LEARNING PHYSICAL SPACE:
THE SOCIAL DESIGNATION
OF INSTITUTIONAL CULTURE

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This paper argues that cultural learning is a useful anthropological concept in analysing how neophytes - both first year students in the physics department of a university, and the anthropologist studying them - learn from reactions and other forms of social designation. The first year students have to learn that certain places, acts and objects are to be interpreted as vehicles for conceptions of belonging to, or exclusion from, everyday, institutional life. Familiar objects such as dresses and chairs are imbued with a specific significance as the act of sitting on a chair or wearing a short dress takes on a new symbolic meaning in a cultural context where inclusion and exclusion are a constant concern. By following and analysing what is involved in the process of becoming a physics student, the anthropologist is able to establish what may be seen as the cultural moral logic behind the inclusion and exclusion of students.

Introduction

Do institutions such as university departments organize the thoughts and acts of individuals through cultural symbols? And if so, how? Such questions might seem outdated and out of place. A preoccupation with symbols could be seen as belonging to a the kind of anthropology that dealt, forty years ago, with such things as the symbolic meaning of African trees with exotic names such as mudji or mulaka (cf. Turner 1969). My aim in this article, nevertheless, is to discuss how, in their first encounters with a university physics department, neophytes are confronted with cultural symbols, or at least symbolic elements, that can be learned only through social
designation. In this discussion, symbols and culture will be used as useful analytical tools for thinking about and interpreting social actions and reaction — not as empirical entities in themselves.

My point of departure is Clifford Geertz' concept of culture as a historically transmitted pattern of meaning embodied in symbols, or a system of inherited conceptions, expressed in symbolic form, by means of which human beings communicate, perpetuate, and develop their knowledge about and attitudes toward life (Geertz 1973: 89). Following Geertz, I define symbols in a broad sense as “any object, act, event, quality, or relation which serves as a vehicle for a conception — the conception is the symbol’s meaning” (ibid: 91). Several problems may arise in adopting definitions that were designed to deal with culture in a much broader sense (for example, the culture of whole societies, such as the Moroccan or Balinese) for a discussion of the culture and symbols of a university department. For one thing, we tend in everyday speech to connect the concept of culture with larger entities, and thus to look primarily at symbols that are widely shared — for example, flags as symbols for nation states and roses as symbols for love in western culture. A university department involves a much smaller and more transitory population. Here, one might think, that whatever historical transmission of “patterns of meaning embodied in symbols” takes place must be confined to the students’ acquisition of symbolic generalizations, such as Thomas Kuhn’s discussion of the formula f=m (1977).

My suggestion, however, is that concepts such as “culture” and “symbol” are useful in analyzing the various elements that combine to create what Douglas (1987: 16) refers to as the moral “thought world” of an institution. Institutions such as a university department may not generate totally new symbolic forms, but newcomers to institutional life have to learn that already existing and apparently familiar objects are imbued in the new context with new symbolic meanings, so that they can concretely to embody “ideas, attitudes, judgments, longings, or beliefs” (Geertz 1973: 91) within a specific institutional culture.

The recognition that physical objects can be endowed with new meanings within a new context entails, in a turn, a recognition that more fundamentally challenges Geertz' definition of culture, namely, that culture must be understood in terms of learning. According to Geertz, culture is “public because meaning is” (ibid: 12). I shall argue that the patterns of meaning embodied in symbols may not be as “public” to a neophyte as to a more experienced participant in an institutional culture. Neophytes have to learn what counts as meaningful in a particular institution. As culture, in this sense, only gradually reveals itself to the newcomer, the concept of culture as such has to be redefined in terms of learning processes. Cultural learning, I shall argue, implies a dynamic process involving the social designation of the relation between physical elements and cognitive space. Unlike the symbolic generalizations embodied in mathematical formulae, the symbolic meanings of objects cannot be learned from textbooks, but must be learned through social interaction within a particular setting.

I shall discuss this with some examples arising from fieldwork conducted at the Institute of Physics at the University of Copenhagen in Denmark, where, with the consent of the 37 students in my group and their teachers, I enrolled as a first year physics student and followed the group of newcomers from day one of their study. I attended classes, did homework assignments, went to events and parties arranged by the students and sought to acquaint myself with the overall life of the institute. Anthropologists are professional newcomers. Here I was in the rather unusual situation, for an anthropologist, of finding myself among a group of people who in many ways knew as little about the world we were to enter as I did myself. A fundamental characteristic of the learning process in general is that we are “positioned” as learners. In this particular instance, we were “positioned” as first year students. To be “positioned” means, among other things, to be designated a particular physical space; our movements as first year students were restricted to “students’ quarters”. This positioning simultaneously allowed us to learn the process by which a student gets “included” (or “excluded”), yet by definition restricted the field of learning in other ways.

Although I followed the path laid down for a physics student, I was from the outset positioned in a different way as an anthropologist with an interest in anthropological knowledge. It was from this position that I was able to learn, for example, how the senior students in the department made clear to the 37 first year students (and to me) precisely where we belonged in the physical surroundings, and what it meant to behave in morally acceptable ways in this particular institution.

Before long, some of the students in the first year group expressed satisfaction with the institution. Others, among them a student named Vianna, abandoned their studies there for good after only three months. One of those who stayed was Leonardo, who in a survey conducted after the first three months claimed: “Physics rules!” In classroom tests neither Vianna nor Leonardo got particularly good or bad marks: they both seemed to be average students. So what went wrong for Vianna, and what made Leonardo stay?

