3   Constructing the intelligibility of the events based on participant observation

Technical assistance to industry is a new field in the study of anthropology, and the analytical instruments used here are equally uncharted. All events constituting project implementation are submitted to one approach, consisting essentially of a type of fieldwork – gathering data through participant observation. This chapter examines all aspects of this fieldwork approach. Fundamental aspects are immediately introduced and citations from the events serve as illustrations. Instead of defining the method, it is more convenient to demonstrate it – thus avoiding an error-prone, purely theoretical description.

Beyond the research-related objectives, we have already envisaged an even higher ambition. The case studies should enable other developers and developees to find greater value in technical assistance in general. This requires integrating the results into the analysis. Developers and developees should not simply accept that latent processes decide the fate of the projects studied. Instead, by following the analysis itself, it will enable them to examine the latent processes in their own practice. Analysing Appui Technique and Autogeneración is an anthropological exploration of technical assistance. If such an exploration is validated and received by the particular protagonists[1] in the two cases, it can support others in understanding their own practices.[2]

The protagonists' efforts to understand their situation and their means to do so were not fundamentally different from those of an anthropologist observer. What distinguishes an observer is the privileged position of providing an interpretation. Protagonists reflect on events in just the same way as observers, and protagonists almost always seek to exploit this privileged observer position to change the course of events. This creates the possibility of understanding a technical assistance project. To explain this epistemological approach, one can compare it to a pressure cooker. A project is an ideological pressure cooker and the observer position functions like a little hole in that cooker, where some steam escapes. Being small in relation to the cooker, the hole does not alter the pressure inside, but allows the pressure to be measured. Similarly, the observer does not alter the project, but enables the ideological stakes for developers and developees to be read. These stakes include professional careers, reputations, pride, salaries, profits, market share and so on.

This epistemological approach has been pursued since the 1970s, especially with urban and industrial phenomena in contemporary France.[3] Ideally, understanding the social reality is the joint product of an observer and the protagonists of the social processes that occur in the field studied. The classic instruments of participant observation are reinforced. Fieldwork for this approach fails if it does not address the impact of participation or does not define how the analysis exceeds participation.

This epistemological approach is not specific to development aid, nor is it pertinent here because the observer was also a technical expert. Participant observation is always conditioned by the social and cultural processes inherent in the social reality being studied. This implies that a European middle-class observer (the author) was automatically linked to the colonial past and to development aid. Research was seen as another professional activity with motivations similar to those of business or development agency activity. But it is not the legacy of development aid which requires this approach. What makes this approach the only viable one in technical assistance is the intensity of the developer–developee encounter.[4] The protagonists of the cases involuntarily acted far from their social support. They took risks involving fundamental questions that would affect lives. The dynamics of the project were aggressive and changing. Despite the aid legacy, an observation was often a singular event. The approach that was used is pertinent to singular observations. Prolonged fieldwork to gather more data later on is very difficult in technical assistance.

Following on from this epistemology, we must first look at the stakes (section 3.1), then understand the protagonists' attempts to exploit the observer position (section 3.2) and finally recognize the responses of the protagonists and the development agencies to the written results (section 3.3). While these three steps of the analysis are independent, they are interrelated and reinforce each other. Because of the protagonists' manipulation of the observer position, we can verify what was at stake for them; it is then possible to see how their reactions to the written results (this present text was sent to them prior to the publication of this book) are determined by the operational routines of development agencies and, in turn, how these operational routines can be overcome. This is the fundamental reason why we can make progress on the basic questions of 'what were the individuals doing' and 'what were the development agencies doing'?

Where appropriate, the analogous elements from the two cases are juxtaposed to highlight the similarities. These are surprising given the gross differences in the context, as shown in Table 3.1 (Chapter 4 contains a detailed description). With a GDP of $US150, Chad is one of the four poorest countries of the world. Chad exports mainly cotton and imports all industrial goods. Without an economic base, there is no education or any health services for a large part of the population. Most employment is in the informal sector and provides no social insurance or vocational education that would allow anyone with ambition to move beyond mere survival. The technology in Appui

Table 3.1 Juxtaposition of the conditions and actors

	Appui Technique (Chad)	*Autogeneración (Mexico)*
GDP per capita ($US)	150	1,830
National average life expectancy (years)	46	69
Project budget ($US)	1,000,000	600,000
Implementation (years)	5	2
Intended recipients	Artisans in the informal sector,* mainly welders and metal-workers	Engineers in industries with more than 5 MW$_{el}$ energy consumption
Institutions	French NGO/local government	US consulting company/local government
Knowledge	Manufacturing of agricultural machinery	Engineering design of co-generation power plants
Foreign/local actors participating in the TA events	Martin, Jacques, Pascal, Thomas/Tahem, Dambai, Atula	John, Joe, Jack, Jim, Bill, Ben, David, Tom/ María, José, Ramón, Miguel, Hector, Aníbal, Rodolfo, Geraldo, Silvio, Severino, Lorenzo, Octavio, Juan

Note
*As they were also in daily contact with the experts, the most prominent are introduced individually; these are Mohammad, Osama, Rahman and Ngerbo. Others appear only by name. Appendix 1 shows a picture of them working on the prototypes which were the objects of the project. The literature concerning the informal sector is extensive.
NGO, non-governmental organization; TA, technical assistance; MW$_{el}$, megawatts of electricity.

Technique reflected this. The skills involved are no longer used in industrialized countries. In Mexico, by contrast, education, social security and infrastructure are well established, although these remain beyond the reach of a substantial part of the population. The technological objective of Autogeneración co-generation[5] was state-of-the-art energy engineering. Economically, historically, politically and technologically, the case studies are almost opposites. This serves two purposes. First, they represent vastly different ends of the technical assistance spectrum. Second, if no other variable explains the similarity between latent processes, the only common variable remains the developer–developee encounter in technical assistance itself!

3.1 Project dynamics generated by the actors' life-worlds

We now establish the relationship between the empirical object of study (the projects themselves) and the intellectual object proper (the developer–developee encounter). Can we simply confound them both, or can projects serve as anthropology's primary focus? The symbolic economy of the life-worlds (Chadian and French in one case, Mexican and US engineers in the other) determined the dynamics of the exchanges in each case. We will reconfirm this later by describing the idiosyncrasy of each implementation (Chapter 4). Here, we demonstrate that the different perspectives of the actors were coherent and complementary. Quotations from interviews and taped meetings confirm this.

