Czech Republic from the Upper Paleolithic era in what is now the Czech Republic. see Tedlock, Barbara. 2005. *The Woman in the Shaman's Body: Reclaiming the Feminine in Religion and Medicine*. New York: Bantam.

126 Cf. Burkert 1979: 88 sqq. - For a detailed discussion, see Lewis-Williams 2002.

127 Eliade 1954: 356.

128 Walter & Friedman 2004.

129 Mortensen 2003.



Wunn (2005) insists that the various kinds of archaeological data have to be counterchecked.¹³⁰ Three recent prominent interpretations, those of Henri Breuil,¹³¹ André Leroi-Gourhan,¹³² and Mircea Eliade are investigated, disputed and largely rejected.¹³³ Eliade¹³⁴ saw parallels to Palaeolithic

art in the simple hunter's economies that allow for hunting magic and for a 'sanctuary', but, as Wunn criticizes, he used only one painting to illustrate this art: Breuil's much discussed sketch of a painting at Trois Frères,¹³⁵ that of the shaman-like 'Great Sorcerer', of c. 14,000 BCE.¹³⁶

130 Wunn 2005: 115. – Wunn, Ina. Beginning of Religion. *Numen* 47, 2000, 417-452. Wunn, *Die Religionen in vorgeschichtlicher Zeit*. Stuttgart: Kohlhammer 2005.

131 Breuil is the pioneer of cave art studies, perceived hunting and fertility magic in the Franco-Cantabrian cave paintings. His sketches and paintings of cave art have recently been criticized as incomplete, idealizing and idiosyncratic (Lorblanchet 2000: 81 sqq, Wunn 2005: 122). However, most subsequent interpretations rests on his drawings, which continue to be used uncritically.

132 Leroi-Gourhan used a structural method, discovering an organized universe with a fixed 'syntax': all motifs are male/female symbols. (Lorblanchet 2000: 83). Similarly, Annette Maling-Emperaire (1962, Lorblanchet 2000: 83) rather sees themes with a sexual background. Later on, Leroi-Gourhan shifted from sexual interpretations to that of the cave as a sanctuary.

133 Wunn 2005: 116 sqq.; cf. Leonard and McClure 2004: 185 sq.

134 Eliade 1978: 28.

135 Illustration in Campbell 1988 I: 76.

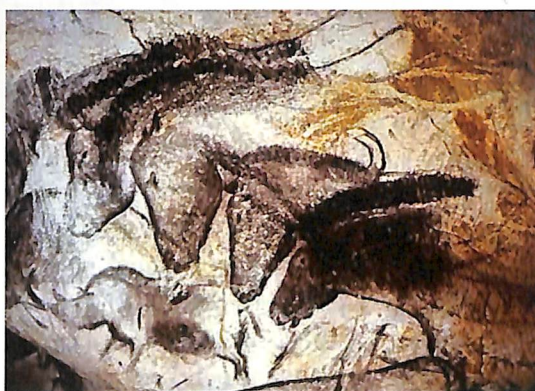
136 For depictions of such shaman-like figures see Campbell 1988: I 1: 74, 78, and I. 2: 156, Gimbutas 1991:176). Leonard and McClure 2004: 186 have a current photo of the 'sorcerer', juxtaposed to Breuil's sketch; the figure is attributed to 13,000 BCE. For another, still older photo of c. 1960, see Dietrich Langen. *Archaische Ekstase und asiatische Meditation mit ihren Beziehungen zum Abendland*, Stuttgart: Hippokrates 1963 : 129.



<http://donsmaps.com/cavepaintings3.html>



<http://donsmaps.com/grottedevillars/bisonsorcerer.jpg>



Chauvet cave: horses in perspective.
<http://donsmaps.com/images/horse.jpg>



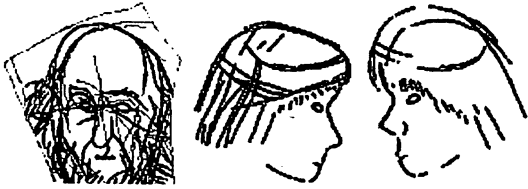
These portraits of humans are engravings on stone slabs at La Marche, Vienne, France, and are more than 14000 years old.

Photo: P. Bahn 'Prehistoric Art'



Grotte de La Marche, Lussac-les-Châteaux (Vienne), Tête humaine vue de face, Grotte de La Marche, Lussac-les Châteaux (Vienne). Tête humaine avec ornement facial. Très profondément incisés, des traits de gravure parallèles couvrent la joue. Il peut s'agir de peintures corporelles ou de scarifications. Grotte de La Marche, Lussac-les-Châteaux (Vienne, France).

Human head with facial ornament. Very deeply incised, with parallel lines covering the cheek. They could be body paintings or scarifications.



On the left: Grotte de La Marche, Lussac-les-Châteaux (Vienne, France). Face of what appears to be an old man. <http://donsmaps.com/cavepaintings.html>

Similarly, the famous Lascaux painting already mentioned, of an ithyphallic man lying in front of bison¹³⁷ has found various interpretations: as hunting magic, or as the memorial of a wounded or slain hunter,¹³⁸ or as a shamanistic séance,¹³⁹ 17,000 BCE. (See p. XX above).

Since the Seventies, however, the pendulum has swung to ethnographic comparison, further including, if still hesitatingly, elements of art history (Panofsky) and the psychology of human development (A. Warburg). Prominent, too, is the interpretation of schematic and abstract signs, especially for Australian art, by Peter Ucko.¹⁴⁰ However, at least some of the frequently used dots may also be interpreted as representing particularly effective acoustic spots¹⁴¹ and the 'reading' of geometric signs is equally problematic.¹⁴² Various explanations have also been sought for ap-

parent doodling and macaroni-like lines.¹⁴³ Even the arrangement (subjected to structuralist interpretation) of multiple animals in cave paintings remains unclear.¹⁴⁴ In some such structuralist interpretations (Leroi-Gourhan), individual compared animals that supposedly make up elaborate schemes are in fact separated in artistic creation by hundreds, if not thousands of years.¹⁴⁵

Another line of approach, as mentioned, follows the work of the art historian E. Panofsky. He underlines that we can recognize only what we know already; our interpretation rests on personal experience, and unknown objects cannot be identified. Indeed, at first scholars could easily recognize only human and animal forms, including even the so-called 'sorcerer' of Trois Frères that has human and animal elements. The experience of cave art specialists highlights that they could only gradually discern certain designs, figures and animals among the multitude of drawn lines that have been superimposed on each other in the course of millennia.¹⁴⁶

However, some of the linear or geometric depictions that Wunn (2005) associates with playfulness¹⁴⁷ may instead be due to the entoptic phenomena¹⁴⁸ (in the eye) that occur in altered stages of consciousness, such as those of shamans.¹⁴⁹ Another recent explanation for the dot patterns in cave art is, as mentioned, that they seem to reflect locations that were particularly suited to create

137 Illustration in Campbell 1988: I.1: 65.

138 Breuil 1952: 144-146, J. Maringer 1956: 130.

139 H. Kirchner, Eliade, Campbell 1987: 310.

140 Ucko 1977.

141 Lorblanchet 2000: 209 sqq.

142 Lorblanchet 2000: 189.

143 Wunn 2005: 122, Lorblanchet 2000: 65sq.

144 Lorblanchet 2000: 138, 189 sqq.

145 Lorblanchet 2000: 139, 150.

146 Lorblanchet 2000: 139, 150.

147 Wunn 2005: 128 sq.

148 Such pictures, generated by the eye itself, are discussed in detail by Nicholson 2003, 2006. The connections between shamanism and purely entoptic experiences is denied by some scholars (debate by Wallis 2002; Walter & Fridman 2004: 25, 27).

149 Lewis-Williams 1996, Lewis-Williams and Dowson 1988.

sonar effects (resonance, echoes etc.)¹⁵⁰ Clearly, more explanations are to be explored.

In this respect, Wunn (2005), uses the evolutionary theory of Bellah (1964)¹⁵¹ and combines it with the presently available archaeological evidence. She summarizes¹⁵²

The catalogue of judgments [about the reconstruction of prehistoric and early historic relics] is scientifically justified and intersubjectively testable. Ideally, any attempt at the reconstruction of the worldview of an unknown culture should progress in several steps, building on each other...

The essential precondition for any interpretation, then, is the knowledge of the life style, without which wrong interpretation can hardly be avoided. To use the vocabulary of the study of art: first, the actual sense [use] of an object must be understood before one can ask for its underlying symbolic meaning. In a next step, the meaning of the object within its mental context has to be elucidated: what is represented, which symbolical meaning is attached to the depicted item, and which aim does the piece have? These questions can only be clarified with the help of human ethology. However, only the classification of the material emanations of a particular religion and their specific task in a socio-religious context allow insight into the larger context.¹⁵³

Taking all of the above into account, Wunn¹⁵⁴

insists that cave art –including the so-called “Mother Goddess” figures¹⁵⁵ – must now be explained differently. The latter are not cult idols; these are only found in later religions.¹⁵⁶ Indications of ritual (such as burials) would be more important for the reconstruction of archaic religion. The importance of certain types of rock art is thus much reduced as an indicator of Stone Age religion and myth. According to Wunn, this overview of Stone Age art allows just one answer about Palaeolithic religion:

“There are no clear examples for religious practices of Late Palaeolithic humans that can be connected with cave art. Neither sorcerers nor shamans were depicted, nor clashes between totemistic clans.”¹⁵⁷

Instead, she proposes a new evaluation of hunter’s magic, and at this point¹⁵⁸ she brings in ethnographic comparison that “might help” in the interpretation of cave art. She *speculates* that perhaps the animals depicted were “soul catchers” that were used in the ritual preparation of larger hunting trips. We will see how far this agrees with a sustained historical and comparative reconstruction of early shamanic religion.