Processes of inclusion

When students enter the world of the Physics Institute they do not intend to stay there forever — but most intend to get at least a Bachelor’s degree and many already dream of a Ph.D. (Hasse 1998). Higher educational institu-
tions in Denmark, including this particular university department, are characterized by regular invasions by newcomers, of whom only a limited number stay for more than a couple of years. The authorities responsible for higher education regard it as a problem that a number of students embark on studies that they do not complete. This is of particular concern in the field of physics, where many students within a given cohort may leave without passing any major exams.

Examinations are one among a number of selection mechanisms that sort out suitable from unsuitable students. However, there is in general not a total correlation between a student's marks and his/her propensity to stay or leave (ibid.). All students enter with the intention of staying for at least the duration of a bachelor's degree, but many—the statistics say more than half—will have left the department within a year or two. When I asked students why they stayed or left, the reasons they gave seemed somewhat flimsy. Most of the students who left during the first three months stated that "the maths was too difficult" or that "the course did not live up to my expectations". Those who stayed expressed the view that the course was hard, but also fun or interesting. Processes of inclusion and exclusion are difficult to explain.

One way of amplifying the rather trite explanations offered by the students themselves is to supplement their statements with an analysis of empirical material based on participant observation.

The incidents described below may serve as examples of the ways in which people may engage in symbolic acts that give them a sense of belonging, or, conversely, become the bearers of symbolic marks that other students designate as "bad" and react against by excluding the bearer from social gatherings. In the presented cases, the symbolic values of particular acts or objects are endorsed by other people's reactions to them, reactions that can be argued to belong to, and represent, the specific cultural logic of the institution.

Many students seek out, and take a keen interest in, advice from senior students as to what gives one a sense of belonging in the institutional environment, just as they learn from hearing about students who, according to the senior students, do not fit in. To start with, none of the first year students feels at home at the institute—on the contrary, they are confused and express uneasiness and frustration about the new place and the many strangers running around and heading for unknown destinations.

According to Michel de Certeau, place can be defined as the order (of whatever kind) in accordance with which elements are distributed in relationships of co-existence. Place thus excludes the possibility of two things being in the same location at the same time. Space comes into existence in the movements people make—going through certain doors rather than others, going down certain hallways while avoiding others; space, in other words, is "practiced place" (Certeau 1984:117). If we take these notions a little further, the cultural meaning of elements and artefacts in places may shift when we move around them physically involving them in practice. In this process, the physical world becomes both a culturally ordered place and a culturally cognised space imbued with a particular morality and logic.

The senior students tried to help us make this world a little less chaotic by telling us quite literally where we were to go and how we were to behave as first year students. On my first day at the Niels Bohr Institute, a senior student, Lars, gave some of the members of our group (including Leonardo and Vianna) a tour of the buildings at Nørre Allé. We had already received a sketchy map of the Institute, but in practice the place seemed rather chaotic to the newcomer. Chairs, tables and blackboards were recognisable, but people's movements among them were not. Lars did what he could to guide us round this new world.

The building stretches several hundred meters along the road. Four tall towers connected by a low brick building punctuated by several huge windows. As we entered the left part of the low brick building, Lars explained that the furthest tower was called the D-tower and it was here that the physicists had their quarters. The other three towers housed mathematicians, chemists and statisticians—but Lars made it very clear that the best and most amusing place to be was the physics tower. As new students, however, we would not have much business in the D-tower. For the time being we would have to share our physical environment with hundreds of other students from the chemistry, statistics and mathematics departments going to and from the numerous rooms that went off the vast hall in the low building connecting the four towers.

Though we knew, of course, that educational institutions are comprised of different groups of people who are structurally identified as teachers or students, for the moment age was the only clue we had in telling them apart—and in any given case we might be wrong. We could not tell which of the older people we saw were lecturers in physics, nor which of the students we encountered belonged to "our kind" or which, on the contrary, were chemists or mathematicians; nor did we have any idea what they were up to as they went about their business. Midway down the long hall, known as "The Hall of the Long Walk", is the student canteen, composed of rows of identical tables and chairs. It turned out, however, that it was important where we placed our selves among them. "We normally sit at the end closest to the D-tower", Lars explained and pointed to an area at the far end of the canteen. We had now learned that the apparently identical chairs and tables...
were not identical after all. As we would realise in the months to come, what Lars had shown us was a place of belonging — the particular part of the canteen that was nearest to D-tower is a meeting place for physics students, both freshmen and students from the upper years. No mathematicians or chemists would think of sitting there — this particular bit of public space "belongs" to the physics students as they belong to it.

On the first floor of the hall, Lars showed us a library and various classrooms where we would have classes in physics and computer programming. We would visit the three other towers only if we happened to have classes in them — but D-tower was where we belonged. Lars and the other senior students stressed this repeatedly. Within the tower, however, we also had our assigned place. We were not admitted to the upper floors, which were reserved for the faculty, research teams and Ph.D students; our quarters were defined as a particular room on the ground floor. Lars opened a door to the left of the hallway — a door like any other. This led to the undergraduates' common room, which, Lars explained, was known as the "Absolute Space" or just "The Space" in a joking reference to Isaac Newton's theory on the absolute space.

This is not just any old room. Here, we were told, we could meet people of our own kind: again, no mathematicians or chemists would dream of coming here. We were free to take coffee from the machine in the corner and leave money in a box, and we would gather here for student meetings, chess tournaments and the like. There was also a tradition, Lars explained, that new students "took" the room. Each new group of students could become the guardians of the room, if they acted swiftly to conquer it. Right now, the room belonged to the "Friends of the Goat", and previously it had been occupied by groups such as "Club 11", the "Friends of Arnold" and the "Free Quarks".