The actors are introduced as they appear. They addressed each other by their first names, but those in the text are fictitious. The terms 'foreigner' and 'developer' are exchangeable and so are 'local expert' and 'developee'. 'Foreigner' and 'local expert' allude to their objective position as professionals. 'Developer' and 'developee' allude to their subjective positions as members of the project. 'Developer' is a rhetorical figure and efforts to decipher such a social category failed (for example Guth 1982). They are 'vaguely aligned by the virtue of their route into development' (Kaufmann 1997: 129). They are also called development experts, consultants, development cadre or advisors, but increasingly 'developer' is used in the specialized literature. 'Developee' (or developed) is the corresponding term for the recipient of aid and advice. By their willingness to participate in the observed events, these individuals were labelled developers and developees, but this is only one part of their lives. To label them further, we use the next best objective condition that they have in common: some are local and the others are foreign.

First, we must acknowledge the force of the 'imagined' that is constructed across the interface between foreign and local actors. Most of these actors felt that the figures of 'big brother', the developer's crusade, malinchismo[6] and so on were too simplistic. Nevertheless, the ideological operations that animated the characters of this psychological drama were violent and strong. Much energy was invested in these extravagant intellectual objects, in their construction and maintenance, although they were never reified by the actors. Beyond these objects lay a symbolic system that we can trace by reconstructing the points of reference.

In technological terms, one can identify an issue that limited the success of the projects. In Appui Technique, conflict of interest over the product quality control (oxcarts, grain mills) caused insurmountable disagreement.[7] At Autogeneración, the conflict concerned the quality of the data (the basis of the feasibility studies to be conducted) that the Mexican experts obtained from engineers in the plants. The Mexicans could not reproduce the technical discourse of the foreigners to explain the data, nor could the latter recognize the efforts made by the Mexican experts to work with the data. But both of

these technological explanations do not recognize the underlying ideological operations that rendered these differences debilitating. Such surface conflicts could have been easily resolved, as the foreigners in both projects were aware of the novelty of the technology. However, below the surface of explicit expressions the foreigners could not grasp the cultural reinterpretation necessary by the Mexican experts to enable them to share their criteria for 'quality' and/or the significance of the various data. The local experts recognized the technical arguments, but they did not distinguish between a foreigner's attempt to dominate and the professional exigencies normal for the foreigner in France and the USA. The ideological operations born of the one's gaze upon the other produced an interface between foreigners and locals. What appeared to be misunderstandings were actually disagreements over the meaning of the knowledge exchanged. Consequently, we must first study the meaning assumed on either side of the interface and then study how the experiences of living the encounter was reinvested by the actors.

3.1.1   Foreign actors

Although there are individual differences, all foreigners shared an ideal-type of handling cultural distance and the local experts shared another ideal-type.[8] The foreigners of Autogeneración were developers displaying the will of the energizer, for modernization and for progress. In terms of this project, the strength of character of the protagonists was demonstrated in their encounter with the local experts. The professional identity of the developer is ultimately defined in the field. The incoherence that the developers perceived in the Mexicans' reasoning reinforced their professional identity and determined their understanding of the interaction. But, the foreigner is an expert before beginning his/her mission in the target country. His/her expertise is acquired and is not changed, adapted or influenced by the various contexts in which he/she works. In this sense, we can say that the foreigners in Autogeneración were first experts and then developers. Whereas the foreigners in Chad were developers first.[9] Critical distance from development aid, which experts inevitably experience, constitutes a vital aspect of the practice of technical assistance. Institutional demand in industrialized nations creates the coherence of 'expertise'. The case studies show to what extent individual experts vary despite their institutional definition.

Central to the life-world of foreign experts is the rift between the reality of technical assistance and the moral anchorage that they can construct for themselves. In both case studies, the cultural distance that was lived and suffered by the foreigners was transformed into protagonism. Their alienation from the local actors fed their determination to continue.

John[10] had been working outside the USA since 1982. After each engagement, he affirmed that the challenge of the journeys and the encounters with other cultures excited him so much that he would not return home. He claimed to have hated his local colleagues in Egypt and Pakistan

(his recent assignments), but he learned to read and write in classical Arabic and Urdu. The better he knew what to expect from the local culture, the more readily he found references that permitted him to mark his cultural distance. Learning the local languages was one example. Martin[11] noted with pleasure that he had almost lived longer in Africa than in France. It had become a challenge for him to continue despite the frustration he felt towards aid and assistance agencies. He charged the agencies with the loss of integrity and accused them of forcing experts to spend their time fostering their careers rather than improving as developers by reflecting on their practical experiences.

Martin: Me, I'm not here to make blabla, I'm here to work and that's all. I say Chad, I don't know it, hmm, I'm not like those who come here for 6 weeks, go back to Europe, read four books and then make sense of it all; me, I have been coming to Chad since 1989, I say I don't know it and I don't have time to get to know it, that's it! So now, guillotine me! [Interview, 16/12/91]

Martin lamented the constraints that his professional cadre placed upon him; namely, to direct all of his energies towards the practical operation of the project itself rather than towards his local colleagues' competence. Questioning the nature of his actions was an act that rated similar to an act of the Inquisition. In this way, his role of professional developer became the sole motivation for him.

If a foreigner could succeed in understanding the local perspective, his/her protagonism would disappear because it is a function of the foreigner's alienation from the target culture. Dismantling cultural distance in order to enter the life-world of the local actor would require a restructuring of the developer's protagonism that is based on the local actor. However, such an appropriation of the local perspective is impossible as it signifies an elimination of the very cultural distance upon which the foreigner's justification as a subject, as a developer, is based.[12]

Martin was an effective expert, a professional, but he wanted to be a developer and a volunteer. He rejected the very idea of reaching the local actor. His job was to convey methods of organization, management analysis, etc. to countries and peoples in need of this technology. John learned Spanish, the language of '*los braseros*' (migrant workers) in his native California only because he considered it a language of importance in a '*world sense*'. The global and privileged point of view underlying these statements motivated both experts to seek a mission for modernization and development. The cultural distance brought to the target country and reconfigured with local experts produces this expert-privileged point of view. The operations that construct a foreigner as an expert give a coherence to the development experience that transcends the historical context of a given project and the individual's response to this environment.

If we define 'efficiency' as a foreigner's ability to explain his/her knowledge, Pascal was more efficient than Martin or Jacques. He was also a better expert because he was able to construct his own cultural distance through his devout Christianity. John was a better expert than Jim or Joe (of Peruvian and Argentinean origin respectively) because he, too, easily constructed his cultural distance. The link between subjectivity, expertise and otherness was constitutive of the developers' identities, identities manifested overtly in their life stories and implicitly expressed in their professional practice.