Wunn further believes that even the depiction of mixed human/animal beings also belongs here: they too are expressions of spontaneous art, “without secondary meaning.”¹⁵⁹ Such depictions of composite beings would indicate speculation about the nature of human beings and their difference from animals, as well as the relationship between hunter and prey.

150 Lorblanchet 2000: 209 sqq.

151 Bellah, R.N. Religious Evolution American Sociological Review 29, 1964, 358-74.

152 Wunn 2005: 36.

153 Wunn 2005: 36, my translation.

154 Wunn 2005: 132 sq.

155 Wunn 2005: 140 sqq.

156 For the (misplaced) interpretation of Stone Age paintings and sculptures as ‘art’ – as we understand it today– and for the required stress on the individual social context, see also R.J. Wallis in Walter & Fridman 2004: 22.

157 Wunn 2005: 132, my transl. She complains that this kind of approach has hardly entered the debate so far: incidental selection of motives, and old ideas of prehistoric religion prevail.

158 Wunn 2005: 131.

159 Wunn 2005: 130 sq; following Victor Turner, she believes that the fantastic human/animal depictions were used, as in Ndembu art (SE Africa) to school the intellect and to think about human/animal relations.

Though this line of thought comes close to what San, Australian and other shamans think about the hunt, Wunn still maintains that late Palaeolithic composite human/animal figures, so typical for the shaman costume,¹⁶⁰ do *not* represent a shaman.¹⁶¹

I think even a table of the congruencies, identities and overlaps of cave art and modern shamanic practices will show the opposite: the Palaeolithic cave paintings indicate an early form of shamanism that is still maintained with the San, Andamanese, Semang, Papuas and Australian

Aborigines—populations that in my own scheme of comparative mythology belong to the 'older', Gondwana type (of c. 65,000 years ago), from which Eurasian and American mythology (of the Laurasian type) developed around 40,000 years ago.

In summary form, the comparison between the shamanistic peoples and the representation in Stone Age rock art looks like this.

TABLE: Global Shamanism and Stone Age Art

Caves paintings : Upper Palaeolithic and Gondwana shamanism	Laurasian Shamanism: Tierra del Fuego Amerindians (Neolithic, c. 1900) ¹⁶²
<hr/>	
(Andamans)	<u>INITIATION</u>
Bushmen, etc.	a. summons in solitude from spirits of wilderness
<u>Lascaux</u> : 'dead' shaman & bird ¹⁶⁴	b. together with songs ¹⁶³
	c. compulsive: illness ¹⁶⁵ or death if notheeded
	d. spiritual familiar involved with call ¹⁶⁶
	<u>ASCENT</u>
Lascaux: 'dead' shaman & bird	
Bushmen: shaman-like ascent/ Descent;	
Andaman: dreams, dying/rebirth, meeting of spirits;	
Australia: death, ascent, descent	

160 See Campbell 1988: I 1; Gimbutas 1991:176; depictions of such shaman-like figures see Campbell 1988: I 1: 74, -78, and I. 2.: 156.

161 Wunn 2005: 131.

162 List, after Campbell 1988: I.2: 164 sq

163 Eskimo: songs, Campbell 1988: I.2: 166; Tungus: "when I sing, [illness] disappears" (Campbell 1988: I.2 : 172); cf. the communal dances of Bushmen.

164 See earlier discussion on initiatory crisis.

165 Tungus: "sick for one year," Campbell 1988: I.2 : 171.

166 Bushmen: role of alites (flying bucks"); – Eskimo: Campbell 1988: I.2: 166 2 "human" helpers; note the illustration p. 167 # 292 : shaman with helpers inside his body, which remind of the art of composite animals seen in Scythian

Bushmen: no dissection/
transubstantiation

Australia: insertion of crystals,
internal organs removed;
ditto: Semang & (S. America)

Australia: moves up/down
Bushmen: descend/ascend

Bushmen: in contact with 'hot'
power for healing, trance
Andaman: in contact with power (heat)

e. with inward physical transubstantiation¹⁶⁷

POWERS¹⁶⁸

f. sees/moves through barriers/space¹⁶⁹

g. mediate between humans and
supernatural¹⁷⁰

animal style and certain Indian animals shown inside the body of a deity. – Tungus: (Campbell 1988: I.2: 171) "fore-fathers forced me."

- 167 Bushmen: control of *ntum* force inside, it moves up the spinal column; there is no transubstantiation (cf. in India: *knndalini* power, Campbell 1988: I.2 : 94). Note the role of the flying alites, springbok: the spirit of a Bushman houses itself in the body of an animal as it goes to the eternal 'bokveld' (Campbell 1988: I.1: illustration 178). – Andaman: *oko-jumu* 'dreamers': in dreams, by dying and returning to life, by meeting of the spirits in the jungle (Campbell 1988: I.1 : 118 sqq); they are in contact with the primordial power in all objects: *ot-kimil* (Campbell 1988: I.1: 121). – Australia: symbolic death and ascent to heaven: the master changes into skeleton, puts the shrunk candidate (size of new born) in his pouch on his neck, rides astride on the rainbow snake, throws the candidate into heaven, killing him; in heaven he inserts small rainbow snakes and crystals into him, brings him back to earth on the rainbow snake; again, crystals are inserted; he awakens him by touch with a magical stone (Eliade 1954: 135). Similarly with the Aranda medicine men (Campbell 1988: I.2 : 169): a cave near Alice Springs is used, the imitator falls down dead, his internal organs are removed; a new set is inserted with stones; he returns to life as insane; this ends after painting himself, a few days later. – Other, lower levels of shamans are taken underground by a spirit: small crystals are pushed along the front of his legs, upwards to his breast bone, and "pressed into his body", then into his head and limbs; a pointed stick is put under the nail of middle right finger; the tongue pierced, his body painted; he returns. The Wiradjuri follow a similar pattern (Eliade 1954: 139): the master inserts crystals, leads the initiate to his grave; he meets a snake that becomes his totem and leads him into the earth where other snakes rub on him, giving him powers; then, the master leads him to Baiame, the highest being, sitting on a throne of crystal. Both ascend on a rope, until they meet his bird, enter the door to heaven that is quickly opening and closing (as in Ainu myths). – Chukchi/Koryak: transvestite shamans, through androgynous being (Campbell 1988: I.2: 173). The androgynous concept may have been derived from that of an androgynous primordial being. – Inuit: Campbell 1988: I.2: 167: "eaten by bear, limb by limb"; often connected with fasting, no sex, isolation, no warmth, etc. (Campbell 1988: I.2: 167). – Tungus: (Campbell 1988: I.2: 172): there is cutting up of flesh, the separating bones; 'ate my flesh'; counting bones: one is in excess; at the end, the shaman spirits drinks the blood of a reindeer; only after the ancestors give up his body, he begins to shamanize.
- 168 Bushmen: have a general power: *ntum*, controlled by medicine inside the body. – Australia: SE: All-Father; N/NW: All-Mother / Rainbow; Central: Ancestors/totem. – Andamans: *ot-kimil*, primordial power, in all objects; danger by contact with it; people in contact with it are the *oko-jumu* 'dreamers'; the contact occurs in dreams, by dying and returning to life, by meeting of the spirits in the jungle (Campbell 1988: I.1 : 118 sqq); there is "no trance/shamans" (Campbell 1988: I.1: 121). – Inuit: *sila* 'soul'/'*silam inua* 'soul of the universe'; Campbell (1988: I.2 : 168) stresses (amoral) degrees of powers, also making use of tricks and deceptions. The power is a strong spirit, invisible, distant but also inside oneself, as long as people behave.
- 169 Bushmen: shaman moves down, then up to heaven/god (Campbell 1988: I.1: 96), by taking hold of spiders' silk strings. Note that the souls of the dead also fly (Campbell 1988: I.1: ill. no. 76). – Andaman: nothing is recorded, just the contact with power. – Aranda: Campbell 1988: I.2 : 170: inside the shaman is a lizard of great power; – with other tribes, it takes the form of the eagle-hawk, who brings suffering to enemies; – Siberia: movement along the world tree.
- 170 Andaman: participatory contact with power. – Chukchi/Koryak: anthropomorphic sky gods; intervening anthropomorphic enemy spirits intercept sacrifices (cf. Meisig 1995).