Leonardo immediately suggested that we stage a "take-over". The room should belong to us. Together with another student, Victor, he came up with the name of our conquering band, the "Orthogonal Brotherhood" and declared the room to be ours. In the same breath, we were all embraced by this new identity: all of us belonged to the Orthogonal Brotherhood. Through this act, the room had thus become a particular "practiced place". From being the domain of the "Friends of the Goat", it now belonged to the "Orthogonal Brotherhood" (as it turned out, our goat friends had no objection to this, since it is part of the conqueroes' duty to keep the place tidy). In the chaotic world that met us outside of the room, we now had one more place of belonging, derived from our sense of fellowship in a particular group. We could now tell a story of belonging, which was founding a new space. This particular act of making a new story opens up for new practical action. And more: a new identity is made. The creation of a "we" — the Brotherhood — occurred simultaneously with the redefinition of a particular space and in this "culturally creative act" we were authorized as the legitimate heirs of the place (Certeau 1984:123).

As part of the group who were present at the "conquering" I was automatically included in the act — and this gave me a certain right to use the room along with the rest of the first year students. I was no longer just an anthropologist following a group of physics students, but a member of the "Brotherhood".

Other students who had not been present at the time of the "conquering" might pop in, but many of them never learned to use the room as freely as "we" — the Orthogonal Brotherhood — who now had a symbolic tie to the "Absolute Space". The name of the brotherhood, ascribed to whoever was present when we "took" the room, can be seen as symbolic of the act itself, which in turn can be seen as a symbolic assertion of belonging; thus the name itself established a "powerful, pervasive and long-lasting mood and motivation" (Geertz 1973:90) among the group of students on which it was conferred.

My enthusiasm over belonging to the undergraduate common room — my membership of the "Orthogonal Brotherhood" — should not, however, be exaggerated. I was still in many ways a stranger and was often designated as such. My presence was met with a general scepticism and I was not included in all the everyday activities, which the normal physics students engaged in. Among other things, I was excluded from participation in the first year "homework" groups.

Even so, I was tolerated as an anthropologist working alongside the physics students and through being positioned as such was able to gain new awareness. My membership of the Brotherhood legitimised my participation in certain student activities. As a "brother", I had earned symbolic right to use the room, and could clean the coffee machine just as well as anybody else. I was a little more part of the "we", and in the months to come the acceptance of my presence in the undergraduate common room opened up many new fieldwork opportunities.

The importance of easy access to the room was to be reinforced in the days to come when it turned out that the "Absolute Space" was a key location for the social exchange of information. Here I and the other students from the brotherhood heard about new lectures and new events and listened to senior students gossiping about good and bad lecturers. In the first couple of months, Leonardo and Victor often met with second- and third-year students in the common room, where they drank coffee, talked and played science fiction games. Acquaintances of the group also introduced
the brotherhood members to other groups of senior students who were putting on the annual physics exhibition or conducting physics experiments in something called "the playroom". Leonardo was even persuaded to join the students' council. Sometimes the senior students lent members of the Brotherhood a hand with their assignments. Being present in the students' room opened up a world of possibilities that appeared to establish closer and closer bonds between the members of the Brotherhood and the Physics Institute as such. The "Orthogonal Brotherhood" gave me a greater sense of inclusion in the student group as a whole and a place at the Institute to which I belonged and from which I could study the evolving relationship between neophytes and senior students.

Our position as physics students and as members of the Brotherhood who had a special entitlement to the common room enabled us to gain valuable experience and insight, particularly through our contact with senior students. The creation of new stories, and hence of a culture, requires this kind of "positioned" social contact in a defined space; culture resides precisely in this rather than in the walls or doors of a particular building. Since stories as such are invisible, it is difficult concretely to envisage the "taking" of the undergraduate common room or the fact that it now belonged to us rather than to, say, the Free Quarks. New stories must be learned by acting or by telling. As members of the Orthogonal Brotherhood we had learned that we now had a common cultural identity that was connected to a particular place. In the world of an educational institution, where exclusion is a constant threat, the symbolic meaning of this particular place lay in the concept of belonging — the "Absolute Space" signified our right to belong to the world of physicists-to-be and to the Institute as such.

As I have indicated, however, not all the first year students frequented the room. Some never went there at all, others looked in to see what was going on but withdrew, since they were not on intimate terms with the people present. Only those who had become aware of the room's function through their engagement with senior students had learned how the space had been designated as a crucial "practiced place", where one not only had a sense of belonging, but could acquire information that would help to establish stronger ties between the students who frequented it and the Institute as such.

Social designation

There are many different elements involved in the cultural learning process, and I can deal with only some of them here. To be "positioned" as a learner entails that we learn through the social relations connected to our position. An important aspect of learning through social relations is that we learn from the reactions of others and from their ways of designating the world around us — what I term "social designation".

For the cultural historian Lev S. Vygotsky, learning was a matter of social mediation, in which those who are older and more experienced help newcomers to learn. Vygotsky saw this social interaction mainly in terms of the relationship between the small child and its parents or teachers. In the course of learning the child internalises the meaning of the physical environment through social interaction. Vygotsky used the term "social mediation" to describe the process by which more experienced individuals point out the world to those with less experience, and the term "internalisation" to refer to the way in which the individual acquires and appropriates a given culture.

The child's learning is inseparable from this process of social mediation, but internalisation can be seen to have two phases. "Every function in the child's cultural development appears twice: first on the social level, and later on the psychological level; first, between people (interpsychological), and then inside the child's mind (intrapsychological)" (Vygotsky 1978: 57). This model can be similarly applied to voluntary attention, to memory, and to the formation of concepts. All higher functions, according to Vygotsky, originate as actual relations between human individuals.