3.1.2   *Local actors*

We now turn to the local actors and start with the Chadians in Appui Technique. The local experts lived a corresponding experience: 'I do not accept this other, but I will conform myself to the other'; 'I will do as the foreigner without becoming foreign'. The symbolism of foreignness took very different forms in the two contexts. However, the local actors in both Chad and Mexico pursued their symbolic work of discovering, and distinguishing themselves from, what constituted the local for the foreigner. The logic of their work was similar. The differences among the local actors were the expressions of the relative success of their symbolic constructions.

Mohammad[13] requested the most technical knowledge because it was technical and because it was available to him in Chad. The origin of the knowledge was unimportant to him. Everything manufactured in Appui Technique, all technical reasoning, interested and motivated him. Mohammad considered my research to be an honour to his profession and exploited my presence frequently in front of the other artisans. If he had known how to write, he would have taken many notes while manufacturing prototypes with the experts.

Osama,[14] on the other hand, rejected the knowledge he labelled foreign because to him it represented a form of Western domination. The implementation of Appui Technique confirmed his fear and increased his determination not to be recolonized. On the first day of work, Osama brought a notebook but he found nothing that the experts discussed worthy of being written down. Significantly, though, he enjoyed my interviews with him. I went to his home, sat on the living room carpet and ate a West African meal. As the interview progressed, Osama acknowledged with increasing insistence that the experts' knowledge would benefit the artisans.[15] His curiously favourable reception of the interview process was no doubt due to the slant of my questions, which encouraged the comparison between the local experts and the foreigners. However, in the workshop where artisans, Chadian experts and foreigners built machines, everything changed. Having been to France, unlike his artisan colleagues, Osama could not dissociate the technical knowledge from its Frenchness.[16] His relationship to the project was troubled. He had difficulty working because he refused to participate in the transfer of knowledge and became defensive about his own approach to the work as an artisan.

Just as the subjective evidence of cultural distance helped John to operate better than Joe or Jim (who grew up in Latin American countries), the cultural distance helped Mohammad to use the encounter better than Osama, who had been to France and for whom the foreigners were less unknown. The subjective evidence was determined independently of the obvious conditions, such as Osama and Mohammad being Black Africans and the foreigners White and French. No such obvious differences existed between John and the Mexicans. Nonetheless, the symbolic constructions are always much more complicated when an actor knows more about the foreignness.

In Autogeneración, the various responses to the foreigners were similar to those in Appui Technique, especially in their individuality. Miguel[17] and Ramón[18] came into direct conflict with the gringo (a label often used for all non-Latinos). The foreigners were especially attentive to the two of them, as they were deeply engaged in the project and therefore offered the foreigners the best opportunity to make contact and progress in their work on the feasibility studies. The irony was that the foreigners placed their confidence in the very Mexicans whose work produced the fewest results. The foreigners' frustration ran deep. Several months later, the foreigners risked their professional relationship with the Mexicans by asking Miguel and Ramón to resign from Autogeneración. Having been sacked indirectly,[19] neither Miguel nor Ramón could tell the other Mexican experts how they felt, nor did the other experts want to find out what had happened to their colleagues. The symbolic work being so individual, it kept the Mexicans from talking about their experience or their intentions.

Three months later, I met Miguel for the first time since his forced resignation. During our talk, he made an indirect reference to his experience in Autogeneración in a story about a recent moment of reflection. While strolling from his new office, in a Spanish firm, to the monument to Mexico's independence, 'El Angel de la Independencía', that stands nearby[20] he suddenly asked himself: '*Why am I working here for a Spanish company?*'

That is where his story ended, as he could say no more. The hurt caused him by his dismissal, although evident in his attitude, went unspoken. I took his silence to be an indication of his will to overcome his pain. Nonetheless, his complex desire to understand, to become, the foreigner remained. He was proud to show me the business card that Bill had given him before he left. Finally, he explained that his children had teased him because he had begun to adopt the Catalan accent of his new employer. The other (foreigner and conquistador) '*se me pega*' (gets under my skin), he joked.

José's[21] experience was completely different. His 20-year career in power plant construction helped him to take charge of one co-generation feasibility study in Autogeneración, quickly improving the detail in the calculations. Interestingly, he was also keen to learn from me; someone with no practical engineering experience who had learned from engineering manuals. And he certainly realized this even if I never said so. In our second interview, towards the end of the project, he thanked me for having been able to '*help the seeds*

grow'. Proud to participate in a professional experience in which '*we learned who we are*', he felt that working with foreigners enabled him to confirm his Mexican identity. Clearly, the same foreign contribution that enabled José prevented Miguel and Ramón from affirming their identities. The symbolic distance from the gringo (the US American, despite the various nationalities of the foreigners, and the conquistador) that the local experts experienced had one of at least two effects on them. On the one hand, the distance could turn them in on themselves and reaffirm Mexican identity as their own – what they knew and what they loved. On the other hand, it could be projected negatively onto the foreigner as evidence of his/her imperialistic tendencies. The Mexican experts took opposing stances about the negotiation of the distance that separated them from their foreign colleagues, and this rendered all communication about the project difficult. In fact, they never talked about Autogeneración among themselves. Handling these foreign experts was a question so private that they could not share it, everybody had to see for him/herself.

❖   ❖   ❖

In Autogeneración as well as in Appui Technique, the actors' ways of coping with the encounter were in the end not so different. The local actors in each case approached the encounter with an intuitive sense of the other's foreignness. Their distance from this other was the assumption to which they were called to react in order to define their own positions as students of the foreign knowledge or protectors of local integrity. The intensity of this symbolic work, confirming their identity (Mohammad and Rahman in Chad, and José and María in Mexico) or suffering the oppression of their identity (Osama in Chad, and Miguel and Ramón in Mexico), was fundamentally a constituent of the complex local attitudes towards the projects. Cultural distance from the foreigner was an opportunity or a menace, made him attractive or repulsive. The symbolic forms appearing in Chad resembled those in Mexico. But the symbolic form in one context cannot be reduced to the equivalent form in the other context. These forms are systemic phenomena, but they are not part of the same system, as we will show by looking at the dimensions of developer–developee encounters (section 6.1).