	h. advise/guide in hunting ¹⁷¹
Bushmen: use power (<i>ntum</i>) for healing Andaman, Australians <i>ditto</i>	i. healing: massage, suction, flight to heavenly source (moon, etc.) of it; j. sorcery: injuring by projecting stones, etc. into enemies k. magic by tricks, necromancy l. assuming form of animals, mountain
Bushmen: transformation, from/into flying eland Australia: rainbow snake, lizard, hawk inside Australia; snake, lizard, hawk	m. ~ power of animals, mtn.s, trees, etc. to shamanize
(Andamans etc.)	n. ~ power to influence weather o. rivalry/malice between shamans p. schools of them search/foster new shaman talents
(Laurasian story line and shamanic teaching)	q. perfected shaman initiate the young r. shaman relies on dreams for information and warnings
PERFORMANCE	
1. Ritual dance dancer at <u>Trois Frères</u> , with bow in hand ¹⁷² "sorcerer," <u>Trois Frères</u> ¹⁷³ Bushmen: communal dance ¹⁷⁴ resulting in trance	
2. animal costume dancer & sorcerer, <u>Trois Frères</u> Bushmen: no costume, but change to flying eland after death? Andaman: only plants used	~ d. spiritual familiar involved with call ~ l. assuming form of animals ¹⁷⁵ ~ m. power of animals, etc. to shamanize
3. identification with bird	~ d. spiritual familiar involved with call

171 Tungus: the ancestors help, see Campbell 1988: I.2: 171 sq.

172 Campbell 1988 I. 1: 74. Note the use of early forms of music with the San, Australians; later on, use of circular drum.

173 Campbell 1988 I.1: 76.

174 Bushmen: communal dance leads to trance; – Andaman: social dance only.

175 Bushmen: men were springboks, changed into humans by power of the mantis (that can also change into an antelope, see Frobenius 1998: 282 sqq.); the spirit is in the body of an animal as it goes to the eternal 'bokveld'.

'dead' shaman next to bird
on pole, at Lascaux

Bushmen: transformation by
mantis from/into flying eland
Australia: rainbow snake, hawk

~ l. assuming form of animals

4. ecstatic trance
dancer, Trois Frères

Bushmen: ecstatic dance, trance
Andaman: trance after contact with spirits
Australians: trance, move up and down

~f. see/moves through barriers/space¹⁷⁶

5. master of game animals
dancer art Trois Frères

Bushmen: identification with
animal (eland horns worn)

~h. advise/guide in hunting

6. master of initiations
Bushmen: go through years
of (self-)training, master *ntum*
Australia, *ditto*

~ p. schools of them search/foster new
shaman talents

~q. perfected shaman initiate the young

possibly:

7. wand/ staff [with bird]
'dead' shaman with bird staff,
Lascaux; shaman with bow
at Trois Frères

shaman's drum¹⁷⁷
bird symbolism in Siberia

8. control of magical animal-
supporting him
Bird on staff at Lascaux?
Bushmen: cf. flying eland form
Australia: snake, hawk

~l. assuming form of animals, etc. familiar
~m. power of animals, mountains, trees,
to shamanize
(bird in Siberia, *ditto*)

176 Andaman: Axis mundi, the dipterocarpus tree (Campbell 1988: I. 1: 123); this raises the possibility of some lost shamanic practices. – Australia: double *tjurunga* at initiation represents both sexes (note the carving at Laussel in France and in Dogon land in Burkina Faso; a joint *tjurunga* is "the eternal"; is then buried in a dry stream (Campbell 1988: I.1: 143); note the role of a tree in burial. – Chukchi/Koryak: the sacrifice rises along the tree, Campbell 1988: I 2: 192; – Tungus: *Tuuru*, Yakut *Särgä*; on it sit the young shamans in nests; the Tungus on Tunguska put the pelt of sacrificed animals there; the shaman climbs this tree when shamanizing, it grows up to heaven (male tree: larch, female: fir).

177 For the western C. Asian BMAC drum, at c. 2400-1600 BCE, see Witzel 2003; – Koryak/Chukchi: the drum is not yet sanctified. – Tungus: the drum made from a living larch.

9. association with animal
sacrifice

SACRIFICE

Palaeolithic bear sacrifices;
Buffalo killed and offered(?)
& 'dead' shaman (Lascaux)
Bushmen: hunt itself is "sacrifice":
eland hunted in archaic ritual
fashion
Australians: self-offeromg of blood
in initiation ritual only

Tungus, Koryak, Chuckchi¹⁷⁸
(dog, reindeer)¹⁷⁹
Dog sacrifices at Samara¹⁸⁰

§ 10 MODERN AND STONE AGE SHAMANISM

It thus appears that there are a number of seemingly global characteristics that unite the San, Andamanese, Australian, Eurasian/American shamanism as well as their representations in Stone Age art. Some aspects of these characteristics are already clearly, some more likely, represented in Stone Age rock art:

- * death and rebirth / change inside the body(?)
- * use of animal familiars (bison, bird)
- * trance: descent / ascent to the spirits or deities (using bird)
- * contact with and use of supermundane powers, for healing and success in hunting (as seen in hunting magic)
- * management of heat in spinal cord (also Palaeolithic?)
- * shape shifting/animal costume (though not with the San)
- * dance and music (by bow, and 'musical spots' in caves)

* transmitting such knowledge in songs and tales (in early mythologies).

Unless there has been some unknown, radical change in the Bushman, Australian, or Andamanese lore over the past millennia, this congruence seems to reflect an older stage of shamanism; importantly, several of the key shamanistic features —new body, ascent to the deities as a bird, dance, contact with powers, and connection with hunting magic¹⁸¹— are seen already in Crô Magnon paintings.¹⁸² These are archaeologically datable, at least, to the later part of the Upper Palaeolithic, from c. 27,000-14,000 BCE.

Further, some important features such as shamanistic dance, animal costume or shape shifting, hunting magic, communication with spirits, and the transmission of tales present in reconstructed Stone Age mythology (Pan-Gaeon, Gondwana and Laurasian), fit quite well into early Pan-Gaeon hunter societies' conceptions of shaman power. They include items such as the shaman's death and rebirth during initiation that of the (parallel)

178 Campbell 1988: I 2: 175.

179 For Australia, see the interpretation of an initiation ritual as (blood) 'sacrifice' by Stanner (1959), executed by self-mutilation.

180 See David Anthony, for a Late Bronze age site in S. Russia,
<http://users.hartwick.edu/anthonyd/ritual.html>.
See Ôbayashi 1991.

181 Campbell 1988: 65, 74, 76.

182 Is the San/Snadawe version still closer to the original African (pan-Gaeon) version of shamanism?



Lord of the animals, Indus Civilization and Gundestrup vessel, Denmark

rebirth of animals killed in hunting, his ascent to heaven and return to earth.

This form of early (reconstructed) shamanism has subsequently been further adapted¹⁸³ along the lines seen in its Andaman and Australian forms (i.e., physical change of the body of the shaman), and development of the animal costume, as it is later very prominent in the Late Palaeolithic (France, etc.), in Siberia and the Americas, the development of simple music (clapping, bowstring) to Siberian drumming, etc.

Some of the main features of Eurasian shamanism thus fit quite well into the early, perhaps Pan-Gaeon, hunter society's assumed shamanism. The concept has been further adapted along the lines seen in Andaman and Australian shamanism (i.e., change of the body of the shaman), further development of the animal costume, already seen in Lascaux, and later very prominent in Siberia, etc.

In addition, some mythemes underlying shamanism also appear prominently in Gondwana and Laurasian myths, such as ascent, rebirth during initiation, as well as rebirth of an animal killed in the hunt or in sacrifice.

Shamanic illness, the so-called shamanistic initiatory crisis

Experiencing the flight/ascent to heaven

on an animal or by climbing a tree or a mountain

Experiencing death, dismemberment and reconstitution of the body

After initiation use of music, dance, clapping and drumming, entheogens and other methods to achieve a change of consciousness, while

Parallel experiencing internal heat rising from the bottom of the spine to the head

Based on these shared global characteristics, we can conclude that Palaeolithic shamanism was an archaic form religion that had a less complex version of what later on developed into "classical" Siberian shamanism and its offshoots in Eurasia and the Americas.

It is not economical, and factually impossible, to attribute the similarities between Australian, Andamanese and San and cave art shamanism to some late diffusion –when and from where?– or to some sort of independent local development based on Jungian 'shared human characteristics'. The reconstructed mythology (Gondwana and Laurasia) of 65,000 years ago disallows a late spread, and the many congruities within the fixed structure (of Laurasian mythology, c. 40,000 years ago) disallow independent develop-

183 ter and Fridman 2004: 893.

ment. The same holds for early cave art.

Rather, the shared characteristics of such early shamanic practices have been of significant importance for the formation of Eurasian mythology, its composition and transmission across the millennia.

