SOCIAL COMPARISON AS SOCIAL CONSTRUCTION
Theory and illustration
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I. THEORY

1. Introduction

By social comparison, we understand in principle a comparison between Self and Other, or in other words between cognitions which formally refer to 'socii' (for it is clear that the cognition 'Other-like-Self' formally refers to a socius of Self, and vice versa). However, the meaning of Self and Other, just like all meaning, is also what we call 'socially constructed', and thereby we understand 'constructed by the sense-giving interaction between subjects'. Now, in the case of Self, one of these subjects is by definition the owner of Self - let us call this subject the Ego - and the other subjects - let us call them the Alters (in order to not confuse them with the Others, which are the constructed objects of comparison with Self) - are not the owners, but those who help the owner, thus Ego, with the social construction of Self. Thus, in short, the social construction of social comparison can be reformulated as the Ego/Alter-construction of the Self/Other-meaning.

It is immediately clear that there are two very different definitions of the concept of 'socii' combined in this formula, namely on the one hand a definition in which socii are the other subjects, the Alters, with whom Ego can coordinate activities in a sense-giving way - this is the ***intersubjective*** or Ego/Alter-definition of socii - and on the other hand a definition in which socii are the constructed objects of comparison with Self, or Others - this is the ***interobjective*** or Self/Other-definition of socii. The latter is obviously a product of the former and, therefore, the two definitions of socii can never completely and consistently be reduced to each other, just like the elements of a set can never completely and consistently be reduced to their set (e.g. Nagel and Newman, 1958). The intersubjective definition of socii is like the interactive definition of conspecifics in biology, namely the other organisms with whom an organism can mate and reproduce its own life (this, indeed, is the criterion which Linaeus used to categorize species). When we exchange mate for sense-giving interaction, and own life for the meaning of Self and Other, then we get the intersubjective definition of socii in social comparison. Its opposite is not the individual subject (for that is actually an internalized version of the coordinated interaction with Alters), but autism, or literally the inability to coordinate activities with other subjects in a sense-giving way.

2. The social construction of meaning in general

Before looking at the social construction of Self and Other in particular, let us first look at the social construction of meaning in general, for it is clear that what holds in general, should also hold for more particular cases, only in a more particular sense.

Meaning, by definition, is always intersubjective, in the sense that it always reflects a coordinated interaction 'between' subjects. For instance, the meaning which we call 'stone' (or 'pierre', or 'stein', etc., depending on the language), is by definition the expression of a specific, in this case a 'stone-like' interaction between subjects, which we have internalized in our concept of stone, and which we reproduce quasi-individually (that is as if it were an

individual discovery of some a-priori-meaning in nature), each time we recognize an object as stone and/or refer to it by words. Of course, once we can refer to meaning by words, we can also produce new meaning by verbal coordinations, leading to a so called 'discoursive construction' of reality. But it would be wrong to restrict the social construction of meaning (as some social constructionists tend to do) entirely to this verbal mode of coordination, because as just said, each concept (and a fortiori each sentence and story in which concepts are combined) is already in itself a sedimented community of coordinated interaction, or in other words a social construction.

The fact that meaning is by definition a social construction also implies that the so called perceptual cues of meaning are a social construction as well. For instance, when we recognize in the round and glittering cues of a stone the perceptual features of 'a boulder', then this is not because the stone itself emits this meaning to us via these cues, but because we ourselves project the social coordinations of a 'boulder-meaning' in what we see (say the coordinations of picking it up to throw, or cutting it in pieces to make instruments, etc.). If we had been raised in a different culture, say one in which we never coordinated our activities in a boulder-like way, but in which we worship the sun, then the same cues would not make us see a boulder, but something like 'a child of the devine sun' (e.g. a small round and glittering sun), and we would probably pray and dance for it, or the social coordinations of a devine meaning, instead of pick it up to throw, or cut it in pieces to make instruments. This is no problem as long as we live in our own culture, for the meaning of what we see simply reproduces, virtually or factually, the social coordinations which led to that meaning. But when we interact with people from alien cultures (read alien communities of coordinated interaction), then we obviously get in trouble, for then we must coordinate our activities with people who seem to pray for a boulder, or who seem to cut a child of the devine sun in pieces, and the latter is not only what we call false or crazy, but also what we call 'sacriledge'. Now, truth- or reality-problems of that kind are usually resolved in an 'orthodox' way, that is either by 'colonization' (e.g. forcing the weaker party to adopt our coordinations) or by 'excommunication', not only physically (e.g. expulsion or even killing), but also symbolically (e.g. laugh at them, call them crazy, etc., or in one word 'psychologization', see e.g. Moscovici, 1976; Mugny, 1982). But when the forces are more or less equal, and when then interaction continues (as is usually the case in experiments in which the experimenter does not allow subjects to colonize each other or to stop the interaction), then new social coordinations or new meanings may emerge, which did not exist on either side before (e.g. Doise and Mugny, 1981; Mugny, 1985; Perret-Clermont and Nicolet, 1988). In this way, or thus by the constructive resolution of socio-cognitive conflicts of coordination, people constantly construct new meaning, which they internalize, not only in their private mind (e.g. their concepts and thoughts), but also in their public mind (e.g. their books, rituals, institutions, etc.), and which they obviously use later again, for the more or less orthodox socialization of newcomers in their society.