It is possible to conceive of a project of aid and assistance as an optic, i.e. a frame that permits an analysis because it follows the limits of the actors' symbolic constructions of an encounter. For this reason, a developer–developee encounter can be analysed using the events of one project. Irrespective of the fact that it is a planning unit for the development agency, a project is a viable anthropological object. Seen from outside the frame, the efforts of the actors appear to be incoherent. The subjectivity of each actor becomes visible only when a reconstruction of the inside of this frame (see sections 4.1 and 4.2) delimits the scope of its definition and provides the optic for its discovery. In beginning within and then moving outside the frame, or microsocial space,

the links between the subjective realities of the actors become clearer, giving their identities more substance. The foreigners were not all the same kind of developer, nor were the local actors the same developees. The point of this study is not to construct a rigid topology. The resemblance of these encounters is an indicator of an anthropological condition of being in the world today. In response to the question posed above regarding the object of study, we can say that a project of aid and assistance is a viable object. This also allows us to study the exchanges between the actors of a project as an autonomous field of communication with a degree of independence from the context.

Furthermore, it is a very particular field because the stabilized symbolic exchanges that take place are generally unsatisfying to the actors involved. The obstacles that they encounter are the result of insufficient communication and of insufficient socially shared meaning. While the imagined other in Autogeneración and Appui Technique was always invoked by the actors to explain the foreigner or local actor present, most knew that, for example, the 'gringo' image was too simplistic. The symbolic work attempted to fill the absence of social meaning through which the encounter may be interpreted. Developers' life histories are chains of encounters with developees, where the building blocks of the life histories are leftovers of unsuccessful interpretations from both sides. The dynamics of the exchanges within a project were determined by the symbolic economy of these life histories.

So far, we can say that what was at stake for the actors were their personal and professional identities. Their interpretative horizon was far beyond the project itself, but they failed to understand this. Therefore, two elements of the project dynamics can be pursued further. First, how much of the subjective judgement of previous developer–developee encounters has changed for the actors and, second, how far were they able to communicate their home-grown professional knowledge to their colleagues abroad and vice versa? We will return to this in Chapter 5, when we study the latent processes driving the events. We have introduced this here in order to be aware of participant observation, and we can now determine how the actors manipulated my presence to change the events.

3.2 The position of an observer and the effects of observer presence

How did my presence function like a hole in the ideological pressure cooker? Visibly, I was recording the events by taking notes and taping meetings. Not knowing what I was looking for myself, the actors interpreted my interest according to their understanding of the events. Some actors discovered that my pretended (and certainly relative) neutrality was useful for them in influencing the events through rhetorical assertions. The first question to ask was, given my background and the conditions of my participation (assessed in section 2.2), to what extent was I able to aspire to remain neutral?

My participation in Appui Technique was possible because GRET was interested in my experience as a mechanic and an engineer. This interest is reflected in an article about my work in their journal (see Appendix 1 and note 38). Notably, 'Apprendre, c'est observer' shows that GRET used my results to claim comprehension of knowledge transmission in the Chadian informal sector. In Autogeneración, I was hired as a consultant to Hagler, Bailly, Inc., who saw an opportunity to increase my marketability as an expert – a marketability from which they hoped to profit in the future. These interests had much more of an impact on my participation than, for example, the fact that I was paid to participate in Autogeneración, whereas I financed my participation in Appui Technique myself. Perhaps more important projects – those that involve high economic stakes – are accessible not because of a biased use of the results in a journal nor because of the need to secure consultant personnel but because of the other strategic objectives that motivate development agencies; objectives that the researcher's results would validate. The reinterpretation and use of results cannot, therefore, be taken as a strong indication of their quality. Although it is often necessary, use of data does not, in itself, indicate scientific value or justification. Reflecting on the quality of the observer's results, one might ask 'are they applicable or not?' 'To whom and in the name of whom are they useful?' For us, the way I, the observer, was received during the participation, why and how I participated, is more important.

If we can say that an observer becomes a kind of pawn for the actors, there are three principle ways they can use him/her: the local actors can use an observer to reinforce or to reduce the cultural distance of the foreigner and the technology, and the foreigners can use an observer to overcome their alienation from the local context. These tactics were always executed indirectly by verbal allusion to my presence. A reference that would allow the actor to express publicly an opinion about my observing. In order for the tactic to be effective, it was important that the actors took the opportunity to make comments during the course of everyday interaction, as if it were a perfectly natural occurrence and not a staged announcement. Because of the spontaneous nature[22] of the comments, something was revealed about the exchanges. The actors' use of my presence introduced new parts of the project scenario. I encouraged this by answering every reference to myself as passively as possible while responding to the direct content proposed. My note-taking always remained unspecific.[23] Although I encouraged the use of my presence (the pawn's versatility), I did not create it in the first place. Such a role is determined by the project scenario, the observer fills a predefined position.

Accordingly, my presence in Autogeneración went beyond my participation as an engineering expert. When I was present, for example, the Mexican experts criticized the Mexican government. Since the project, as defined by the government, was called into question by the observation, they felt a need to distance themselves from it; hence, the recurrent theme of malinchismo

that surfaced in the interviews.[24] The close attention I paid to the actors, the microphone on my recorder and my careful note-taking were services offered to the foreigners as well as to the Mexicans, and, therefore, constituted a common experience for all. Ramón, the Mexican expert who had the most difficulty with the differences between the foreigners and the Mexicans, was able to use my presence as a means of understanding the encounter. Entering his office at 6 p.m., I asked him for an interview and he replied directly: '*I tell you straight away, I don't like the gringos, but I like their money!*'

Once I had suggested it, he wanted to do the interview right away. That evening, we sat in his office until 11 p.m., long after all the others had left. Having worked in Autogeneración, my observer position allowed him to express his feelings (towards working with foreigners). The next day, we had the following conversation in front of the other experts:

Ramón: Can we interview you?
Observer: Certainly, with pleasure.
Ramón: But seriously, there is something about your way of thinking that I don't yet understand, I would like to understand you.
Observer: OK.

He thereby signalled to his colleagues that an interview was an opportunity to communicate something about the relations between Mexicans and foreigners. No other remark or comment preceded or followed this signalling. The foreigner most conscious of the fact that his or her cultural differences were an obstacle to working as a team also used my ambiguous status to close the cultural gap. Two days after the previous exchange took place, John announced suddenly in front of the other experts present: '*Tom hasn't interviewed me, but has the others. I certainly hope he will interview me one day!*'

The interviews were seen as an effort to take seriously the team's difficulties and, thereby, to render them less debilitating. The majority of the experts were glad to be interviewed. Often, these were long monologues late into the night in the living room of the house I shared. Their appreciation of my presence differed according to how seriously they took my research. My method did not call into question the role of the developer in Mexico, which made my presence less threatening to the foreigners. My neutrality and the attention that I paid to what the foreigners called the '*caprices*' of their Mexican colleagues were important for the Mexicans. While for the foreigners I was part of those who suffered from the '*caprices*', I distinguished myself from them as the foreigner who acknowledged the difficulties that the actors faced. Thus, I enjoyed a privileged position of a trustworthy interlocutor *vis-à-vis* the Mexican experts.