As discussed, the initiation of a shaman usually takes place after some early signs such as shaking and falling into trance. Formal initiation usually is secretive in Siberia; it is prominent and prolonged in San society as well.¹⁸⁴ The relationship between the shaman and the Lord of the animals, as well as the shaman's intercession for his fellow tribesmen, inevitably leads to his/her position in hunting magic.¹⁸⁵

The teachings of one or several experienced shamans involve the transmission of oral tales, beliefs and practices that are typical for the local form of shamanism. The importance of shamans as story tellers or singers may also derive from the belief that a person who is able to memorize long texts or songs and play an instrument did so by contact with the spirits (for example with Khanty people (Hoppál 2005: 99)

* * *

In the Laurasian context, these teachings and their content are highly formalized, as the development of the story line indicates. The very storyline may even have been intended and used as a teaching device: according to its sequential temporal arrangement, initiates could learn the many facets of shamanic lore. Schärer estimated some 15,000 pages for the Borneo Dayaks. The shamanic teachers' texts rely on the effectiveness

of sacred, frequently archaic speech.¹⁸⁶ They have served as the main conduit for the preservation of ancient myths and have ensured a certain amount of stability for them.¹⁸⁷ In that sense, Laurasian mythology constitutes our "grandfather's and father's tales."

Importantly, this kind of formalized transmission also favored the emergence and retention of the *very structure* of Laurasian mythology: myths are, as all oral texts, more easily learned by heart and transmitted in little changed form if they are organized according to a certain fixed pattern.¹⁸⁸ In the present case, it is the simple narrative structure from creation to destruction of the world, the Laurasian story line. It represents not only the 'life story' of the universe paralleling that of humans, but also that of killed animals, along with their expected rebirth — that is, if their bones were preserved intact. Importantly, these beliefs reflect those about shamanic death and rebirth in initiation as well.

To put it explicitly: Laurasian mythology is the outcome of an ancient hunter ideology. It must go back all the way to that of the Upper Palaeolithic shamans' and to their teachings that were continuously transmitted to their disciples. It is structured and based on the life cycle of their prey: killed and reborn animals. This process is seen as paralleling that of the fate of humans — as well as that of the reconstituted and reborn shaman — and of the world at large. These structures would include the divine figure of a Lord (or Lady) of the animals who is prominently found in many later mythologies across Laurasia.

184 Burkert in Narby and Huxley 2001: 223-226.

185 See examples in Indo-European, Japan, with the Taiwan Ami tribe; note that any hunter's language is archaic, see n. 1658, 2521; cf. also the Indian 'truth sorcery' (*satyakriyā*).

186 Cf. Maskarinec 1998, 2004 for Central Nepal.

187 Note the various designs used by various populations: medieval and Tibetan 'memory palaces', Vedic Indian's mental designs to keep a fixed order of the 1028 hymns of the oldest text, the Rgveda, or the Polynesian method of using the skeleton of a fish on whose bones certain data are 'stored' (Witzel 1996). The Papuan and Andamanese (and S.E. Australian) way of counting, or rather tallying, is not very different from each other, see Witzel 2002.

IN PRAISE OF RESEMBLANCE: HUMAN COMMUNICATIONAL UNIVERSALS AS BASIS FOR MUTUAL ACCEPTANCE

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Abstract

In the human species, individuals establish social bonds mainly based on communication. Among the qualities that are used by individuals to include other individuals in their social network, the ability to demonstrate one's *relevance* in the eye of others proves crucial. In this respect, relevance can be more important than sharing a common culture or a common language. Fortunately, the principles that govern relevance in communication seem to be universal and deeply rooted in our biology, enabling any two individuals in our species to become friends, regardless of their differences.

From cultural differences to what makes us human

In his book *Eloge de la différence* ("In praise of difference"), Albert Jacquard (1981) rightfully insisted on the necessity to consider others' differences with oneself as a source of richness rather than as a reason for exclusion. In ingroup *vs.* outgroup thinking, group membership is based on valued similarities such as physical appearance or idiosyncratic cultural traits, whereas any corresponding difference is taken as basis for segregation and contempt. I forcefully endorse Jacquard's claim that such "groupist" attitude should be overridden and that one's group limits should be extended to include any human being. From this latter perspective, differences between individuals are only relevant as sources of mutual improvement.

Praising differences is a good thing, as long as it allows us to remember that we all belong to the same species, that all people on Earth share 99.997 % of their evolutionary descent and that up to 99.9 % of our defining DNA is identical from one human individual to the next. Our obsession with differences, which are emphasized for worse

or for better, focuses on only 0.1 % of our essence. Our minds seek for any reason to singularize themselves and/or the group they identify with. Therefore any fortuitous physical or cultural difference is blown up out of proportion leading, in traditional societies, to common judgements of non-humanity hastily passed on any individual outside one's group.

Our genetic similarity is not only what makes up the biological unity of our species. We are one also *cognitively*. Each member of the human species is equipped with cognitive abilities that enable her/him, not only to recognise other human individuals as belonging to the same species, but also to establish social bonds with them. In this, we do not differ from many other species. Any dog knows whether another animal is or is not a dog and is able to engage in species-specific activities with it (fighting, mating, play...). It is of prime importance for us, as humans, to understand the cognitive devices through which we grant human essence to other entities and establish social bonds with them. But human beings differ from dogs and other animals in one crucial aspect.

Human beings can not only grant humanity to other members of their species, they can also *deny* it. This ability to make binary predication: "This being is of my kind" *vs.* "This being is not human" (sometimes despite all proof of the contrary) makes it all the more important to understand what triggers one judgment or the other. This is especially important in a context of globalization, in which we can no longer afford mutual exclusion. The ability to establish successful communication is essential when it comes to inclusion/exclusion decisions. Since relevance is the determining factor of successful communication, this paper is devoted to examining some universal aspects of relevance.

In what follows, I will make a brief survey of some universal aspects of human communication, considering spontaneous storytelling and argumentation in turn. I will suggest that the cognitive apparatus that allow us to be relevant in each case is too specific and too complex to be a mere product of culture. I will conclude about the relative importance of similarities and differences and draw conclusions concerning mutual understanding across cultures.

Universals in human communication

When westerners made first contact with lost tribes during the last century, they reported misunderstandings such as the belief that intruders were of divine nature. But they never reported what should be expected in case of contact with what would appear to us to be an alien species: lack of common signs, lack of any common reference, lack of any disposition to interpret others' behaviour as intents to communicate. Science fiction often depicts such alien contacts, but understandably most often grants aliens with all the required cognitive equipment for successful communication with humans. Our leniency as audience of such fiction should not make us forget how idiosyncratic our communication behaviour is. Even if we share more than 99.85 % of our evolutionary past and 98% of DNA with chimpanzees

and bonobos, our sister species, our main communication behaviour is totally alien to theirs. Chimpanzees are not seen giving potentially useful information about the surrounding world to each other. Though quite curious of many immediate events, their attention remains a private concern: they are not seen pointing, nor drawing others' attention towards the event (Tomasello 2006). Alarm calls are often invoked as example of useful information broadcasted to the group. It might be the "closest" analogue in animal kingdom of what humans do with language. The Darwinian status of alarm calls is not yet fully understood. Their existence might receive the same kind of explanation as the existence of human language. Another classical example is the famous bee dance through which bees are able to indicate the location of food sources to each other (von Frish 1967). Note, however, that bees communicate exclusively among sisters. This fact alone makes a Darwinian explanation easy (Hamilton 1964). As we will see, human language poses a much harder problem.

Human communication behaviour is highly stereotyped, probably much more than what most people are aware of. Language is primarily used during spontaneous conversation. Human beings spend about one third of their awake hours conversing with conspecifics (Mehl & Pennebaker 2003). When involved in conversation, individuals engage in two major forms of verbal behaviour: event reporting (non fiction narratives) and discussion (argumentation), and marginally in various interactions involving language that we will not consider here (low-level action coordination, ritual speech, song, etc.). Together, narratives and argumentation represent more than 90 % of speaking time. Conversational narratives may fill up from 25 % (Dessalles 2008) to 40 % (Eggins & Slade 1997, p. 265) of conversation proper, the remainder being devoted to argumentation. Understandably, the relative proportions crucially depend on the situation of interaction. It is interesting to note that the importance of storytelling in

conversation has been overlooked until recently, simply because it is difficult to elicit in laboratory conditions.

Storytelling and argumentation are not only universal human activities. They rely on precise cognitive mechanisms that are unlikely to vary significantly from one culture to the next. If variation were dominant, if verbal interactions were ruled by cultural conventions, we would be alien to each other across cultures, with no possibility to understand anything but actions. Fortunately, any two healthy human individuals on Earth can rapidly develop mutual understanding. Let us go further into the reasons why this is the case, by examining in turn the cognitive basis of storytelling and of argumentation.

The ingredients of interest

Any non-fiction story, anywhere on Earth, must meet the same requirement to be accepted by conversation partners: it must arouse their interest. Of course, individuals from different cultures or even within the same culture have no reason to be interested in the same matters. It is nevertheless possible to bring out general laws that human brains seem to follow when determining what is interesting and what is not. I will mention a few of such "laws", as I could formulate them after having analyzed and modelled dozens of hours of spontaneous conversation (Dessalles 2008). One such law reads:

Interest = Hypothetical Emotion + Unexpectedness

The hypothetical emotion one associates to a given event can be assessed through prospect estimates, such as the insurance policy one is ready to pay to avoid an undesirable event. I do not want to lose my credit card; I do not want to lose my left arm either. Though my emotion would clearly be more intense in the latter case, the hypothetical emotion associated to the former eventuality might be greater, as the loss of a credit card is much more likely. In the above equation, *Hypothetical Emotion* is a positive intensity that does not take the (positive or negative) valence of the

emotion into account. Individuals are indeed interested in sharing emotionally negative events at least as much as positive ones (Rimé 2005:109).