An important aspect of the individual internalisation process is the recognition that learning takes place through "adult guidance or in collaboration with more capable peers" (Vygotsky, 1978: 86). Vygotsky exemplifies this process by looking at the child's internalisation of the meaning of the sign of pointing. Initially the small child reaches for the objects he/she wants, stretching his/her hand towards it. When the parents react to this movement by bringing him/her the desired object, the movement gradually becomes a gesture directed at others. The child learns, through the parents' reactions, that instead of reaching out to grasp the object, it is sufficient to use a "sign" — namely "pointing" — to communicate the significance of the object and elicit the desired reaction. Thus pointing as a sign for "I want this or that object" is gradually internalised by the child. Somewhere along the way, the child stops reaching and starts pointing.

According to Vygotsky, there are no such things as objective perceptions of the world; all perceptions are socially mediated. We are not born knowing the meaning of cultural signs or artefacts — whether these are physical spaces, chairs or axes, stories or symbols. The world is pointed out to us in various ways — we are told about or experience the social value of place and artefacts by learning from someone more experienced than ourselves, or we learn in practice from our own experience through the social reactions of others.
an ongoing story. Leonardo became a central character within it, identifying himself—among other things by his initiative in "seizing" the room—as a friend of the whole group. Apart from being an average student of physics, he was now designated as a person necessary for a number of established student activities. By designating the positive meanings of particular places and acts like Leonardo’s the senior students transformed the physical place into a moral space, with implicit rules for good and bad behaviour. Learning these rules involved, among other things, learning about where to go and where not to go, and which individuals were regarded by the senior students as having behaved well or badly according to a particular institutional logic. It is on the basis of this logic, which encompasses even the symbolic meaning of sitting on the wrong chair, that certain persons come to belong or, conversely, find themselves excluded.

Learning from reactions

Lars had shown us our place among the no longer identical tables and chairs in the canteen. Certain chairs had taken on a new meaning—they were ours. Belonging was now connected to physical space—and to move away from this physical place was to make a gesture of not belonging.

On one occasion I was sitting with a fellow student solving some exercises, and we had deliberately chosen a table a little further away than usual. From my point of view, I had chosen this position precisely in order to be able to speak more privately with the particular student, who apparently did not mind being temporarily distanced from the group, or did not yet realise the importance of belonging. The other physicists reacted to the fact that we had placed ourselves in an adjoining section by remarking that the anthropologists should not "steal students". Though everyone laughed, my fellow student looked uneasy and I felt that I was losing the goodwill of the other students. After a short while, we agreed to move back to the rest of the group. I experienced, in practice how the simple act of sitting on a chair could take on a symbolic meaning, and I learned this from the social reactions to this particular act. Though I was often granted the status of a fellow student, the mere act of placing myself outside the appointed seating area in the canteen had immediately turned me into a stranger who was trying to steal one of the physics students. I rarely encountered reactions of this kind so long as I stayed among the rest of the group.

We constantly received new indications as to places that were either important in some way or areas of danger. In time, our connections with the senior students from the undergraduate common room enlarged the institutional space to include many areas outside the actual institute. One
afternoon some senior students told us about an astronomical event that we could participate in observing. A few nights later, I met with some of the other new and older students (both freshmen and students from the upper years) near a lake in the centre of Copenhagen to study the darkening of the moon through telescopes put up for the occasion. No one objected to my coming along — and this lack of reaction communicated to me that I was part of the group. As long as we stood there along the lakeside, we were still part of the institutional culture of the Physics Department — referring to things said and done in the physical space we normally occupied. I belonged and carried my “belonging” with me even outside the Institute.

Belonging is fragile, however. The reaction, or lack of reaction, we get from fellow students can change our perceptions of where we belong and how we move in space. After three months of being “positioned” among the physicist physics students, I began, as an anthropologist, to do further exploration in order to get a more general impression of what went on at the Institute of Physics. I visited some of the upper floors of the D-Tower, interviewed some of the scientists and sometimes skipped the first year classes in physics and astronomy in order to be able to do this. This provoked a reaction from my fellow students when they passed me in “The Hall of the Long Walk”. “You’re shirking”, they claimed, as I passed them on my way in the opposite direction to the classroom. Consequently, I started to plan my interviews so that I would not have to pass through the great hall when there was a chance of meeting my fellow students. I wanted to retain their goodwill — and reacted in a way that I believed would prevent exclusion. In the process, however, I learned something about the cultural world of the institute. The established order made it legitimate for students to scold each other for being “in the wrong place”. Moral evaluations of this kind change who we are in our own eyes and those of others.

Initially, I was the only person in the first year group to be identified as a special person by virtue of being an anthropologist. Before long, however, I was not the only newcomer to stand out. Symbolic acts and objects prompt the exclusion of other individuals who do not “fit” in morally acceptable ways.

For me it was not especially problematic to be known as a “bad” student for not participating in classes that others believed I ought to attend. For the “real” physics students, these moral evaluations could be much more devastating. Not everyone could become part of the “brotherhood”. Among the first year physicists, a particular student, Vianna, stood out in a much more dangerous way. From the very first day she was identified as “frivolous”. Her behaviour and attire were often commented on. Vianna never become part of the “Orthogonal Brotherhood” since — apparently somewhat bored — she had left the group before we entered the “Absolute Space”.

At one point we were given some assignments to solve in groups of four, a common practice in physics departments. A group of students accepted me as a group member because they wanted to fill it up quickly before Vianna entered the room. When she arrived everybody busily looked the other way, as if she were invisible. It was clear from their bodily reactions that she was not welcome. She was not considered part of the group of proper physics students, and that it was therefore unacceptable that she share their physical space. She was “matter out of place” (Douglas 1966:38-40). The lecturer who had been writing down names of group members on the blackboard surveyed the class. Which group had room for Vianna? None, it seemed. All the students looked away from the lecturer and from Vianna.