3. The social construction of the meaning of Self and Other in particular

What holds for the social construction of meaning in general, holds obviously also for the social construction of the meaning of Self and Other in particular, that is to say that also in that case the meaning is a product of the coordinated interaction between subjects, the question only is: which subjects and what coordinated interaction? Now, the answer to that question is, in principle, very simple, namely the subjects are by definition the Ego and the Alters, and the coordinated interaction is by definition one in which Ego's ownership of Self is differentiated from Ego's non-ownership of the comparable Other. This is schematically shown in the following figure (see figure 1).

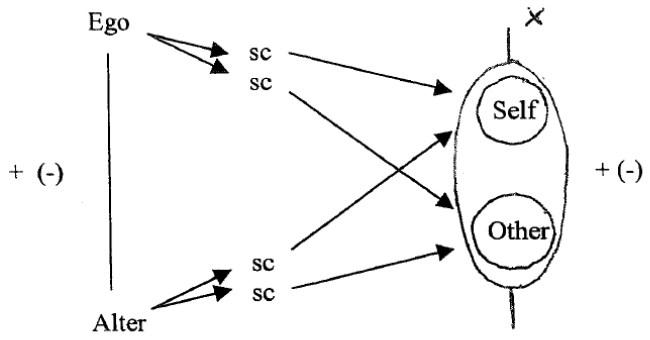

Figure 1: The Ego/Alter-construction of the Self/Other-meaning

To the left in figure 1, we see the coordination between the Ego and the Alters, which leads to the meaning of Self and Other, and to the right, we see the resulting meaning of Self and Other, with the necessary integration (large circle) and differentiation (smaller circles) of both concepts. This integration and differentiation is formally necessary, because it is obvious that without integration, Self and Other cannot be defined as socii (that is, as comparable members of the same category of meaning), and that without differentiation, Self cannot be defined as a unique socius, namely as the only one which is owned by Ego. However, the fact that Self refers to the only socius which is owned by Ego, implies that the differentiation from Other is by definition a 'preference' (e.g. a preference is by definition a discrimination in which the subject construes a stronger appropriative relation with one of the differentiated elements, and in the case of Self versus Other, this is by definition with Self). It is this necessary 'preference' for Self, in the psychologically valid differentiation from the Other, which is symbolically expressed by the positive sign, or +, to the right in figure 1, and the vertical axis, X, is a symbol of any dimension upon which this preference is projected. By implication then, X is a social value, or literally a dimension in terms of which Ego, together with Alters, construes the psychologically valid meaning of (read preference for) Self in comparison with the Other (and from which all other preferences, as forms of appropriation to Self, are necessarily derived).

The other positive sign in figure 1, namely between Ego and Alter, is a symbol of the 'cooperation' between Ego and Alter, which leads to this shared preference for Self. This cooperation develops itself in two basically different ways, namely first 'altruistic' and then 'commercial' (which does not mean that the altruistic cooperation cannot continue after the commercial one, but it must in any case come first). For instance, in the very first stage of life, namely pregnancy, the foetus, or in other words the future Ego, is connected to the mother in a symbiotic way, which means that it gets total priority above any other foetus outside the womb, simply because it is part of the mother's own life. Immediately after birth, however, this total priority is no longer provided symbiotically, but behaviorally, which means that the baby must cry or show other symptoms of need in order to get help. Of course, the reason that parents or other caretakers provide 'altruistic' Alter-support for the baby's growing Self is not free, but is paid back in terms of 'vicarious' rewards, not only in the short run (e.g. the immediate vicarious pains and pleasures for the Alter), but also in the long run (e.g. the continuity of the Alter's own genes, own ideals, own religion, etc., in Ego's future life). Thus, in a sense, altruism is a form of delegated Self-interest (e.g. the Self of the Alter that is delegated to the Self of the Ego), or of vicarious Ego-ism (the existence of the Alter which is vicariously related to that of Ego). However, what starts as pure altruism in life, is soon complemented, if not totally replaced by more 'commercial' forms of

cooperation, or the coordinated preference for Ego's Self on a basis of Ego's capacity to satisfy, more than competing Others, the Alter's own needs (e.g. needs which are not derived from the vicarious relation with Ego). The combination of both forms of cooperation, namely the altruistic and the commercial one, leads to the so called 'realization' of Ego's Self, and so we see that Self-realization is always 'cooperative' and 'competitive' at the same time, namely cooperative with Alters (as well the altruistic as the commercial ones), and competitive with Others (as well those competing for altruism as those competing for commercial preferences).

We can also recognize this Self-supportive cooperation in many other aspects of human life, for instance in the reciprocity of liking, in mutual friendship, in love, in gratitude, etc., but also in what we call 'feelings of justice' (e.g. the feeling that Alters see the difference between Self and Other 'right' or 'just'), and obviously also in what we call 'Self-justification' (e.g. the explicit attempts of Ego to convince Alters of a positive view on Self, for instance by attributing failure to cirumstances, etc.). Of course, we can also recognize the same principle of cooperation in its opposite, or in Ego's reciprocal rejection of any Alter who seems to prefer the Other, instead of Ego's Self in terms of X (e.g. terms which have already acquired the meaning of a valid reference to Self). We can symbolically express this reciprocal rejection of negative Alters by means of two negative signs, left and right in figure 1, instead of by the current two positive signs. Needless to say, however, that both representations, namely the double positive and the double negative one, are both representations of what we usually call 'balanced relations', or relations which express the necessary coordinations of what we intend to say, in this case the necessary ownership of Self (e.g. Rijsman, 1981).