The most spectacular determining factor of interest is unexpectedness, as its cognitive nature leaves little room for cultural influence. Unexpectedness is defined as:

Unexpectedness = W-Complexity – Complexity

Complexity is taken in its technical acceptance: the complexity of a state of affairs is the length of its minimal description (Li & Vitányi 1993). In general, complexity *stricto sensu* cannot be computed. We are more interested, however, in *cognitive complexity*, defined as *the length of the minimal available description* (the additional mention "available" is crucial here). The concept of cognitive complexity is no less "objective" than the standard definition, which must take a given machine as reference when interpreting descriptions. Cognitive complexity is defined by reference to a "cognitive machine": the interpreting abilities of the observer at a given moment.

W-Complexity differs from cognitive complexity in two respects. First, all objects that are believed to exist in the world have zero *W-Complexity* (*W* stands for "in the world"). Second, the way events are produced "in the world" must abide by the causal rules of that world, as they are known or imagined by the subject (note that *W-Complexity* is therefore no less cognitive than cognitive complexity).

Some examples will make the concept of unexpectedness more concrete. Suppose a fire occurs next block. According to your experience, such fires do occur, but typically much farther away. The determination of the place, if one follows the determinism of the usual "World", requires quite a long description (*e.g.* a set of directions). If the fire happens to break out next block, the *W-complexity* does not change. However, the actual complexity of the place (minimal description) is much smaller, as the set of directions to reach it is very short. A fire occurring in the vicinity is thus unexpected, according to the above defini-

tion. Note that for the similar reasons, a fire occurring at a prominent place will be equally perceived as unexpected, due to the simplicity of the place. Indeed on July 22, 2003, a minor blaze on the third floor of the Eiffel Tower was reported in several French national newspapers.

In October 2005, the US news widely reported that a man named Judd Alan Gregg had won \$850 000 in the US Powerball lottery. As long as the winner is an obscure individual, it remains complex, as the minimal information required to singularize him from all other potential winners is significant. But Judd Alan Gregg happens to be a US Senator. Prominent people are cognitively simple (there are only 100 US senators), much simpler than usual lottery winners. The event is thus unexpected, according to the definition.

Fortuitous encounters are particularly appealing to human minds, especially when they happen in a remote place and when the encountered person is simple, a neighbour say. According to the usual functioning of the "world", the encountered person is expected to be a complex one: anyone among the multitude of people who could be there at that time. The actual presence of a close acquaintance provokes a complexity drop and is thus unexpected. A more complex location increases the complexity of individuals that could possibly be there, and thus augments the complexity contrast. Conversely, the simplicity of the encountered person (a neighbour or a celebrity) diminishes the actual complexity, and also increases the complexity contrast. This example is particularly revealing, as the complexity of the place and the simplicity of the encountered individual play transparent roles.

The above laws are cognitive by nature. For a given event to be perceived as interesting, some definite computations must be performed that involve complexity assessments. Though the expression of emphasis, for example, may significantly vary depending on the culture when people tell stories, there is no reason to think that culture may influence in anyway the computa-

tions on which the perception of interest relies. In all cultures on Earth, individuals are interested in events that appear to them as unexpected, and they cannot help but communicate about such events.

How argumentation works

Argumentation obeys definite laws as well. This time, the underlying cognitive computation is better captured by an algorithmic procedure rather than by a formula. To be set off, the procedure must be given a *cognitive conflict*. Any spontaneous discussion is prompted by an *incompatibility* between two propositional beliefs or desires. For instance, one may be surprised by the fact that the price of a suburb train ticket is different when returning. The observation conflicts with a belief grounded in symmetry: the price should be the same in both directions. This is an example of *epistemic conflict*, an incompatibility between beliefs. This cognitive conflict triggered a conversation that I could observe, in which participants tried in turn to suggest possible explanations.

Cognitive conflicts may oppose not only beliefs, but also desires. For instance, a woman called up her husband because she had forgotten her keys and wanted to enter their home. There is a conflict here between the desire to enter the house and the belief that she won't be able to open the door. The conversation went on with both participants considering various solutions to the problem (premature return of the husband, borrowing a ladder from a neighbour, ...).

Human argumentation is highly constrained. Any move by participants aims at *solving* a current shared cognitive conflict or make a *new conflict* manifest. For instance, when the husband suggests that his wife may try to find a key that he had previously hidden somewhere in the garden and then go into the house through the cellar, she replies that the internal door between the cellar and the house might well be closed, thus raising a new cognitive conflict in answer to her husband's proposal.

Though the way of expressing arguments during discussions may considerably vary depending on the culture in which one grew up, the way the *content* of utterances is designed by participants must be mainly invariable, as it is governed by a cognitive “algorithm”. In a nutshell (see Dessalles 2008 for a detailed model) the algorithm reads:

Conflict: locate an incompatibility

Abduction: look for a cause for the weaker term of the conflict, *i.e.* the term for which the attitude (belief, disbelief, desire or non-desire) is of lesser intensity. Propagate the conflict onto that cause.

Solution: When a non-conflicting cause is found, or if the intensity of the weaker term of the conflict is regarded as tolerable, the procedure starts anew or stops if no new conflict is discovered.

Negation: When abduction fails, invert the conflict by negating both terms and start anew.

This Conflict–Abduction–Negation procedure (CAN for short) relies on non-trivial cognitive mechanisms that can hardly be considered as cultural products. On the contrary, there are reasons to consider both the human sensitivity to unexpectedness and the CAN procedure as components of our biology, and thus as characteristics that have been produced through the action of natural selection. In what follows, we briefly consider the particular conditions that might have led to their emergence in our phylogeny.

Why share information?

In the Darwinian world in which we live, giving away information to conspecifics is apparently an absurd strategy. It favours other individuals, which are by definition genetic competitors (unless they are kin, as in the case of bees) at the expense of the information giver. Solving this issue is key to understanding why we are a talking species. It is a wonder that this *paradox of human language* has not been raised until the last

decade.

The paradox explains why in most other species, individuals refrain from giving useful information to others. Most animal communication is devoid of semantics. It is mere repetitive advertisement, as in the case of bird song. It is in the interest of the animal to lie about its qualities when advertising them. Darwinian selection then leads to exaggerated and repetitive signals, as receivers can only assess their reliability when their cost is close to the limit of what signallers can afford (Krebs & Dawkins 1984, Zahavi & Zahavi 1997). Strangely, human language seems to be an exception to the rule.

Solving the paradox of human language is not easy. Some have considered the possibility that language could be a mere cultural invention (Noble & Davidson 1996:214; Tomasello 1999:44; Kirby 2000). As we saw, the specificity and universality of the mechanisms involved in the production of relevant utterances leaves little room to such possibility. The ability to compute cognitive complexity or to perform abduction from a cognitive conflict bears little resemblance with cultural skills like writing or jazz improvisation. The latter are not universal and must be actively learned (whereas language is automatically learned by children).

Other authors invoke a new mechanism to account for the existence of language: reciprocal cooperation. Though reciprocation is virtually absent of animal kingdom, especially among non-kin (a possible exception is vampire bat, Wilkinson 1984), information “exchange” in our species is sometimes claimed to be primarily based on reciprocal cooperation (Pinker 2003:28; Nowak & Sigmund 2005:1293; Nowak 2006:1561). But cooperation can only exist in the case of high benefit-to-cost ratio and when cheating detection is efficient (Dessalles 1999). These prerequisites do not hold in the case of language. Many stories and many discussions are about futile matters, and speakers talk to anyone ready to listen to them. Contrary to the cooperation scenario,

there are fewer ears striving to get information than talkers in search of an audience. In a cooperative world, cooperative acts are rare, highly valued and begged for. The human world, by contrast, is overflowing with cheap information.

A further attempt to solve the paradox of human language considers that language is, like most animal communication, just advertisement. Simply, it differs from other animal signalling in two respects: what is being advertised and how reliability is ensured. I suggested that language is used to advertise the ability to "be the first to know" (Dessalles 2007). At some point in the hominin lineage, lethal weapons were invented that enabled any individual to easily kill any other, for instance by getting advantage of the latter being asleep (Woodburn 1982:436). The best strategy to anticipate the risk is to join knowledgeable individuals, those who are aware of their physical and social environment and are able to notice anything unusual. As a consequence, the status of individuals who are able to demonstrate their superiority in this matter is automatically increased. In our species, and probably in some preceding ones such as *homo ergaster*, individuals have been competing for producing unexpectedness in others' minds, thereby showing off their quality as good observers.