Apparently, Vianna could not be included in the shared activity of "doing physics". According to Dewey, an activity is shared when "the activity of each is placed in the same inclusive situation" (Dewey 1916:30). In this case, Vianna was excluded without any explicit relegation to the status of outsider. Nobody asked her to go. After a while, she simply left the room. She was forced to leave by the reactions she evoked. The rest of the students not only identified themselves as having a moral right to occupy this particular place. We also felt morally obliged to exclude Vianna because, unlike her, we had by now learned to conform to the cultural logic of the institution.

Vianna left the room without an assignment to a group, and not much later, she abandoned the study of physics. Physical space is connected to moral space. “What is learned and employed in an occupation having an aim and involving cooperation with others is moral knowledge, whether consciously so regarded or not” (ibid 356). With her physical attributes, short skirts, magazines and gaggles, Vianna excluded herself from the “brotherhood” and was forced to resign and to leave the institutional place altogether. Around the time that Vianna left, I noticed in myself a tendency to moderate my own way of dressing in colourful clothes, and I observed my fellow female students doing the same. I also noticed that four of the five young men who initially had long ponytails had by now cut them off.
Moral logic

Although students like Leonardo definitely conveyed an impression of being "serious physicists" by their way of dressing in discreet T-shirts, leggings or jeans, in other respects they did not seem to behave in a more serious way than Vianna. They played science fiction games, made jokes and fooled around – sometimes even in the classroom. So why this reaction against her and not against them? It cannot be that she was excluded because she was a woman, since many other women, who did not behave and dress like Vianna, were not "frozen" out in the way she was.

It appears that a given person is included or excluded as a result of a social evaluation based on certain shared values and expressed through reactions to the individual's behavior. Some of these values are made explicit in the institutional lingua franca. You have to be able to pass exams in physics. You have to get reasonable marks. As Vianna was an average student, this demand should not have excluded her. None of the students ever mentioned bad marks as a reason for her exclusion. Their comments centred on her choice of reading material, on the fact that she could not keep quiet in the classroom and not least on her style of dress. It may seem obvious that Vianna's gaggles and pop magazines were considered out of place. Physics is a serious matter. Giggling, reading glossy magazines and especially wearing short dresses were regarded as signs of frivolity.

The cultural logic of a given institution makes tacit demarcations among everyday objects that are imbued with symbolic significance. To be "dumb" in the world of the Physics Institute is the most obvious reason for exclusion from the brotherhood of the clever. A short dress, conventionally seen as a sign of a sexy woman, is construed as a sign of dullness because, in the cultural logic of the undergraduate physicists, sexiness and dullness are equated. A short dress can therefore be seen as a symbol for "not belonging", since in this particular culture it carries connotations of "dullness". Since Vianna did not submit to this cultural logic, she acquired the stigma of "not belonging" and accordingly provoked negative reactions among the other students.

The social designation of Leonardo and Vianna as respectively "in" and "out" can be seen to be based on an institutional moral code, the particular logic of which imbues certain acts and objects with the meaning of "belonging" or "not-belonging". In this particular cultural logic, short skirts and pop magazines are "out", brotherhoods and science fiction are "in". One might argue that none of this has much to do with physics and should therefore be regarded as frivolous in itself, but in the cultural logic of the Physics Institute, science fiction is considered serious because it reflects real or projected developments in physics as a science, whereas pop magazines are completely unconnected with the discipline. Popular and well-respected students openly discuss science fiction literature and science fiction-related subjects. Discussions in the undergraduate common room and other places often centre on science fiction topics such as "warp speed", anti-matter as propellant fuel, and the possible existence of space creatures and cultures like "the Klingons". Through such discussions, students formulate questions that are important in certain areas of physics today or may have important consequences in the future: is there life in space? How can physicists make space travel to other solar systems possible?

Pop magazines and short dresses have nothing to do with physics, whereas belonging to a brotherhood could be seen as a good training for working in and being loyal to the large groups that often work together in this field. According to the institutional logic of the department, then, the creation of brotherhoods, or the act of playing around with and taking an interest in science fiction, are phenomena that are compatible with being a serious physics student (Hasse 2002). After a couple of months, students like Leonardo can tell stories of belonging, and claim that "Physics rules!" and is fun. The minds of these students are set on eventually reaching the upper floors of the D-tower, and no matter how they perform in classroom tests they have no intention of leaving – and nor does anyone seem to want them to leave. Other students, like Vianna, end their period as physics students after only a few months.

I learned from the praise given to Leonardo that he was considered a good student. It was considered good to be an active student politician, to know something about science fiction, to be playful and sociable. These characteristics would bring you moral acceptance, and Leonardo had them. He rapidly established contacts with senior students who, among other things, gave him a lot of useful information about how to deal with his studies. All of the Orthogonal Brotherhood members from time to time were able to get good advice from senior students whom they met in the undergraduate common room.

Vianna did not participate in the common room activities; rather than talking with other students she was talked about. The students' resentment of Vianna was expressed in these conversations about her and in students' physical reactions when she entered a room; she was frozen out through a designation as socially unacceptable. Though episodes in which a group of people exclude certain individuals by turning their backs on them are common to many institutions (and not only university departments), a specific cultural logic, not shared by other institutions or by Danish society in general, was at work in the expulsion of Vianna from the Physics Institute. There are many other places where it is considered proper to read pop...
magazines or to wear colourful dresses; in certain institutions this might be considered normal behaviour, whereas the “nerd” dressed in grey pants and a T-shirt (the normal dress code for physicists, according to their own descriptions) would be looked upon as an outsider.