The ***intermediate*** symbols in figure 1, namely the sc's with the horizontal lines, are symbols of the perceptions which, due to the specific coordinations between Ego and Alters, turn into 'social cues' of Self and Other, or in other words in cues of 'socii' (the reason for which we call these cues 'social' instead of merely cues). These social cues can be anything, but we can sensibly reduce them to four major classes, namely 1. Body (with obviously as well the proprioceptive cues, which only pertain to Self, as the exteroceptive cues, which pertain to both Self and Other), 2. Behavior (e.g. words and deeds), 3. Possessions (e.g. things people have, and which become symbols of Self and Other), and 4. Groups (e.g. the groups and categories to which Self and Other belong, and which are soically construed as references to the meaning of Self and Other). The latter category of social cues, namely groups, is often called the 'Social Identity' of Self (e.g. Tajfel and Turner, 1979), but is obvious that every identity of Self is to some extent 'social', in the sense that Self is always, implicitely or explicity, a socius of the Other (which also implies categorization, see the large circle in figure 1), and is always, implicitely or explicitely, construed with Alters (which are also socii, but in the intersubjective sense of the word).

4. Social validation, social attribution, and social comparison, as equivalents of respectively the intersubjective, the intermediate, and the interobjective dimension of social comparison

In our previous publications of this social constructionist model of social comparison, we have generally referred to the intersubjective (e.g. the Ego/Alter) dimension of social comparison as 'social validation', to the intermediate (e.g. the social cue) dimension as 'social attribution', and to the interobjective (e.g. the Self/Other) dimension as 'social comparison' strictu senso (e.g. Rijsman, 1978a, 1980, 1981, 1983, 1984, 1985, 1988a, 1991, 1996c, etc.). These three terms, social validation, social attribution, and social comparison, are obviously borrowed from the classic literature on social cognition and social influence, but it is clear that a social constructionist interpretation gives them a different loading.

Indeed, in the classic literature on social cognition, social attribution and social comparison are generally described as products of the individual subject, say of the Ego-solo, upon which other subjects, say Alters, may or may not exert some extrinsic social influence (e.g. Kruglanski and Mayseless, 1990; Fiske and Taylor, 1991; Nye and Brower, 1996). In a social constructionist approach, however, the Ego-solo approach to social cognition does not really make sense (at least not as long as we define cognition as meaning, and not as some function of the brain), for the cognizing Ego is basically an abstraction of the coordinated interaction with Alters. Therefore, the study of the so called 'social context' of social cognition, as something that is 'added to' or which 'modifies' the contextless social cognition, does not make sense either, for this social context is present always, and even most so when it seems to be absent, for in that case, we are dealing with strongly sedimented Ego/Alter-coordinations, which reappear as if they were individual discoveries of an a-priori-meaning in nature (see our remarks on this in paragraph I.2). For that reason, or thus to emphasize the 'intrinsic' character of social context, Monteil prefers to speak of 'contextualization' or 'explicitation', rather than of social context tout court (e.g. Monteil, 1993). A very nice illustration of this more 'explicitating' or 'contextualizing' approach to social context in social cognition (although not explicitely grounded in a social constructionist theory of human understanding), is the work of Leyens and his colleagues on the so called 'social judgeability', or an illustration of the idea that subjects, in experiments on person perception, actually 'negotiate' the meaning of persons with the Alter-experimenter, for instance to infer individual characteristics from categorical information, in case the experimenter suggests that this is feasible (e.g. Leyens, Yzerbyt and Schadron, 1994). However, once we realize that the results of experiments in social cognition (and actually in cognition as a whole) are products of the coordinated interaction between Ego-subjects and Alter-experimenters, we should also realize that the common procedure in experiments to eliminate subjects who misunderstood the instructions, or who refused to comply, or who were suspicious, etc., are not simply methodological safeguards against the impure measurement of the so called universal cognitions of the Ego-solo, but are more like orthodox excommunications of subjects whose internalized Ego/Alter-coordinations could not be locally coordinated with those of the experimenter (and whose own internalized coordinations, generally with colleagues, are taken as the hypothetical voices of the alledged Ego-solo). Needless to say that also crosscultural research is very liable to this problem.

5. The difference between a primary and a secondary definition of social construction

The social construction, to which we referred above, was obviously meant in the primary sense of the word, or in the sense in which 'meaning' and 'coordinated interaction' are defined as one and the same (e.g. there is no meaning beyond 'that what is meant' in the coordinated interaction between subjects). However, and as explained already, this primary definition of social construction does not exclude at all, but on the contrary explicitely includes the possibility that subjects internalize their social coordinations, and reproduce them later 'as if' they were individual discoveries of the inherent or a-priori-meaning of nature. But (and here we touch a crucial problem in social psychology, and actually in psychology as a whole), when we take these quasi-individual cognitions as the starting point of our research, and forget to reduce them to their socio-genetic and/or socio-historical antecedents, we easely fall in a model of individual and realistic cognition, and from there also in a secondary definition of social construction.