This may explain why we are so sensitive to unexpectedness and so prone to share unexpected events. As soon as by the age of ten months, children spontaneously point to unexpected stimuli (Carpenter, Nagell & Tomasello 1998). We devote more than one hour each day to telling stories and sharing news. This unique behaviour is due to the fact that in our species, individuals take the ability to elicit surprise into account when establishing social bonds and updating their social network. Individuals who seem uninformed and are unable to violate others' expectations are perceived as boring and end up alone.

The propensity to signal unexpected events may thus be indirectly due to the fact that human beings are a danger to each other. By saying

"Hey, look at this!", even about some futile (but still unexpected) event, we unconsciously mean "You'd better accept me as a friend, because my observational abilities may save your life". This behaviour partially accounts for human universal narrative behaviour. Does it have anything to say about argumentation?

As long as signalled events can be checked (Palfrey 2000), there is no need for argumentation. Argumentative behaviour may have originated in the ability to detect lies (Dessalles 1998). By detecting cognitive conflicts between what others say and what we hold to be true, we are able to deter liars who attempt to produce unexpectedness at very little cost. Abduction and the whole CAN procedure result from resistance to undue accusations of lying. Note that these new abilities extended the scope of hominin communication to sharing any events, not only checkable events. Moreover, the ability to check and restore consistency became an asset in its own right when dealing with murdering risks and entered the limited set of criteria used to choose one's friends.

We must now remember that human conversation is not only about unexpectedness and consistency, but also about sharing emotions.

Sharing values

Why do human beings spend so much time in sharing emotional events and get so much pleasure from it? Again, this is a universal, but unique characteristic of our species. When doing so, individuals often reveal much of their weaknesses and give away information that could easily be used against them. They often ask the recipient of such confidence to keep it secret, but they also don't hesitate to propagate information that was given to them under similar confidentiality conditions (Rimé 2005:171).

As in the case of information sharing, one can find vague analogue in animal species. For instance, in many primate species, individuals spend about 20 % of their available time grooming each other. Grooming time is highly correlated

with the strength of social bonds. Language can be seen as having replaced grooming as a way of maintaining social bonds in our species (Dunbar 1996). This does not explain why sharing emotional events is so important in our species and virtually absent in others.

In a species in which killing each other has become so easy, only solidarity bonds prevent life from becoming cheap. In all cultures, taking one's life may be easy to start with, but murderers run the risk of retaliation. This is only true if the victim had some social existence, *i.e.* if she/he had been able to attract reliable friends. How can one be sure that one's friends are reliable?

Primate solution to prove one's faithfulness is to spend time grooming friends. Such behaviour is costly in time; therefore it is reliable according to Zahavian principles (Zahavi & Zahavi 1997). Grooming is conspicuous and reveals alliances to all, while insuring that one has only few well-chosen friends. In the human context, this is not enough. Alliances are dynamic and opportunistic changes are frequent and easy. Time spent together is still a marker of faithfulness (Dunbar 1996), but humans need to know more about whom they form an alliance with. By sharing emotional events, insofar as emotions cannot be easily faked, individuals reveal their true nature. Through gossip for instance, they show which moral values they value every time they show themselves offended by some third party's behaviour.

It is in the interest of anyone to verify that her/his friends stick to the values she/he expects from them. By selecting friends according to their ability to select emotional events and retell them convincingly, one has better chance to end up with reliable friends. No wonder that the kind of values praised in such narratives have social implications: solidarity, generosity, concern for friends, courage, faithfulness... No wonder that negative gossip denounce the negation of these values: betrayal, selfishness, thoughtlessness, cowardice, dishonesty... Though many (moral,

religious, behavioural...) values are by essence cultural and may significantly vary from place to place, the kind of values from which conversational narratives get their emotional power are surprisingly similar across the world.

Human differences in their true perspective

The picture one may get from the preceding development is that all human beings are alike as far as their conversational behaviour is concerned. Of course, this impression, if taken to the extreme, is blatantly refuted by observation. Everyone who masters several languages can verify how important even subtle differences can be in verbal interaction. It is well-known, for instance, that during discussion, disagreement can be expressed head-on in certain cultures and through circumlocutions or mere slight hesitations in others. In some languages such as Aymara, speakers must make clear whether the events they are reporting are first-hand or second-hand. My intention is neither to negate these differences nor to claim that they are inconsequential. We should remember, though, that human beings have been selected to overemphasize differences and might sometimes forget that there is an iceberg underneath.

Let me take another metaphor. Musicians are able to recognize slight variations when hearing a piece that they already know perfectly well. At some point, all their attention is geared toward the variations, so that they get all their pleasure from being surprised by the performer's imaginative play, while being blind to the beauty of the overlearned theme. Our attitude toward language is not far from this.

The cultural differences that modulate language use strike us so much that we lose the sense of proportions. From a cognitive and biological perspective, these differences are no more than slight variations on a huge body of common conducts. We all share the same human nature, we all share the same evolutionary past; our an-

cestors were all selected to be relevant in order to attract friends into their social network. This is the only reason why mutual understanding is possible on Earth. We do not speak the same languages, but we all use the same language. Thanks to our common frame of reference, namely relevance, we are able to establish social bonds, beyond cultural gaps, with any other human being in this world. Cultural differences may prevent us from perceiving relevance in others. We must remember how ridiculously small these differences are in comparison with the amount we share by common descent. Once we put them in their true perspective, we can enjoy these differences as intriguing conversational topics and be amused at making comparisons.

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L'ÉTUDE DES COMMUNAUTÉS HYBRIDES HOMME/ANIMAL À L'INTERFACES DE L'ÉTHOLOGIE ET DE L'ETHNOLOGIE.

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Ethology and Ethnology have developed relations of conflict and of proximity. In fact, they form autonomous disciplines which are both very close and distant to each other. The ethnologists, who are specialists of social sciences, study the human societies. The ethologists, who are rather biologists or behavioral scientists, observe the animal societies. In addition, the ethology and the ethnology are disciplines which are constituted historically in opposition to each other. Their actual convergences announce, however, the premises of a new paradigmatic approach by which ethologists and ethnologists could cooperate together in order to cope with the study of one of the domains of social sciences which remains largely unexplored – that of the human and animal hybrid communities.

Ethologie et ethnologie ont développé des relations de conflit et de proximité. L'une et l'autre forment en effet des disciplines autonomes qui sont à la fois très proches et très éloignées. Les ethnologues, qui sont des spécialistes des sciences sociales, étudient les sociétés humaines. Les éthologues, qui sont plutôt des biologistes ou des comportementalistes, observent les sociétés animales. L'éthologie et l'ethnologie sont de surcroît des disciplines qui se sont historiquement constituées en opposition l'une avec l'autre. Leurs convergences actuelles annoncent les prémisses d'une nouvelle approche paradigmatique où éthologues et ethnologues pourront coopérer ensemble pour aborder l'étude de l'un des domaines des sciences sociales qui restent encore largement inexplorés - celui des communautés hybrides homme/animal.

Introduction

Les agencements qui se constituent entre les hommes et les animaux qui partagent un même environnement sont d'une très grande complexité et ils restent encore peu étudiés. Ce sujet négligé est par ailleurs rarement traité de façon systématique et symétrique. Il existe peu d'études qui essaient de rendre compte systématiquement des *vies partagées* qui s'établissent entre hommes et animaux¹. L'étude des influences épisodiques des uns sur les autres n'est pas suffisante. Hom-

mes et animaux n'ont pas des vies séparées qui s'influencent seulement et occasionnellement sur les marges. Toutes les sociétés humaines sont composées à la fois d'humains et d'animaux et elles doivent être comprises en tant que telles. Il convient en conséquence d'élaborer une conception des relations de l'homme à l'animal qui ne se base plus *a priori* sur le paradigme de la séparation de l'humanité et de l'animalité, mais sur celui de leur *complémentarité*, sur celui de la *recherche des convergences* entre les uns et les autres, et sur

1 On peut citer les études de Heinrich (1999) sur les corbeaux qui vivent dans des familles humaines. Pour un travail théorique qui présente la question, voir Lestel et alii (2006).

celui de la *vie partagée* par des agents *intentionnels* d'espèces différentes². Une telle étude ne relève cependant ni de l'éthologie (qui se focalise sur les comportements animaux *sensu stricto*), ni de l'ethnologie au sens classique du terme (qui se restreint à l'étude des sociétés *d'humains* et non à l'étude des sociétés *humaines* comme elle le dit à tort). Il faut inventer une nouvelle science dont l'objectif est de comprendre comment humains et non humains vivant ensemble au sein de communautés hybrides.