The position accorded to me by the actors on both projects was generally a function of my usefulness according to the stakes involved. However, we can say that their interest in me stopped short of the strategic threshold in Autogeneración, as there was nothing that they wanted me to help them to

accomplish. Foreign and local actors supposed that I understood the other better, but my insights were not immediately useful. These were rather satisfying or comforting but not useful for a specific purpose. In Appui Technique, their interest crossed the strategic threshold. To make reference to my note-taking and my microphone during meetings was to intervene directly in the unfolding of the project.[25] Even those actors who tried to manipulate me in ways that seemed to run counter to the project's objectives could be said to have benefited from my presence. Martin, for example, used me as his informant in a crisis; Mondai, as a confidant to whom he could express his need for technical help (which he hid from the other artisans); Ngerbo, as a cover so that he could hide his damaged tools; and Tahem (the one Chadian expert who, as an administrator, had no knowledge of the technology), as a mediator to give the others the impression that he could communicate with the artisans. More important, though, was the way the actors were able to make sense of their own experience thanks to my presence.

The discussions with the French and the Chadians were more closely conducted than those with the US experts and the Mexicans because in Appui Technique I was used more strategically. I was accepted by the actors as an expert during the interviews. Thus, a free and open exchange about the events was impossible. The dialogue turned on our capacity to distance ourselves from the events and, thereby, to assume the position of witness *vis-à-vis* our own experience. Chadians and French presented their viewpoints as if they understood their relationships. Such a constraint necessarily produced a particular mode of response in the interviews. The French as well as the Chadian experts also avoided abstractions (of the foreigner, the foreign developer, the big brother, the savage) and only referred to concrete facts. Neither their understanding nor the evidence were coherent and so sometimes they stumbled from one contradiction to another.

It also came out in the interviews that, for the Chadians, my presence was a reminder of their conflicts. I was still a nasarra[26] who came seeking knowledge about Chadians. The artisans did not distinguish between a volunteer, a doctoral candidate, a researcher from IRD[27] or a consultant working for the United Nations (UN), all of whom represented to them neo-colonial foreign interests. Nonetheless, my interest in their culture and their perspective on the aid assistance distinguished me to some extent and gave me a privileged status. The following exchange is a typical example of this status. Again, it was enacted as a natural exchange between experts and artisans during normal work on prototypes.

One artisan intensified the exchanges by publicly requesting in Arabic that I go and find a piece of steel rod: '*Thomas, chouf masura*'. (In order to proceed with the manufacturing process, it was necessary to cut a piece.) When I failed to locate such a piece, I returned to the group and announced in French: '*We don't have any*'. The artisan applauded, commenting in French (to make sure that the rhetoric was *shared* between foreigners and Chadians) to the other artisans: '*You see, he understands!*'

He then used another kind of steel rod to continue with the manufacturing. I had enabled him to proceed with his work. The other artisans were most impressed by this display of complicity, as they had been convinced that as a foreigner I would not respond to a request in Arabic (or in one of the many local languages). My comprehension of Arabic proclaimed my intention to enter into a reciprocal relationship with the artisans, and caused them to redefine their relationship with me. My vocabulary of some fifty words was evident to everybody and I could not follow a real conversation. However, it appeared that the act of translating was much more important than the content of the translation.

Over the course of the next few days, I was frequently sought out by the Chadians. Often, they tried out questions on me before approaching other foreigners. Several of the artisans invited me to dine at their homes and meet their families (or, occasionally, their second wives).[28] I was also a cultural representative for those who wished to discuss different aspects of the French presence in Chad or the prospects (salary, etc.) for a welder in France. They invested me, a nasarra, with the power that helped them to construct their image of the foreigner. They could use me to situate themselves for, or against, the experience in Chad by allowing me to bridge or to reinforce the distance between the artisans and the foreigners. For all except one of the artisans (Mohammad), I provided the necessary buffer to prevent them from having to form links with the foreign experts directly.

For the French, my presence was a '*driving force that helped bring people together*'. They appreciated my ability to help them define certain elements of the local reality of the project. My technical credibility lent a familiar flavour to the 'local character' and, therefore, rendered it more acceptable to them. They asked for my opinion when it was useful, although they generally regarded my research and, in particular, my complicity with the local actors as a nuisance.

The foreigners had exiled all non-technical local trade to a stigmatized sphere of indifference where they would not be forced to confront it. The mere presence of an observer, even with a very limited capacity to translate and approach the local actors, provoked this confrontation and encouraged the French to develop their perception of the Chadians. On the other hand, Pascal and Jacques considered the very idea that a foreigner should be interviewed to be odd. Personal reflections, they reasoned, were irrelevant to their neutral technical perception of the project. Pascal found my research naive because he was of the mind that voluntary help needed no interrogation, nor did it inspire serious reflection. The link that I provided between the technical aspirations of the French and the local reality nonetheless led Pascal to attribute my interest to benevolence. Although there was a general dismissal of the interview process on the part of the French, my personality sometimes worked against this rejection. Jacques understood when I alluded to the local perspective, so much so that he told Martin he had '*confessed*' in his interview. As it was, Jacques's resistance to the interview process was also

moral – I could not be implicated in our discussion in the same way as him, given my ambiguous status on the project.

   The Chadian experts were more passive than the artisans during exchanges with foreigners; since they followed the project dynamics carefully, they understood the symbolic work better than anybody else. Little by little, they realized that my work actually constituted a pertinent interrogation of the project, a fact they had previously failed to grasp. Until that realization, they had simply shared the artisans' assessment of my presence and considered collaboration with the foreigners to be beyond their limits. Dambai, one of the local experts, was delighted by the way the artisans related to the observer.

Dambai: They take you as you are and this gain of their trust was really automatic. When you took notes, there were some who did not even worry about what you were writing. So, for me, this confidence … no one was intrigued by your note-taking, by whatever you were in the process of doing. I think the exchange certainly helped bring people closer together … very positive and less mistrust. [Interview.]