The route from the individual realism to the secondary definition of social construction is as follows. When we define cognition as the product of the individual processing of a-priori-messages in nature, then we obviously also define truth as the correct, and falsehood as the incorrect individual processing of these messages. The latter, or falsehood, is then automatically attributed to some failure, either in nature itself (e.g. weak or distorted

information), or in the subject (e.g. fatigue, emotions, biases, mental handicaps, etc.). However, this entirely individual and realistic conception of truth and falsehood has some necessary implications at the social level. Indeed, truth, following this logic, always leads to consensus, whereas falsehood may lead to consensus (e.g. when all subjects make the same individual mistake at the same time), but it may also, and most often, lead to dissensus. Inversely, dissensus, in the logic of the individual realism, is an absolute proof of individual falsehood (for at least some of the dissenting subjects must be wrong), and consensus becomes a necessary (although not sufficient) criterion of truth. Not surprisingly then, given this logic, dissenting individuals who try to reach consensus, are seen as individuals who realize that they were wrong, and who try to compensate their individual failure by means of the necessary social criterion of truth, namely consensus. This definition of social construction, in which communication and consensus is defined as the social compensation for the lack of individual correctness, this is what we understand by the secondary definition of social construction.

With only one additional assumption, this secondary definition of social construction can easely be generalized to a point where it virtually looks like a primary definition, although it is not, but on the contrary, becomes the total denial of it. Indeed, we only have to assume (as for instance Herbert Simon did, with his notion of 'bounded rationality', e.g. Simon, 1957), that human subjects are 'all' to some extent unable to process all natural messages completely and correctly, and immediately something that is only a secondary compensation for the lack of individual correctness, becomes the only basis for thruth. This 'generalized' secondary definition of social construction, in which the emphasis on language and communication is obviously very strong (and suddenly we see how a 'practical' emphasis on language and communication is by no means a proof of a primary social epistemology, it can even be the total denial of it), is like the ancient theological model of 'fallen angles', or creatures who must constantly quarrel and resolve contradictions, because they lost their original capacity to see all truth at once. Real angles, by contrast, are doomed to peace, for with their perfect individual minds, all exact replica of the ideal mind, they can only see truth and, thus, the same.

6. The secondary definition of social construction in the classic experimental (social) psychology

It is not surprising, in retrospect, that the classic experimental or cognitive psychology has fallen in this 'fallen angle'-model of cognition, because this classic psychology, as we all know, emerged about halfway the previous century from experimental neurophysiology, and was actually an attempt to render the philosophical analysis of human consciousness 'more scientific', by linking it to the neurophysiological study of the human cognitive apparatus (e.g the senses, nerves and brain), and such an apparatus, by definition, belongs to individual subjects, with general, differential, and developmental characteristics.

Also the classic so called 'experimental social' psychology, which emerged from general experimental psychology early this century, used this individual or 'brain-based' model of human cognition, and translated it in the secondary definition of social construction to which we referred above. Concretely, what happened was that some researchers got irritated by the 'influence' of social factors in their research, and started to manipulate these factors independently, to systematize their effect. However, instead of changing their epistemology from individual into social, they kept it individual, and 'socialized' their findings by describing them in the social terms which they knew already from their own life in society, or from their academic study of society, say sociology.

For instance, when Moede published his famous studies on 'coaction' (e.g. the performance of individual psychological tasks in each others presence), he called his publication

"Experimentelle Massenpsychologie" (Moede, 1920), and it is clear that he borrowed that term, mass, from the (mainly French) sociology of his days, in which it was often used to refer to the anomic (e.g. unordered) social substance from which ordered (e.g. nomic) social institutions are made, and to which they may return when not taken care of well enough (like the entropic loss of order in thermodynamic systems). Floyd Allport, on the other hand, who did more or less the same research as Moede, called his publication "The influence of the group on association and thought" (Allport, 1920), or in other words, he simply changed one popular societal term, mass, into another one, group. Fifteen years later, when Muzafer Sherif added communication to coaction (e.g. he let the coacting subjects tell aloud to each other what they perceived), he called his publication at first "The study of some social factors in perception" (Sherif, 1935), but a year later, he called it "The psychology of social norms" (Sherif, 1936), or again the translation of some social factors in psychological research in the terms of society (after which, of course, these same terms were further investigated by means of the same research-paradigms to which they were first applied). The same happened with the so called experiments in conformity, imitation, obedience, leadership, deviance, minority, cooperation, competition, aggression, altruism, etc. (for more details on this evolution in experimental social psychology, see e.g. Rijsman, 1973, 1990; Rijsman and Visser, 1990).