Oppositions entre ethnologie et éthologie

Espinas (1877) a pu soutenir à la Sorbonne la première thèse de sociologie française sur les sociétés animales, mais c'est un temps qui appartient désormais au passé. Les durkheimiens ont entre temps opposé sociétés humaines et sociétés animales et l'étude de ces dernières ne fait plus partie des sciences sociales. Dans cette perspective, les sociétés humaines sont des sociétés de sens basées sur la raison (ou la folie), le symbolique et l'interdit, la loi et ses transgressions. Les sociétés animales sont au contraire supposées être des associations causales directement formées par le jeu de la sélection naturelle. Il résulte de cette opposition qu'éthologie et ethnologie sont devenues deux disciplines distinctes qui n'ont plus grand-chose en commun l'une avec l'autre. Les tentatives répétées de les réunir durant le 20^e siècle n'ont par ailleurs pas laissé de bons souvenirs. Des provocations multiples, comme celle d'E.O.Wilson (1975) qui prévoyait que la biologie phagociterait définitivement les sciences sociales dans les 25 années à venir n'ont d'ailleurs pas contribué à apaiser le débat.

Depuis quelques années, la situation évolue en profondeur. Au moins trois raisons peuvent être évoquées à cet égard. L'éthologie elle-même se transforme en profondeur. L'émergence des

sciences cognitives renouvelle les rapports entre sciences sociales et sciences biologiques en jouant un rôle d'intermédiaire très utile et très fécond. Les sciences sociales s'intéressent de façon croissante aux relations homme/animal qu'il n'est plus possible de traiter en gardant une opposition fictive entre éthologie et ethnologie.

Renouvellement radical de l'éthologie

Un renouvellement considérable de l'éthologie s'est produit au début des années 60 quand une poignée de chercheurs, comme J. Goodall ou T. Nishida, ont décidé d'aller observer des chimpanzés sauvages sur le terrain et de rester avec les mêmes animaux pendant des années après s'être familiarisés avec chacun d'eux individuellement. Ces observations continuent, plus de quarante ans après. L'éthologie *du* chimpanzé s'est insensiblement transformée en une ethnologie *des* chimpanzés. D'autres projets comparables devaient voir le jour plus tard. La comparaison des données des divers sites d'étude de chimpanzés sauvages conduisit W. McGrew (1992) à faire l'hypothèse, audacieuse en éthologie, qu'il existe d'authentiques cultures chimpanzéées³. Les comportements des membres des diverses communautés sauvages de chimpanzés diffèrent sensiblement les uns des autres, d'une façon qui n'est explicable ni par la génétique des animaux concernés, ni par les caractéristiques environnementales des sites en question. Si les chimpanzés de Taï, en Côte-d'Ivoire, chassent les colobes pour s'en nourrir, et non ceux de Gombe (Tanzanie), ce n'est pas parce que les colobes sont inexistant à Gombe. Des innovations comportementales émergent régulièrement et sont socialement transmises aux autres membres du groupe. Ce n'est pas la première fois que les éthologues évoquent des comportements culturels chez l'animal. Mais c'est la première fois qu'autant de comportements différents sont en jeu. Et si les cultures chimpanzés

2 Lestel (1996) fournit une première discussion des communautés hybrides.

3 Cf. Lestel (2001), pour une discussion de fond sur cette question.

ne sont pas superposables aux cultures humaines, il n'en reste pas moins vrai que ces sociétés sont d'une complexité beaucoup plus importantes que ceux à quoi on s'attendait, et qu'une approche ethnographique est désormais requise pour les comprendre. La fin des années 90 et le début des années 2000 verront de surcroît la multiplication des sociétés animales concernées par une telle dimension culturelle de leurs sociétés.

Emergence des sciences cognitives

Un deuxième changement majeur apparaît avec l'émergence des sciences cognitives. Celles-ci acquièrent une réelle visibilité au milieu des années 80. D'abord organisées autour de l'intelligence artificielle, elles se réorganisent à cette époque autour de neurosciences de plus en plus envahissantes – et efficaces⁴. Pour ces dernières, les performances d'un agent découlent en partie de ses compétences cognitives, lesquelles sont globalement celles de l'espèce, c'est-à-dire d'origine biologique. De façon très minoritaires, mais tenace, plusieurs courants des sciences cognitives tentent d'établir une jonction plus ou moins réussies avec les sciences sociales. Anthropologies et sociologies se parent de façon croissante de l'adjectif de 'cognitives' pour acquérir une identité professionnelle bien visible. Historiquement, ces sciences sociales cognitives ont bénéficié de plusieurs atouts. Quelques-uns de ses pionniers étaient très liés aux ethnométhodologues garfinkeliens qu'on pouvait sans doute accuser de beaucoup de maux, mais certainement pas de celui d'être des réductionnistes positivistes. D'autres ont su habilement proposer une lecture cognitive du structuralisme alors en vogue en anthropologie. Le point important à retenir est que ces courants vont légitimer petit à petit la connection entre sciences sociales et biologie par l'intermédiaire de la cognition.

Regain d'intérêt des sciences sociales pour l'étude des agencements homme/animal

Un troisième changement pertinent important, plus récent, concerne le regain d'intérêt actuel que montrent les sciences sociales pour les relations homme/animal. Les travaux de l'historienne Erica Fludge (2002a, 2002b) sont représentatifs de ce nouvel intérêt des sciences sociales pour les relations homme/animal. Les difficultés d'une telle histoire sont pourtant loin d'être négligeables. Par exemple parce que l'animal ne parle pas. Ou parce que les périodisations historiques classiques ne conviennent pas à une histoire de l'animal. Plusieurs approches d'une telle histoire de l'animal sont possibles, sensiblement différentes mais convergentes, par exemple une histoire des débats autour de l'animal et de ses représentations, ou une histoire des matérialités que requièrent les relations de l'homme à l'animal. En anthropologie, des chercheurs comme Philippe Descola (1996) donnent une nouvelle impulsion à la pensée de la place des relations homme/animal dans la constitution des sociétés humaines, et dans ce qui fait d'une culture humaine ce qu'elle est. Il apparaît de plus en plus clair qu'humains et animaux vivent ensemble dans ce qu'on avait coutume d'appeler des 'sociétés humaines'. La communauté où vivent humains est la norme plutôt que l'exception. Il faut repenser l'évolution de la complexité sociale dans cette perspective.

Inventer un nouvel espace entre éthologie et ethnologie

Un nouvel espace doit donc s'inventer aujourd'hui entre éthologie et ethnologie, après la prise de conscience que les sociétés humaines ne sont pas seulement symboliques, mais également biologiques et cognitives et que certaines sociétés animales, si elles ont peu de chance d'être jamais perçues comme des sociétés symboliques sont

4 Pour réaliser les dérivées des sciences cognitives actuelle par rapport à ses potentialités vis-à-vis des sciences sociales, il faut lire le très intéressant livre d'un pionnier des sciences cognitives (Bruner 1990).

néanmoins des sociétés qu'il n'est plus ridicule de qualifier de 'raison', même s'il s'agit d'une raison qui s'écarte substantiellement de la raison humaine.

Les biologistes s'intéressent aux *associations interspécifiques biologiques* (mutualisme, symbioses, etc.) mais les éthologues négligent encore les *associations interspécifiques*, même si ils ont commencé à s'intéresser à ces associations qu'ils nomment « sympatriques » ou « polyspécifiques »⁵. Une grande oubliée est la vie en commun d'humains et d'animaux. Ni l'éthologie ni l'ethnologie n'ont sans doute les outils conceptuels et méthodologiques qui permettraient de s'atteler vraiment à une telle tâche. L'éthologie peine toujours à concevoir l'animal comme un véritable sujet, néanmoins non superposable au sujet humain, qui devient souvent un individu et peut quelque fois être une personne (Lestel 2004). L'ethnologie, quant à elle, se voit encore trop comme l'étude des organisations sociales *humaines*. Ce faisant, elle néglige le fait que si les sociétés animales ne sont sans aucun doute pas structurées autour du symbolique, quelques-unes d'entre elle au moins le sont autour d'une certaine forme de raison, et toutes le sont sans doute autour d'une forme d'interprétation. La situation devient du coup plus claire. Ethologie et ethnologie peuvent converger l'une vers l'autre pour étudier les formes d'agencement qui conduisent humains et animaux à partager leurs vies et à vivre dans ce que j'ai désigné sous le terme de communautés hybrides homme/animal de partage de sens, d'intérêts et d'affects.

Communautés homme/animal et sociabilité hybride

Une communauté hybride homme/animal est caractérisée par la nature des agents qui y sont impliqués, fonctionnellement ou non, par la nature des processus qui s'y produisent, par les

représentations que les agents peuvent avoir des relations avec les autres, par les matérialités qui y sont mobilisées et par l'organisation spatiale et temporelle au sein de laquelle s'inscrivent ces processus. Il est important de savoir comment les caractériser en particulier à travers leurs configurations temporelles et spatiales. Comprendre une sociabilité hybride requiert de reconnaître une « biographie » à l'animal, et une singularité individuelle, c'est-à-dire une cohérence signifiante de ses comportements à travers le temps. La « familiarité » que l'homme développe vis-à-vis d'un animal est importante car c'est à travers elle que la vie de l'animal devient la vie de *cet* animal-ci et non de celui-là. C'est parce que je vis longtemps avec certains animaux que je suis prêt à reconnaître en eux une subtilité de comportement et un foisonnement d'émotions qui me poussent à leur attribuer une nature d'agent. Et c'est parce que nous partageons depuis longtemps le même écosystème que nous finissons par adapter nos rythmes de vie les uns aux autres.