He found my presence to be useful to the artisans and perfectly in keeping with his own efforts to achieve a better understanding between them and the French experts. He was amazed that I should ask for his opinion during general discussions in Appui Technique. His experience with foreign experts had convinced him that criticizing technical assistance projects was categorically impossible. His colleague Tahem noted, however, that as an expert he had always considered my interviews when reflecting on the project. In his efforts to be as much of an expert as the French, he endeavoured to be an administrator like Jacques and to be as perceptive as an ethnologist.

   The attitudes of the actors towards me in Appui Technique can thus be described as both rich and complex. My research helped the actors to understand their own communication and the symbolic forces that organized it. In Mexico, on the other hand, my social role was more limited. The main reason for this limitation was probably the lack of contact between the beneficiaries of Autogeneración, i.e. the engineers in the factories of heavy industry, and the foreign experts.[29] The lack of personal contact in Autogeneración actually made it easier for the actors to talk candidly about their experience. Consequently, the analysis of this project relies more heavily on the actors' reflections in the interviews.

   If we can describe the role that I was made to play in Appui Technique as both passive and active (in the sense that they exploited my presence), in Autogeneración it was purely passive. The US experts recognized that my presence offered an exceptional opportunity to reflect on the respective difficulties they had in working with their Mexican colleagues. They did not use me or make reference to my work in office meetings as did the French in Chad, but considered my reflections to be useful to everyone. During their

interviews, the artisans (especially Osama, Rahman and Mohammad), for their part, made discoveries and reinterpreted their experience of the project based on them. They began to announce publicly what they had been unable to express previously. To a lesser degree, the Mexican engineers had the same experience.

In summary, we can say that an observer (the presence and the personality) had a substantial influence on the relationships that were able to evolve between foreign and local actors in both projects. It was because of my interest and attention that some artisans were able to rethink their reception of, and relationship to, the foreigners, as well as their own self-image as actors. The foreigners felt that the effects of this symbolic work took place because of me. This allowed them to move beyond their initial rejection of my objective assessment of their relationships with the Chadians and their resentment of my 'intellectual' and passive presence. The observer position helped all Chadian actors to see the attempts made on the part of some to bridge the cultural gap with communication. However, most were too implicated in the process to participate more actively in it.

The failure of technical assistance is the point of entry for the observer and it defines his/her subsequent position. The failure reflects the distance between the discourse of development and the possibility of putting it into practice. The breakdown between theory and practice, which produces the conditions in which the observer as a project participant can become a pawn for the actors, is the result of an historical legacy of domination inherited by foreigners despite their desire to move beyond it. The attention paid to the observer as a virtual participant who endeavours to understand the social processes at work appears at least to offer the means of repairing this breakdown. Consequently, the observer becomes the sounding board for both sides to express their explanations for the failure.

The local actors in both of the projects expressed the belief to the observer that blame for the failure should fall on the foreigners. The foreigners, for their part, verbally distanced themselves from the image of the developer who only did 'projects' and failed to engage in real human contact. The observer position was finally not defined by the goal of technical modernization, but rather by the effort on the part of a post-colonial subject to become a successful recipient of assistance. Although it would be presumptuous to suggest that the failure to assist is *necessary* for the redefinition of the local actor, I have observed that, in the case of such a failure, the post-colonial subject can be liberated by expressing his/her views on the project of assistance. Whereas for the foreigners the failure to assist determines the observer position, for local actors, who have watched their country stagnate or, at worst, degenerate since the moment of their independence, the inevitable failure of assistance is only indirectly responsible for the appearance of the observer on the site. Their use of the observer as a foreigner and sympathizer is also clearly a function of their need to express their cultural pain to those whom they believe have inflicted it.

While technical competence was a precondition to get access to these events, it is irrelevant for the observer position. Actually, less technical competence would have reinforced my position because my answers would have been more naive. The more the observer remains neutral between the foreigner's and the local's rhetoric efforts, the more the observer becomes a pawn. The absence of conflicting interests allows an actor to use the pawn for mediation.

Having been positively present (symbolically effective), an observer allows the actors to express what they cannot express in front of other actors. The pressure in the pressure cooker originates in the colonial past and in the failure of technical assistance, but the pressure is also maintained by the fear of expressing oneself. This fear reflects the very self-esteem of an individual, the intimate professional identity. Having been present positively, this fear is reduced. When the developer–developee encounter has symbolic importance for social identity formation, for example by posing the challenge to the Chadian actors to acquire the power of developmental knowledge from the former colonizer, the observer position approaches that of a coach or mentor. An observer brings nothing to such a position but attention.

The observer position provides some transparency to the encounter and allows the wider social processes to be separated from the tacit rules of development agencies. Later on, we will see that this observer position was reinforced by the interface between foreign and local actors. The interface was produced by the actors' efforts to change their encounter. The more turbulent the interface, the stronger the observer position. The manipulation of my position by the actors will be the key to the definition of the management goals in section 6.2. Looking more closely at the interviews of Osama (Chad) and Ramón (Mexico), we will see how these actors used my position to increase the permeability of the interface for technical knowledge. This will demonstrate how a more lucid and thoughtful usage of the symbolic nature of the projects would have been possible.[30] The management goals that are identified follow what these actors attempted to achieve by manipulating my position. Because their manipulation is central to the analysis,[31] we will now review how the actors saw my position in hindsight.

3.3 Responses to the results by the actors and development agencies

We have concluded that the New Directions phase in USAID enabled us to explore development anthropology in agriculture and health, but that the acceptance of the results was arbitrary and was not logically significant. Insufficient analysis of the research conditions left isolated results. As a result, new development paradigms were not examined for respective objects of study. Keeping the position of observer in mind, we now clarify development agencies' responses to the results of this study. These responses are specific to the fieldwork approach and to technical assistance to industry.

During project implementation, the observations were palpable and became a latent part of the actors' reality. Writing these observations up after the fieldwork can produce explicit results. In this form, the results could have led to lawsuits and conflict, but I am still on good terms with all actors. To an extent, this is a confirmation of my analysis of both projects, and the actors' responses to the results extend the analysis. Based on the responses of the actors of both Appui Technique and Autogeneración, it seems that no analytical interpretation can erase the effects of the interface, or its symbolic power to construct identity. The response by the development agencies that designed the projects is another matter. We begin with the actors of Autogeneración.