7. The theatrical function of experiments in social psychology

It is very clear, when we look back on this development, that experiments in social psychology are not like experiments in physics, or not the special arrangements which allow us to look further or deeper in the universe, and see things which existed all the time, but where invisible for the naked eye, like the telescopic discovery of new stars, or the microscopic discovery of new particles, etc. (but of which the physical meaning, just like all meaning, is obviously a product of the coordinated interaction between subjects, only in this case between the physicists who coordinate their observational activities). Experiments in social psychology never look further or deeper in the universe than ever before (if there is one branch in the social sciences which somehow ressembles this model of 'discovery', then it is cultural anthropology), but instead they reproduce parts of society in the operational language of psychological experiments, or in other words 'theatrical miniaturizations of society, with psychological tasks as roles, and subjects as the actors' (e.g. Rijsman, 1996a). But of course (and this is why we get the 'illusion' of an objective science in the sense of experimental physics), these theatrical miniaturizations also lead to 'new social facts' (in the sense of theatrical pieces which nobody has ever seen before), and they also 'objectify' our knowledge of social life (in the sense of 'putting it on stage, so that we can look at it from a distance'), and last but not least, they also lead to a disciplinary language of expertise (for in order to be an expert in experimental social psychology, one needs, just like an expert of the common theatre, to know exactly who wrote the piece, for what purpose, with what kind of narrative material, etc.). But any claim that these theatrical miniaturizations are like the experimental discovery of a new star or a new particle, would be utterly naive, and would even destroy our appreciation for the enormous 'demonstrative power' of our experiments. Indeed, once we put our social understanding on stage in such a demonstrative way, we can clearly 'explain' to other people 'what we mean' with 'conformity' or with 'blind obedience', etc., and the fact that we never got any patent for our research, but only copy-right, is no longer a loss, but actually a gain, for theatrical demonstration 'is' the technology of our discipline (e.g. Rijsman, 1996a, 2000). But, of course, when we reinject these theatrical demonstrations in our discourse on social life, for instance by teaching them, or by using them in consulting and therapy, etc., we obviously modify the system of meaning from which we first borrowed them, and in that sense, experimental social psychology is truely historical (e.g. Gergen, 1973, 1994).

8. Fundamental social psychology

However, besides the classic experimental social psychology, with its strong secondary definition of social construction, there are also other branches of social psychology which do, in fact, use a primary definition of social construction. Not surprisingly, however, given what we said already on this epistemology, these other 'more social' branches of social psychology all use to some extent a socio-genetic and/or socio-historical approach to human understanding.

A well known example of such a socio-genetic/historical approach to human understanding is the work of Vygotsky on language and thought as being the expression of the 'internalized' (or of the 'privatized', as Harre, 1989, would call this) social practice (Vygotsky, 1964/32). Another, more recent example of a similar kind of thinking, is the socio-genetic study of the cognitive development of children, often called 'socio-genetic constructivism' (e.g. Doise, 1989). For instance, in this kind of work, the development of children toward 'conservation' (e.g. toward the ability to understand reality as invariant under various forms of appearance) is not, like Piaget first defined it, seen as an internalization of the 'individual' operations of the child on objects, but as an internalization of the 'cooperations' between children, during their collective operations on objects (e.g. Doise, Mugny, Perret-Clermont and Nicolet, o.c.). Of course, Piaget himself did also look at social factors in the cognitive development of children, but he did so very much like one always does when starting from an individual conception of human understanding (even when looking at the developmental aspects of it), namely as some kind of 'parallel' development at the social level of a development at the individual level, such as higher morale, more sophisticated communication, etc. (e.g. Doise and Rijsman, 1981; Rijsman, 1996b).

But the most elaborated, and probably also best known (but often misunderstood) example of a primary definition of social construction these days, is what is generally called the 'social constructionism' tout court, without even adding the word 'primary' to it (e.g. Gergen, 1985, 1994, etc.). However, contrary to the socio-genetic constructivism, which emphasizes more the cognitive development of children and often uses experiments to illustrate its ideas, this primary social constructionism emphasizes more the mental life of adults, and often uses the discoursive construction of reality as illustration of its ideas (for a direct comparison between both currents, see e.g. Rijsman and Stroebe, 1989). Not surprisingly, therefore, this social constructionist form of social psychology is often blamed by classic experimentalists to be the study of the quasi-objective, but subjectively valid construction of reality, in case the individual construction fails (see our analysis of the secondary social constructionism in the fourth paragraph). Thus, although classic experimental social psychologists do not deny the existence of such constructions (on the contrary, it is a major topic of research in group-dynamics), they always confront them with the ideal of individual and objective constructions. A form of critique then, which we may expect from these corners could sound as follows "yes of course, people often construct the meaning of reality socially, but they cannot construct whatever they want, like not edible stones, for those who try will die". However, such a form of critique, which obviously looks very reasonable at first sight, is completely besides the mark of the primary social constructionism, and actually represents a strawman-version of it in the name of the secondary social constructionism on which it rests. Indeed, the primary social constructionism does not say at all that people can construct whatever meaning they want, it only says that any meaning they construct is an expression of the coordinated interaction 'between' subjects, instead of the individual discovery of an a-priori-meaning in nature (as if any subject could ever discover that meaning independently, to see if we, with our psychological representations of that meaning, are right or wrong). Thus, when the meaning

of a so called ‘real’ stone implies that we cannot eat them, then this simply is an expression of our coordinated interactions in which we do not eat them, and which, as such, we have invested in our concept of a real stone. But, of course, once we dispose of words to coordinate our interactions, we can also create new meaning ‘with words’, and so we can create edible stones, or flying carpets in fairy tales and science fiction, or in whatever discourse. The truth-value of these new concepts does not reside in the reproduction of the original coordinations of activity, but in the reproduction of the coordinations for which they were meant, namely the coordination of our imagination during a story. In a sense, a subject that breaks the coordination of our imagination during a story, for instance by refusing to imagine edible stones, breaks as much the meaning of reality at that moment as another subject that breaks the coordination of not eating the so called real stones during a walk in the mountains. Meaning, in all cases, is an expression of the coordinated activities between subjects, and the so called truth is nothing but the succesful reproduction of that coordination.