Les *sociabilités hybrides* que nous avons commencées à explorer⁶ au début des années 90, constituent une modalité sociale fondamentale de l'humain qu'on retrouve dans toutes les cultures à toutes les époques et sous toutes les latitudes. Elle fait intrinsèquement partie de ce qu'est le vivant et se met en place bien avant l'apparition de l'humain, même si elle développe avec lui quelques-unes de ses expressions les plus remarquables. La sociabilité qui la constitue est électorale et locale. Ces associations sont d'autant plus riches et élaborées que l'animal a une capacité d'initiatives et qu'humains et animaux concernés doivent arriver à un *consensus* sur l'interprétation des comportements des uns et des autres. Humains et animaux qui vivent ensemble ont des intérêts, peut-être divergents, à vivre ensemble. Les relations entre humains et animaux ne sont jamais purement fonctionnelles et utilitaristes.

5 Par exemple Waser 1982.

Des affects puissants, positifs ou négatifs, en régulent au contraire les modalités. Il faut par ailleurs se défier d'une vision trop optimiste des communautés hybrides.

Ces communautés hybrides constituent des organisations sociales hétérogènes et interspécifiques dont les sciences sociales ont massivement négligé la dynamique. L'ethnologue voit toujours l'animal d'un point de vue symbolique ou purement matérialiste, même si la situation commence à changer⁷. Symétriquement, les chercheurs commencent à considérer la dimension comportementale des interactions entre certains humains et certains animaux dans des associations culturelles particulières. Hare et alii (1996) mettent en évidence un processus de *conventionalisation* entre jeunes chimpanzés pour communiquer par gestes, qui pourrait avantageusement être généralisé à d'autres types de communautés, en particulier interspécifiques, mais qui se restreignent sans aucune justification aux interactions entre chimpanzés. Une critique similaire concerne Krakauer (2001) qui étudie par exemple l'émergence de signes privés à l'intérieur d'une communauté animale et suggère que la cartographie entre signaux et référents s'établit par l'intermédiaire de contraintes fonctionnelles plutôt que par convention. Le système de communication acquiert ainsi une grande stabilité à travers sa diversité même. Krakauer ne sort pas du cadre des communautés monospécifiques. Il estime que les signes arbitraires émergent comme résultat d'une imitation sélective à l'intérieur d'une population qui est socialement structurée et qu'un signe arbitraire qui apparaît contribue à accentuer les interactions associatives entre des individus qui utilisent un système sémiotique partagé. Jamais il n'essaie d'appliquer ces idées remarquables aux relations homme/

animal. Il faut attendre les travaux hongrois⁸ sur les communications homme/chien pour que des éthologues essaient vraiment de décrire les interactions entre humains et non humains. Ces travaux, expérimentaux se passent cependant exclusivement en laboratoire et négligent en conséquence totalement la dimension ethnologique des phénomènes en jeu. Ils frôlent un enjeu massif sans jamais l'aborder.

La question de la signification au centre de la relation homme/animal

La difficulté centrale de l'étude des communautés hybrides réside dans le fait que les agencements homme/animal s'y structurent autour de la matérialité des significations et des comportements qui y sont associés. Or c'est précisément ce qu'éthologie et ethnologie ont le plus de mal à pratiquer : la première parce qu'elle répugne à trop attribuer à l'animal et parce qu'elle est coincée par ces présupposés naturalistes, et la deuxième parce qu'elle est mal à l'aise avec la dimension comportementale des activités qu'elle observe. L'approche biosémiotique de Jakob von Uexküll peut cependant être avantageusement mobilisée pour aborder ces problèmes. Elle peut être caractérisée comme une approche *non mécaniste* des activités de l'animal qui ne réagit pas aveuglément à des stimuli plus ou moins aléatoires mais qui *interprète des significations* qui suscitent des activités. L'animal est d'emblée un sujet qui accède à son environnement par l'intermédiaire de ses sens physiologiques – son Umwelt – en mobilisant ainsi des significations multiples. L'Umwelt d'une espèce se superpose à celle des autres, ce qui fait que des animaux qui partagent un même écosystème l'habitent différemment. Frederik Buytendijk (1952) fit converger cette biologie sémiotique avec la phénoménologie husserlienne et la psychologie comparée expérimentale et il

6 Lestel 1996.

7 Descola & Palsson 1996.

8 Cf. Miklosi et alii 2000 ; et Miklosi et alii 2003.

caractérisa l'animal comme une « *structure structurante* ». L'animal se constitue différemment suivant les espaces dans lesquels il se trouve placé, en particulier dans des communautés hybrides initiées par l'humain. Buytendijk montre ainsi qu'une pieuvre qui touche une tige de bois réagit très différemment à l'instrument que si un humain la touche avec cette *même* baguette, alors même qu'en terme physique les deux situations sont les mêmes. Comment comprendre les écarts de comportement de la pieuvre si l'on ne prend pas en compte la signification que l'animal attribue à ce qui lui arrive ?

Les relations homme/animal peuvent atteindre une très grande complexité parce que les animaux sont des sujets interprétatifs tout autant que les humains, et que les agencements entre humains et animaux sont fondamentalement constitués d'herméneutiques croisées asymétriques et hétérogènes – puisque si les uns et les autres agissent en fonction de leurs interprétations, ils le font à travers des compétences très différentes. Humains et animaux ne doivent pas seulement savoir ce que veut l'autre mais aussi ce que *comprend* l'autre. Le rôle du langage est très important dans la constitution et la dynamique des communautés hybrides homme/animal au sein desquelles se déroulent ces interactions même si l'animal lui-même ne parle pas. Les communautés hybrides reposent ainsi sur une *triple interprétation*: les processus d'interprétation par les animaux, les processus d'interprétation de ce que font et 'pensent' les animaux par les humains, et enfin, les processus d'interprétations qu'ont les humains sur les interprétations des autres humains vis-à-vis des animaux et des autres humains.

Ethologie et ethno-éthologies

Les interprétations croisées sur lesquelles reposent les communautés hybrides homme/animal sont éminemment culturelles, même si elles ne le sont pas seulement. Elles sont en particulier tributaires de la familiarité que les humains impli-

qués ont développée avec les animaux concernés et de l'habitation des animaux vis-à-vis des humains. La compréhension de ces communautés passe en particulier par la mise en place d'une ethno-éthologie *ad hoc*, dont les savoirs peuvent s'éloigner sensiblement de ceux de l'éthologie universitaire occidentale. L'éthologue universitaire est loin d'être le seul expert sur l'animal. Tous les professionnels de l'animal (chasseurs, pêcheurs, dresseurs, éleveurs, dompteurs, etc.) le sont aussi. Et leurs représentations ne sont pas moins « justes » et plus « populaires » que celles du scientifique parce qu'elles sont contextuelles et non objectivées selon des critères universitaires. Il serait audacieux de prétendre que l'éthologue connaît « mieux » les tigres que le dompteur, ou qu'il sait plus de choses sur les cerfs que les meilleurs chasseurs, du moins sans en avoir fait une comparaison sensée. Nous dirons que ces dernières ont un savoir *différent* – sans qu'il soit nécessaire d'approfondir ici ce qu'une telle notion peut vouloir dire. Son importance est néanmoins manifeste. Les représentations non universitaires, populaires ou savantes, de l'animal chez l'humain conduisent ce dernier à organiser différemment sa vie dans ces communautés. Alors que la physique populaire est littéralement fautive, la psychologie populaire fait partie intégrante du mode de fonctionnement psychologique de ceux qui l'adoptent. Il en est de même pour les éthologies non universitaires en question qui ne peuvent pas être qualifiées d'éthologies fausses mais plutôt d'éthologies *intégrées*, c'est-à-dire, contextualisées et acculturées – et ce point est tout aussi valable pour les éthologues universitaires qui appuient toujours leurs éthologies savantes sur des éthologies populaires (Lestel, 1986) – les leurs ou celles des autres.

Conclusion

L'étude des communautés hybrides homme/animal de partage de sens, d'intérêts et d'affects constitue un défi intéressant pour les sciences sociales en incitant ces dernières à tenir compte des

agents non humaines qui font pleinement parti des sociétés humaines dans la dynamique des ces dernières. La vie en commun réelle (et pas seulement symbolique ou imaginaire) d'humains et d'animaux conduisent en particulier à poser des questions qui restent encore très largement en friche comme celle de l'inter-rationalité (comment être rationnel en coopérant avec des agents qui ont d'autres aptitudes spécifiques que soi) ou celle de la nature précise des relations qui peuvent les humains et non humains⁹. En d'autres termes, aborder cette question des communautés hybrides requiert un double investissement intellectuel – empirique pour réunir des données qui sont encore trop lacunaires et conceptuelles pour penser la richesse de ce matériel. Il n'en reste pas moins vrai qu'il s'agit là d'un axe de recherche qui s'avère d'ores et déjà très prometteur¹⁰.

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9 Une tentative de réflexion systématique sur ce sujet se trouve dans Lestel (2007).

10 Pour une vision récente, on pourra lire les essais publiés dans Lestel (2006).

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