3.3.1   Actors' responses

María[32] expressed relief and satisfaction upon reading a full monograph (150 pp., now section 4.2)[33] on Autogeneración. But she was unable to resolve her contradictory feelings about Autogeneración. She maintained that the foreigners dominated the Mexicans in a way that was not in the foreigners' interests. She recognized the necessity of understanding the encounter during the implementation and that with hindsight the encounter appeared even more contradictory. She was unable to move beyond the image in which the Mexicans enclosed the foreigners, and she used my results to interpret her own experience. The comfort she felt when reading the monograph came from the confirmation that the difficulties had not been her individual mistakes. She read that the foreigners had been dishonest and manipulative. But she was also certain that the reason why Autogeneración had not succeeded was that John had not stood up to Hector and Aníbal, the engineers in the Mexican Energy Agency who oversaw the project. María was convinced that John had known better, and, had he used all his expert knowledge, he could have forced Hector and Aníbal to avoid their mistakes.[34] She was as dismissive of John as of Miguel and, in the end, she concluded that '*Mexico was in bad shape*'.

John has not read my results in detail, but he approved what he did read. When I asked for his comments, he replied that his time in Autogeneración was '*the darkest days in my career*'. Jack[35] read the monograph, listened to my presentation in a research seminar and commented in writing. He shared Maria's sentiments, but with the opposite conclusions. He considered my methodology to be appropriate to the task and added that the case studies provided '*good base material*'. He repeated the same opinion of the events that he had formed in Mexico: John's benevolent efforts to play fair had been in vain and my results reconfirmed Jack's experience in Algeria, i.e. that local experts are humiliated, for example, when a foreigner uses the local language to work. For Jack, a foreign expert is pretty much in a trap *vis-à-vis* local colleagues.

Unfortunately, my results were not shown to the Chadian experts before

the end of Appui Technique. I needed the agreement of Martin, who refused to distribute them. He would probably have been unable to continue working with the Chadian experts after they had read them. Given the instability of the administration in Chad, any foreign criticism would threaten the already tenuous tolerance of the foreign presence.[36] The results regarding the experts and artisans were simply too revealing for Martin to show them to the Chadian actors. Instead, he wanted to use them to prepare other experts for their assignments. In Autogeneración, on the other hand, the results were not threatening, even given the fact that John still works occasionally in Mexico today, and María and Ramón remain involved with the Energy Agency. Ramón, who avoided seeing me after María talked about my results, eventually conceded and read them.

It is predominantly the conditions outside the encounter that determine whether observation results can be returned to the actors. They are received by the actors, but the comprehension of such results can be difficult. As we have seen, during the encounter my presence was assessed and often exploited by the actors. The end of the project also reduced the usefulness of the observations. The actors read the written results as a kind of summation of the events that they lived. We can conclude from the testimonies that the results were available to the actors in a form that was peculiar to each of them and meaningful only to the extent that they corroborated the actor's memory. They were recognizable but inscrutable as results. That is to say, the actors were unable to use the analysis to reinterpret and process their experiences.[37] By the end of the project, they were so overcome by the idiosyncrasy of implementation that the events had lost significance for them. We have thus established that conditions outside the encounter can authorize or prohibit (Chad) the review of the results. The conflicts within the project did not hinder the reaction to my results; on the contrary, the conflicts facilitated the actors' reactions but rendered the objective understanding of the results difficult. The application of such results is therefore possible in principle but failed in the cases discussed here.

3.3.2   *Development agencies' responses*

For development agencies, my results called into question the very possibility of codifying and perfecting assistance methods because they demonstrated that there is no single management variable that consistently affects their progress. The failures and successes seem to be arbitrary. Working on a hit-or-miss basis (Scott-Stevens 1987: 97; Forss *et al*. 1988), the results cannot be used to isolate the elements that determine a project's fate. Since there is no mechanism in place to monitor implementation, we are forced to ask as an afterthought whether or not an attempt at technical assistance has achieved anything at all.[38] The target is either hit or missed, one cannot redefine the target nor judge only a part of a project. This is an implicit rule of the technical assistance trade. Different research methods are being studied, but the results

are still inconclusive. Stories about the real rate of failure are spread only through the corridors of the agencies. Continual failure justifies the many voices that speak of the disenchantment of technical assistance and denounce its false pretences. Companies such as GRET or Hagler, Bailly, Inc. are in a competitive market and are unable to change the rules despite their comparatively solid and long-standing track records. Donor agencies determine the rules. However, for agencies such as the IBRD or USAID, day-to-day management and planning priorities leave little time for constructive feedback. SIDA or GTZ might be better placed for this purpose. Nonetheless, we can use the reception of GRET and Hagler, Bailly, Inc. as a good indicator of the ultimate reaction by those who sign off the loans for such projects.

The reactions to the results on the institutional level operated according to a simple logic determined by development industry rules. Martin suggested that my results could be a valuable tool for GRET to use to select experts. Experts could be judged according to their reactions to the scenarios and tensions described therein. But such a tool would have to be produced by a member of GRET with its institutional bias (the particular 'developer' figure),[39] one industry rule. My results would not inspire any changes in the conception of the projects because the focus is on the practice of technical assistance and not on the role of the developer. Martin's suggestion also reflects the hit-or-miss basis: using the results only to prepare experts maintains the separation between the project design phase and the implementation phase. He knew that the implementation could only be questioned during the former, which reflects another industry rule. GRET later published part of my results in its journal (see Appendix 1). This dissemination of my results was in the interests of the Chadian artisans,[40] although they were not asked. GRET also used its journal for a full monograph on a 'micro-enterprise in the informal sector of Chad'.[41] The results relating to the developee are more 'useful' for GRET than those concerning the developer. The development agencies in France and in the USA were too caught up in competing for projects to engage in the level of self-reflection that the analysis invites.

But the most important conclusion to be drawn from the reactions to the results was that it was the exploitation of my presence during implementation that made my work interesting to the actors, not the utility of my written results. Even a monograph would not have been as useful to GRET (which could not have taken full advantage of its critical possibilities) as my presence during implementation was to the actors. To put this simply, the observation results have more meaning for the actors than they have for the development agencies. The complexity of the encounter between foreigners and locals is beyond the comprehension reflected in development agency documents, and it follows logically that the observation results cannot be related to agency records about project outcome.

The inadmissibility of the results at the institutional level is corroborated by the experience of Erika Moser-Schmitt (1984), who independently

published the results of her participation in an urban development project of GTZ.[42] GTZ refused to publish her research despite the fact that it was not at all incompatible with the policy of GTZ. She reflected upon the 'fear' that appeared in GTZ's resistance.

It is important to emphasize that one can reconstruct the experience on the 'inside' of a technical assistance project. The reconstruction may appear impossible for 'true–false reasons', but these can be circumvented in various ways. The caution of development agencies, or rather their resistance to qualitative social science research, makes sense insofar as the reconstruction of the evidence could indict them. The criticism is received as hostile and negative rather than constructive and useful. This is the agency's error and the basis for the antagonism towards qualitative social science. There was no political or professional reason for not returning my results,[43] either for the development agencies or for myself.