9. The confusion between intersubjectivity and interobjectivity in Festinger’s classic theory of social comparison

The secondary definition of social construction, which is so pervasive in the classic experimental social psychology, has been used explicitely as a theory of communication by one of the most prominent representatives of that discipline, namely Leon Festinger. Indeed, in his theory of informal social communication, Festinger (1950) stated explicitely that people who do not know the world objectively, will compare their ‘opinions of reality’ with each other, and will use consensus as a quasi-objective, but a subjectively valid definition of what is real. Some years later, Festinger (1954) tried to also apply this theory to the way in which people construct quasi-objective, but subjectively valid evaluations of their own Self, and specifically of their own abilities, but in this attempt, generally known as his “Theory of Social Comparison Processes”, Festinger really mixed up the intersubjective with the interobjective dimension of the comparison (and even ignored more or less the intermediate dimension), leaving us with a number of challenging propositions on the social comparison of abilities, but certainly not with a coherent theory. Let us buttress this contention in somewhat more detail.

It already begins with what is probably Festinger’s most central proposition, namely the one in which we claims that people who do not known their own ability objectivitly - and by that, Festinger meant people who do not have an objective measure of their performance - will compare their own ability with the ability of other people (thus, an interobjective form of comparison!), to so arrive at a quasi-objective, but subjectively valid evaluation of what they can. This is obviously an inconsistent proposition, for apart from the fact that one can, in principle, never compare something unknown (in this case the unknown own ability), it is clear that Festinger, in order to be consistent with his own point of departure (being the use of consensus to compensate for the lack of individual objective knowledge), should have said that people in that case will compare their ‘own opinion on their own ability’ with the opinion of other subjects, to so arrive at a quasi-objective, but subjectively valid opinion of what they can (thus, an intersubjective form of social comparison, instead of an interobjective one!). However, because Festinger equated the lack of objective knowledge of abilities with the lack of objective measures of performance, he should have said that people will first construct consensus on their performanc (e.g. the use of some jury, etc.), and then consensus again for the attribution of this (estimated) performance to their ability. But since the latter, namely the attribution of performance to ability, is always non-objective (because it is an inference and, thus, by definition not a measure), Festinger himself - even on the basis of his own illogical argument ‘when no objective measure, then interobjective comparison of abilities’ - should have concluded that people will ‘always’ compare their

abilities interobjectively, with or without objective measures (because the attribution is equally inferential in both cases). And in a sense that would, empirically speaking, have been a better conclusion, for if something is really visible in this world (even beyond experiments), then it certainly is that people do not only compete 'socially' (that is, for status instead of for a conflict of material interest) when the performance is 'not measured', as Festinger concluded himself, but also, and sometimes even more when it is measured, like in certain branches of sports, etc. (whereas, if we take Festinger own conclusion literally, people would not even be interested in social comparison in that case, or a clear contradiction with everyday experience).

The confusion between intersubjectivity and interobjectivity, in Festinger's theory, goes on in the discussion of the 'dynamics' of the comparison. According to Festinger, the social comparison of abilities, just like the social comparison of opinions, is characterized by a 'pressure toward uniformity'. This is, thus Festinger, because more similar abilities are easier to evaluate accurately than more different ones, and accuracy is what people want. Again, this is a very inconsistent proposition, for apart from the question why more similar objects are easier to evaluate correctly (many would say just the opposite), one really wonders what 'more similar' can mean for objects which one does not know (for let us not forget that the entire reason for which people engage in the social comparison of their abilities, according to Festinger, is because they do not really know them!). However, according to Festinger, the pressure toward uniformity is not the only pressure in the case of abilities, but there is also - at least in Western Cultures! - a pressure upward, or a pressure to always do better and better, so that people - or at least Western people! - try to do 'somewhat better' than the Other, or a compromise between 'equal' and 'better'. Now, this conclusion of Festinger, it must be admitted, sounds empirically quite plausible, but our point now is not to show that Festinger made empirically unreasonable propositions, but that he based them on the wrong argument. Indeed, we do not need the strange connection with consensus at all, nor the deus ex machina of a Western Culture, to reach the conclusion that people want to make Self somewhat better than the Other, but we can simply and directly derive it from the interobjective Self/Other-comparison on X, as shown in figure 1. As explained already, the very definition of Self on X (whereby X can obviously also be an ability) simply implies that Self is mentally integrated with the Other (which obviously explains the so called pressure toward unformity, but then in the interobjective sense of similarity, and not in the intersubjective sense of consensus), and that Self is also positively discriminated from the Other (which obviously explains the so called pressure upward, or toward 'superiority' on X). Thus, the pressure toward 'somewhat better' on X is not a strange curiosum of a Western culture, but simply and directly an expression of the universal meaning of Self, which means 'the only socius which belongs to Ego'. This formal meaning must hold for whatever culture, at least as long as we stick to the formal meaning of what we say (and this is obviously a primitive rule for any theory). But, of course, what is invariant in a formal sense, is not necessarily invariant in a concrete sense. On the very contrary, it is precisely because we can reduce the immense variation of concrete Alters, concrete perceptions and attributions, concrete productions of social cues, concrete Others, and concrete dimensions of comparison, to the invariance of a formal system, that we are able to see the deeper similarity between all these variations (just like children are able to reduce fluids in different glasses to the invariance of a volume, but only after they have learned the concept of conservation). Without the formal invariance as interpretative system, we would live in an incomprehensible chaos of different events, some of which seem to even contradict each other, whereas in fact they are only different expressions of the same.