In the words of the anthropologist Sharon Traveeck, physicists belong to an "extreme culture of objectivity, a culture of no culture, which longs passionately for a world without loose ends, without temperament, gender, nationalism or other sources of disorder – for a world outside human space and time." (Traveeck 1988:162). In their own self-understanding, physicists belong to a tolerant scientific community, where all that matters is the explicit and official evaluation of scientific results. In practice, however, their community is strongly demarcated. It is restricted by a socially designated cultural logic that makes clear that not everyone embarking on a course of studies as a physicist will be allowed to stay in the place where new members of that community are hatched.

Moving culture

Although it is now commonplace in many disciplines to refer to institutional cultures, the anthropologist who seeks to analyse institutions such as schools, universities or factories quickly arrives at an impasse. What is this culture we talk so much about? How can we account for people “belonging to” (Cohen 1982), “dwelling in” (Ingold 1996) or “feeling at home in” a particular institutional culture? Or, conversely, how can we account for people being excluded, expelled or blackballed from an institutional culture if we do not know what it is?

It is obvious that I and the 37 other newcomers to the physics department shared a visible, physical world of doors, walls and paths, and the sight of people walking down the main hall of the department, moving in and out of classrooms, clutching bags, looking over their shoulders, handling books and chairs. But where do we find the cultural meanings attributed to this physical world? Where is “culture”? Does it reside in the mind or in certain forms of behaviour or practice? (Rapport & Overing 2000:93).

Some of these questions have to a certain extent been answered by postmodern anthropology, which places culture in the texts we write (Clifford & Marcus 1986) or in the analyses we make (Hastrup 1995). Culture has "come home" – from being rooted everywhere else but anthropology, it is now firmly grounded in anthropological theory. After a period in which everyone seemed to claim the concept of culture for themselves (Strathern 1995, Gupta & Ferguson 1997), anthropology has reclaimed the concept and locked it up in the treasure chest of anthropological disciplinary discourse. Still, what precisely are we looking at when we set out to analyse an institutional culture? If culture does not reside in artefacts or other elements of an institution per se, is it only in the mind of the anthropologist? And if so, how are the various concepts and models in the anthropologist’s mind connected to what is present in the minds of others?

Thus far, I have considered this cultural logic in terms of what newcomers learn through their connection with a particular physical place of interaction allotted to them by others. Drawing on the concept of cultural learning, this kind of anthropological analysis focuses on the new ideas we form and the relationships we establish when we participate in various practices that simultaneously designate and transform the physical world in which we move.

Anthropological fieldwork focuses specifically on how bodies – including our own bodies as anthropologists – move, interact and place themselves within a particular context. The anthropological story of a culture cannot be separated from the movements made by a particular participation rendering logic to certain directions. All participants are positioned: their view is necessarily a “view from somewhere” and thus generates what Donna Haraway has called “situated knowledge” (Haraway 1991:188). This epistemological constraint limits what can be known not just by the anthropologist, but by any individual.

The lived body of the anthropologists becomes a path of access to internalization of what we in analytical terms can call culture. The world is always experienced from a particular point in a social space and the point from which we experience the world is in constant motion (Hastrup 1995:95). A body is to be understood as having ecstatic and recessive qualities – reaching out into the world with the senses being in a process of layering sediments of culture (Leder 1998:31-32, op.cit; Hastrup, 1995:88).

The validation of our data from this kind of fieldwork lies in the argument we are able to make based on these sediments of shared experience. As positioned as this body path may be, it opens for acknowledgement of the “degree to which culture is incorporated, yet at the same time is open for improvisation” (Hastrup 1995:95). We are neither cultural nor social dopes.

No matter what abstract concepts we use to define it, physical reality as such has consequences for people. “Culture” is defined from the outside, but also through our actual movements in the physical space we share in our social relations with other people. Reactions to our improvisations, such as sitting in the wrong chair, will inevitably tell us about the relation between the physical world and the cultural space we inhabit.
For the positioned anthropologist, the demarcation of what she/he terms "the field" changes according to its social designation. My field (and object of analysis) changed as I moved through space — within and outside the actual rooms of the Physics Department. As we learn its various cultural meanings, a physical place is transformed into a new space, as is our sense of identity and "belonging". From day one at the Institute of Physics, we started learning where to go and how to behave. This learning became the foundation of our judgment as to how not to behave and where not to go. Certain places, objects, and people were accessible and appropriate to us as physics students; others were not. We were not allowed to go everywhere we liked — but we constantly learned that there were new places in which we belonged, and others from which we were excluded. Culture is continuously being created — and, as neophyte anthropologists, we learn that apparently everyday objects and certain areas of physical space can have meanings that are not immediately evident from their appearance. They have to be learned through the guidance of more experienced participants.

Though the culture discussed here is not equivalent to the culture analysed in studies of, for example, "Fulani" or "Morocco", institutions such as university departments can also be said to create distinct cultural ways of organizing feelings, cognition and social structure, to generate "patterns of value", to commit the hearts of [their] members, and create a myopia which certainly seems to be inevitable" (Douglas 1987:75). Thus, for example, the Orthogonal Brotherhood allowed for a sense of belonging in the undergraduate common room, and meetings with senior students there offered insight into the symbolism involved in the moral judgment of fellow students. From being present in the common room and listening to conversations about Vienna, I was given keys to understanding why physics students tended to modify any disposition to dress ostentatiously: evidently, this was necessary if they wanted to avoid negative evaluations and comments. Short dresses symbolized "stupidity" and thereby brought those that wore them closer to exclusion — which in Vienna's case means literal exclusion from the classroom.