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The conflicting response to the results (understandable but unusable for the actors) was not a function of the methodology. The contexts in which research on technical assistance is performed contribute to such paradoxes. The experts know that feedback from practice is not pertinent to the careers in their institutions. We must endeavour to understand better the current conditions of research so that we can decide which approaches work and are therefore likely to yield useful results. However, the fact that the results were pertinent, but invalid for the development agencies, is a reflection of the institutional rejection of the approach. By increasing the status accorded institutionally to implementation, the review and application of the results would become possible.[44] The gap between the importance that I placed on my intimate knowledge of implementation and that of the engineering objects rendered my results useless to the US consulting company. On the other hand, the smaller gap between field knowledge and the objects pursued by the French NGO enabled them to use my results from Appui Technique for their own purposes.[45]

Using the actors' immediate reactions to my results, it was possible to deduce other reasons for the development agencies' rejection. The hybrid nature of the results (i.e. they dealt with both developer and developee traits) rendered them unusable for agency attempts to learn lessons in both cases. But there was no reason for this because the hybrid nature is not an anathema when 'multiculturalism' is generally positively qualified. Where does the unusability come from in the end? Development agencies acting as the last bastion of Western arrogance seems to be an unlikely explanation.

Another possibility is the symbolic complexity of the meaning of technology. This possibility appears to be more plausible when we look at the first latent process (before doing so in section 5.1, we will sum up each case study). An account of the manipulation of technological parameters within development

agencies could confirm this. Such an account is likely to show that 'the smoking gun' of the technocrat is problematic and development agencies are reluctant to try to control technocrats. Technocratic planners' disregard for the hidden character of the smoking gun may explain the contradiction between the rejection of the results and the recognition that the results are sensible.

Given the stakes for the actors, their use of my participation and the response to the results, it is plausible that the expansion of development anthropology beyond the New Directions phase was not hampered by intrinsic reasons. Despite the power differential between agencies and the 'beneficiaries', applied research can produce genuine results. Technical assistance to industry is a viable field for research and the actor orientation corresponds to the general conditions for ethnological fieldwork.[46] This is the basis on which three latent processes at work may be elaborated (Chapter 5). Commenting on the IBRD's *Handbook on Technical Assistance* and the evaluation results of the IBRD's Operations Evaluation Division, we will then see to what extent the operational routines in development agencies reflect the latent processes (Chapter 6). At least in principle, it will be possible to challenge the contradictory responses from the development agencies with the latent processes. In so doing, we undermine the contradictory response instead of deploring it here.

3.4 Other repercussions from the fieldwork

Understanding participation through the actors' reactions and through the responses to the observation results characterizes contemporary ethnological fieldwork. The ideological intensity of the encounter between developer and developee reinforces this. Ethnological fieldwork in certain areas of social reality is dependent on broad social processes. The epistemology described earlier is responsible for the viability of fieldwork in technical assistance. The specific context of technical assistance has two more implications for fieldwork. We outline these implications here very briefly, but then we will ignore them.

The role of technology in society is central to our industrialized world, where there is no longer any distinction possible between science and technology. Nuclear power, genetic engineering, cloning, climate change, artificial intelligence and many other issues constantly remind us that human values, democracy and a better future depend on the possibility of social choices in technology. What happens in technological assistance reflects this. These modern issues have made determinist analysis of technology laughable. Major technological shifts reflect profound values and hierarchies of society. Unless 'only a god can save us now'[47] from technocrats, one can take technical knowledge from one society and do something different with it in another. The question is, who can do that and how. We cannot be certain. Technical assistance practitioners do something different with technical knowledge in another society without knowing how they do that. This is one theoretical

foundation of this study. We do not know whether technical assistance is imperialist domination or liberating utopia because technical assistance practitioners transmit values unconsciously. In admitting this, we assume that transferring technical knowledge holds a potential for social choices. Showing that practitioners actually negotiate the cultural dimension of technology, even if they partly ignore how they do it, indicates the potential of social choices.

Leaving the wider debate out of this analysis of technical assistance does not imply a normative position. A deterministic view implies the domination of importers of technology by exporters, or of developing societies by industrialized ones. If deterministic views are wrong, then this domination does not follow.[48] If on the contrary, determinist views are accurate, these research results are not pertinent. Other than wasted time, the result is nil. Therefore, overall, excluding the wider role of technology and technological change in society does not imply a normative position.

To help this analysis, we use selective works of Marcuse, Feenberg and Habermas. Although theoretical research should include differences in their positions, our application is too limited to consider these differences. The same applies to social theory. This implicit supposition follows from the above. If there is limited inherent causality of technical knowledge, what is 'in the driver's seat' in technical assistance? As we have seen with regard to the actors' life-worlds, the identity of developers and developees plays a fundamental role. At the end of this study, we will have reviewed more arguments so that we may conclude that technical assistance is fundamentally determined by the shifting identities of the actors. The participants of Autogeneración and those of Appui Technique are not the same developers and developees, respectively, at the end of these technical assistance events.

The theoretical works of Friedman, Giddens and Habermas concern modernity as a specific historical movement. The actors of technical assistance have by definition a modernizing ethos. This creates a specific identity positioning. The Theory of Communicative Action has often been criticized for having some arch-modernist implications. Identity formation being a fundamental part of technical assistance, referring to this theory could represent an acceptance of these implications. In other words, distinguishing strategic from communicative action in the encounter between developers and developees (section 5.4) could imply that their communicative competences mark levels of modernity. Similarly, Giddens's theoretical work on the self-reflexivity of individuals in society could be interpreted as being about technical assistance. The global anthropology pursued by Friedman (used in section 5.2) concerns available identity positions in a global identity space. Again, these theoretical positions are not always compatible.

Regarding both technology and social theory, selective applications do not require theoretical clarification because the quality of fieldwork is of central importance (therefore it is evoked here). The actors' faculties are more important than theoretical coherence. Ethnological analysis establishes the

fundamental conditions of developer–developee encounters. Participant observation in technical assistance, as described above, can neglect both technology and social theory because the actors' faculties determine what is going on. The two implicit assumptions in this study are justifiable because participant observation for ethnological analysis is feasible. The theoretical demonstration of these fieldwork implications will be addressed later. Readers familiar with these theoretical aspects might approach the following interpretation of the events with this in mind.