In the next paragraph, we will further elaborate the interobjective comparison of Self and Other on X in more algoritmic terms, but before we do this, we like to come back for a moment to the social comparison of opinions, from which Festinger tried to derive his theory

on the social comparison of abilities. The reason for doing this is that we think that Festinger also mixed up intersubjectivity with interobjectivity in the case of opinions. In order to make this clear, let us reflect for a moment on the following contrived sentence "subject A and B agree that A's opinion on politics is better than B's, so that A is probably a better politician than B". Now, where, in this sentence, is there really a social comparison of opinions, so that we can apply Festinger's theory to it? Is it in the agreement between A and B as subjects, or in the social comparison of their opinions on politics, or in the social comparison of their ability as politicians? In any case, there is a social comparison of opinions in the second part of the sentence, for that is literally 'a social comparison of opinions'. But when this is the case (and it obviously is the case), then this social comparison of opinions is not intersubjective, but interobjective, for it is a comparison of the 'social cues' by virtue of which Self and Other can be compared with each other on X (whereby X, in this case, is the ability as politician). Therefore, this social comparison of opinions will not only be characterized by a pressure toward uniformity (in the sense of a pressure toward 'similarity'), but also by a pressure 'upward' (in the sense of a pressure toward 'an indication of superiority on X'), so that the subject whose Self is involved, will want to have a 'somewhat better' opinion that the Other (as in fact we observed in our research on this matter, e.g. Rijsman, 1970, 1974, and as was also observed by Codol, 1975, in his work on the so called P.I.P.-effect, or the tendency of people to think of themselves as the Primus Inter Pares with regard to opinions). The only part of the sentence above, that we could define as really 'intersubjective', is the agreement between A and B 'on' the social comparison of their opinions, and it is obvious that A and B cannot make this comparison interobjective without engaging in another discussion (with or without agreement), in which they discuss their previous agreement. This, in a sense, is the argument which Godel used, when he made clear that the construction of human understanding can never completely and consistently be included in the product of that construction (but, of course, Godel did that in a more sophisticated way, namely by transforming the metamathematical expressions of the calculus in the terms of the calculus itself). And this is also the argument which we ourselves used, already in the introduction of this paper, to make an axiomatic distinction between intersubjectivity (e.g. the Ego/Alter-coordination) and interobjectivity (e.g. the Self/Other-comparison), and connect them to each other as equally necessary parts for the analysis of social comparison (with, of course, the intermediate part as an expression of both).

10. An algoritmic elaboration of the interobjective comparison between Self and Other on X

The general idea that the interobjective social comparison formally consists of an integration and a positive differentiation of Self and Other on X, can easely be elaborated in the form of an algoritm that allows us to state with formal precision how Ego needs to change any given relative position of Self on X in order to fulfill both requirements (e.g. Rijsman, 1979, 1980, 1983, 1985, etc., or for less algebraic, but more geometrical descriptions of the same idea, Rijsman, 1974, 1975, Rijsman and Poppe, 1977, etc.). We will briefly describe the essence of that algoritm in this paragraph, and then further elaborate it in the course of our empirical illustrations.

We start with the definition of a scale of psychological differences, d, between Self and Other on X. The zero-point on this scale, or d=0, expresses the point of equality, or zero difference between Self and Other on X, and the units, d=-1 and d=+1, express the differences at which point the possibility to still integrate Self and Other in the same category on X vanishes (whereby positive values obviously express 'preferred' differences, or those which we generally call 'superior' on X, and negative values the opposite, or those which we generally call 'inferior' on X). By definition then, there is a negative relation between the absolute value of d and 'comparability' (or possibility to integrate Self and

Other in the same category on X), namely as follows: c=1-|d|, which means that c is maximal, or c=1, at the point of equality, or when d=0, and minimal, or c=0, when d reaches the unit values, or when d=±1.

The two operations of the interobjective comparison between Self and Other on X, namely integration, i, and positive differentiation, p, can be expressed in terms of d, whereby i is by definition equivalent to i=-d (or the reduction of any d to the point of equality, or to d=0) and the latter by definition equivalent to p=-d+1 (or the reduction of any d to the point of maximum superiority within the zone of comparability, or to d=+1). The sum of both operations at the same time is s=i+p, or after substitution by d, s=-2d+1. However, this abstract sum only operates to the extent that Self and Other are really compared on X, and we know that this comparison decreases with the absolute value of d, according to c=1-|d|. Thus, in order to obtain the real operation of s, we must weight s with the corresponding c, or y=s.c, which after substitution by d changes in two subformulas, namely (1) $y=-2d^2-d+1$ (this is for the zone of 'inferiority' on X, or for the zone of d between -1 and 0) and (2) $y=2d^2-3d+1$(this is for the zone of 'superiority' on X, or for the zone of d between 0 and +1). The function of both formulas together is shown in figure 2.

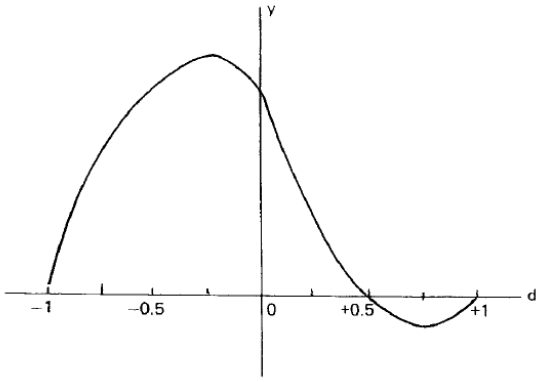

Figure 2: Pressures (y) to change the relative position of Self toward the Other, as a function of relative position of Self (d).