Those with greater experience — such as the senior students — accept those who learn to adjust to the symbolic space of the institution, while those who do not are excluded. As Mary Douglas puts it: "Who shall be saved and who shall now is settled by institutions (Douglas 1987:4)." However, institutions, consist of nothing more than a changing case of real people who more or less have learned the cultural logic of the institution by assimilating its specific moral code, a code expressed through a variety of symbolic elements.

Here the question arises as to whether the anthropologist and his/her "subjects" — in this case, the physics students — learn the same culture through social designation in physical space. What is the relation between "them" and "us" — between the "natives" on the one hand (be they physics students or members of the Fulani people), and, on the other, the anthropologists studying them?

The radical other
How can anthropologists ever claim that they have shared anybody else's cultural learning process? In making such a claim we risk falling headfirst into what Geertz has termed "the cognitivist fallacy" — the conception that culture consists of mental phenomena that can be analyzed by formal methods (Geertz 1973:12). The answer is that we can make no such claim — no formal methodology will ever give us a direct access to other minds. Our interpretations are only interpretations of what is said or seen, and the inside of others people's minds is not within our reach. When we deal with the culture and symbols of another people or group we can do no more than to construct as plausible a view as we can by bringing a theoretical approach to bear on our personal experience.

Yet although the knowledge the anthropologist acquires is positioned and partial, the very fact that he/she necessarily learns through social mediation means that his/her analysis is not only an "intra" analysis based on personal, individual interpretation. It is based on knowledge acquired through social interrelations. For the anthropologist, as much as for any other newcomer, the cultural meaning of symbols and signs and their moral attributions can and indeed must be learned through social designation.

As "human thought is social" (Geertz 1973:362) and "cultural acts, the construction, apprehension, and utilization of symbolic forms, are social events like any other" (Geertz 1973:91) we can acquire what we can analyse as cultural by learning through social designation. This does not mean, however, that cultural acts are necessarily "as public as marriage and as observable as agriculture" (ibid). Though we can straightforwardly observe certain physical elements within that culture, their meaning belongs to an invisible logical and moral space. Cultural meaning must be learned before it can be interpreted.¹

The weakness in Geertz' argument is the assumption that it is only the anthropologist who is "outside" an otherwise stable culture shared by the "natives". The anthropologist is given an a priori status as the only person who has to learn the meaning of symbols, acts and enunciations. It is assumed that the shared system of meanings is well known to all the natives, and that they respond to this cultural logic in ways that seem puzzling only
to the anthropologist. To assume such homogeneity in a group of so-called "natives" might be just as grave a "cognitivist fallacy" (pace Geertz 1973:12) as imagining the anthropologist to be a mind reader.

Like Geertz, I am aware that I do not have access to other people's cognitive processes, but I also know that they cannot access each other's. To imagine that a "we" in a group of physics students can be more than referential needs further explanation. I have argued that, on entering a new setting, all individuals must learn the various cultural meanings attached to physical phenomena in this context, and that this process of learning is necessarily ongoing.

We can never know if all the participants in a group learn the same by social designation. Even so, participation is a condition for learning anything new at all. From my position as an anthropologist who was temporarily enrolled as a physics student, and followed (more or less wholeheartedly) the activities of other new students in the department, I could learn enough to create new theories about the cultural logic of that institution based on otherwise separately experienced episodes. I do not claim that my particular theory of the cultural logic underlying these various episodes or manifestations represents the world as it is. It merely seeks new words for something that has not yet been enunciated (Hastrup 1996:19).

There are no privileged positions in the field; no "native" can claim to know everything about his/her so-called culture, just as no anthropologist can ever claim to know more about a particular everyday life than the "natives" do. The anthropologist can be said to be privileged only in the sense that, through his/her eccentric engagement in an activity the overriding purpose of which can be to understand a culture, he/she has access to certain tools of cultural analysis and an interest in creating anthropological knowledge.

As an interpreter, then, the anthropologist is never just another learner in a given institutional space. As Kirsten Hastrup has argued (1995), even though, like any other newcomer, I had to learn the new culture, my position as an anthropologist was radically different from everybody else's. My reason for being at the Institute was not the same as that of any other first year student trying to get to know a new and confusing place with the aim of becoming a physicist. The knowledge I acquired concerning institutional practice assumed a special meaning as empirical material for anthropological analysis. In this process of moving from "knowing" to "understanding", the shared reality of social experience is transformed from a largely implicit local knowledge to an explicit and external understanding which subsumes and transforms local knowledge" (Hastrup 1995:56).

From my position as an eccentric "radical other" (Hastrup 1995:7-8) I could follow paths that were not open to other participants. Some of the students might have wanted to leave after five years, others were aiming for the D-tower, still others would be forced to leave, but I was free to leave at any time and I expected to be considered a stranger throughout the time I was there. Though at times hard to bear, the moral judgment of those more culturally experienced in the Institute than I was would never turn me into a conforming physicist.

I learned from the social designation of myself, of others and of the physical place we shared. This long process of learning eventually resulted in a cultural analysis formulated long after I left "The Hall of the Long Walk". My insight into the world of physics students is a dynamic insight, which moves in relation to my own changing positions, relations and experiences.

Conclusion

What anthropologists, from their external viewpoint, nowadays analyse as "culture" is what might formerly has been regarded merely as a system of ideas connected to certain patterns of behaviour. Crucial in both instances, however, is the process by which newcomers to a group or institution can be seen to learn from the social reactions of more experienced individuals. The latter teach us what we are dealing with and who we are. This does not mean that no negotiation takes place and that cultural meanings are internalised as pure "transmissions". None of us behaves like a "cultural dope", but many of us adapt our behaviour as we learn from the social reactions of others. Of course, this approach leaves room for creativity - but in some sense this creativity will need to be socially acknowledged as such in order to survive (Hasse 2001).

Positioned learning processes give us particular insight into how to interpret a physical space. From my position as an anthropologist following a group of physics students, I learned what could be analysed as the particular cultural and moral logic of the institution involved. To be sure, the logic I learned was that of the students, but it was nevertheless connected to the institutional life of the physics department as a whole. Space and place are physically grounded - and so, I have argued, are the learning processes that lead to cultural knowledge of a given setting. There are a number of ways in which institutions may be analysed as "cultural", it is up to the anthropologist to chose the demarcations. Here I have chosen to focus on some of the more subtle factors behind the inclusion and exclusion by the group of certain individuals, which I observed through participating in the daily life of the institution. Many questions remain unanswered and, in particular, this analysis might be taken further by trying to show how researchers and fa-
ulty at the Institute related to the student logic that I observed. My perspective has been as limited as anybody else’s; no one can ever claim to have uncovered a “total institutional logic” as such, nor to have covered everybody else’s understanding of institutional life. We are restricted in our learning by the ways our bodies move through space. Our particular experience allows only selective comprehension (Rosaldo 1984). Our presence or absence in particular physical places has consequences for what we know and how we come to know it.

For certain students the daily movement through the glass doors at Närre Allé becomes routine and part of a long journey towards the DTower. Others soon learn that they do not belong in this particular world. The interpretation of signs reveals an academic culture where inclusion and exclusion are systematically expressed through symbolic acts, names and objects. Although a culture has no immanent physical location, it can be seen to be situated in a process through which more experienced members, who have learned the logic behind the exclusion of those individuals who will not (or cannot) learn to conform, acquire a sense of belonging to a particular place that is theirs. A group of newcomers cannot learn this logic merely through their recognition of seemingly familiar objects such as tables, chairs, teachers, blackboards, and fellow students; rather, the meaning of particular objects and acts, and the meanings they themselves bear as participants, will be gradually revealed to them through social designation – the actions and reactions of others. We all have to learn who we are and on what grounds to commit ourselves in a particular physical space.

NOTES
1. I here use the term “cognitive space” referring to a physical space that is recognizable.
2. This “barroom” consisted of a room of 20 students, five of whom were women, who followed Lavo on that occasion.
4. This discussion is much longer than the scope of the present paper allows. It could involve reflections on how individual creativity is connected to social designations (Hasse 2001) and on the preceptions of so-called “wild children” such as the Wild boy, the girl Genie and Interior Haas.
5. I have discussed the antagonistic relationship between “dumb, Sony and physicists” in detail elsewhere (cf. Hasse 2000).
6. The term “cultural institutions” can be used in two ways – as an abstraction for a specific form of behavior (as in “the institution of marriage”) or in the more “normal” sense of walled institutions connected to a specific practice, such as universities, jails or asylums. I use the term in both senses.
7. “Institutionalized,” the word used by Hasse, and “internalized,” my addition from the Vygotskian vocabulary, are both used here. However, the idea of incorporation is connected to the idea of the physical bodily sedimentation, whereas the term “institutionalization” is connected to the learning process.
8. Meaning and interpretation may be simultaneous – but cultural meaning must first be learned through social designation.

LITERATURE
Coren, Michel de
Clifford, James and George Marcus (eds)
Cohen, Anthony P.
Dewey, John
Douglas, Mary
Geertz, Clifford
Gupta, Akhil and Ferguson, James
Hasse, Dominika
Hume, Catherine
Hasse, Kirsten
Ingold, Tim
Kuhn, Thomas
Rappaport, Nigel and Ongoing, Jannine
Rosaldo, Renato
Sommer, Mati
OBITUARY

A LIFE WITH ETHNOGRAPHY
COMMENORATING INGER WULLF (1920-2002)

Graduating in 1956, Inger Maja Johanne Wullf belonged to the first generation of Danish ethnographers. From 1947 she was employed as a research assistant at the National Museum’s Ethnographic Department until she was offered a permanent position as curator of the South East Asian collections; a position which she maintained during her entire professional life.

In the early years of Danish ethnography, the discipline was firmly tied to the museum and under the strict leadership of Kaj Birket-Smith, the discipline's founder in Denmark. However, the museum collections were not the only object of research; the tradition of fieldwork-based research was also established from early on. Initially, Birket-Smith was reluctant to send female ethnographers to the field, but Inger Wullf, along with her well-known colleagues Henny Harald Hansen, Martha Boyer and Lise Rishøj (then referred to as “Birket-Smith’s ladies”), insisted on carrying out the field research that she had been amply trained for.

To Inger Wullf, the field became synonymous with the Muslim Yakan people of the Southern Philippines, where she carried out extensive fieldwork from 1960 to 1984. Her initial object of study was the particular local syncretic religious forms practised among the Yakan, whose cultural and cosmological traditions were incorporated into Islam. Her first fieldwork took place on the island of Basilan. Subsequently, when local riots for independence broke out in the early 1970s, the Yakan were forced into permanent exile on the island of Mindanao, where Wullf also went, and studied the Yakan’s lives as refugees. These altered conditions for the Yakan entailed a fundamental change of women’s role in the family, and this became a major focus of Inger Wullf’s research. Having only small plots of farming land in their refugee settlement, the Yakan women started producing the traditional Yakan weavings commercially, and in this way became the main breadwinners of the family.