What we see in figure 2 is the pressure on Ego to change any given difference between Self and Other on X upwardly (positive y) or downwardly (negative y), whereby the absolute length of y is an index of the 'intensity' of that pressure. Thus, when the inferiority of Self on X is very large (e.g. when d is near -1), then the pressure to change is very small (e.g. the y-values is almost 0), but when Self becomes 'less inferior' (e.g. when d becomes less negative), then the pressure to 'improve' the relative position increases (e.g. the y-values become more positive), to reach a maximum at 'slightly inferior' (e.g. at d=-0.25), but still being very high, namely exactly +1, at the point of equality. However, as soon as Self becomes 'superior' (e.g. when the values of d become positive), the pressure to 'improve' the relative position of Self rapidly decreases, to become zero at the point of 'somewhat better' (e.g. at d=+0.50), and to become even negative (e.g. a pressure to 'decrease' the relative position of Self) when the superiority is 'too large' (e.g. between d=+0.50 and d=+1), but to disappear again completely at the point of maximum superiority (e.g. at the point of d=+1).

The dynamics of figure 2 can obviously also be applied to a 'series' of Others, which are rankordered along X. For instance, when we rankorder them at regular intervals which are equivalent to half a unit of d in Ego's own psychological scale of difference, and when we

assume that Ego only compares with one Other at the same time, namely with the one which is closest to Self at that moment, then we get a 'wave' of motivation as shown in figure 3.

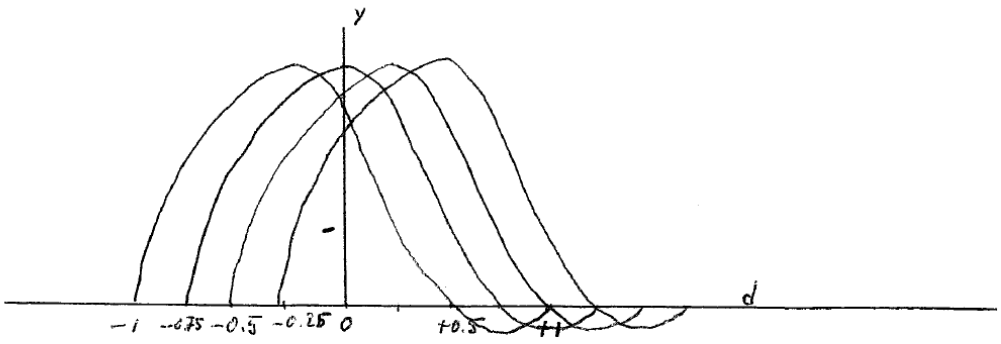

Figure 3: Sequence of comparison-functions with different comparison-Others

What we see in figure 3 is that Ego, after having emulated the first Other to the point of 'slightly better' (e.g. to the point of d=+0.25), stops the comparison with this Other, and starts to compare with the next Other, relative to which Self is then d=-0.25 or less. As a result, the y-values go up again, until the same process repeats itself with the next Other, etc., until the last Other is emulated, and the process stabilizes at d=+0.50 relative to this Other. Of course, when the intervals between the Others along X are made smaller, the 'waves' of motivation become shorter, to turn into a virtually straight line at y=+1, when the intervals are made very small (e.g. Rijsman, 1985). With some imagination, we could call this line of upward motivation at +1 the "Constant of Self-realization", C, or the constant motivation of Ego to improve Self on X, because of the constant comparison between Self and real or imaginary Others on this dimension.

The dynamics in figure 3 (or in any other comparable figure, with a series of Others along X) obviously create the impression that Ego wants to 'maximize' the superiority of Self toward inferior Others, but that is an illusion, because what Ego really does is 'shift' the comparison from the inferior to the superior Other, and tries to emulate this superior Other. This 'illusion' was probably the reason why Mulder (1972 in his theory on the social comparison of power, stated that subjects who feel 'superior' in power, tend to maximize their 'superiority'. In a concrete sense, this is probably what they do, but theoretically, they probably shift their comparison to other more powerful Others, so that their tendency to emulate these more powerful Others leads to an apparent maximization of superiority toward the more inferior ones (e.g. Rijsman and Poppe, 1977). Mulder stated also that the tendency to reduce inferiority increases with a decreasing inferiority, and this statement is obviously very much in line with the increasing value of y in the negative zone of figure 2.

Another paradox which follows from figure 2, besides the apparent maximization of superiority in figure 3, is the fact that although the dynamic equilibrium, or the 'purpose' if you wish, of interobjective social comparison is 'somewhat better', the total motivation to change, or the 'frustration' if you wish, is much larger for 'inferiority' (e.g. for the negative zone of d) than for 'superiority' (e.g. than for the positive zone of d). This is true, not only in terms of the integrated space under y, but also in terms of the peak value of y (see figure 2). This is probably the reason why Messick and Thorngate (1967), in their research on social motivation, found more 'inferiority avoiding' choices than 'superiority seeking' ones (see also Rijsman and Poppe, 1977), and it may also be the reason why 'losses' (which we can

conceive as scores below the standard of comparison) generally 'weight' more than 'gains' (which we can conceive as scores above the standard of comparison), or the well known asymmetry between losses and gains, which is at the basis of Kahneman and Tversky's prospect'-theory (1979)

However, the probably most intriguing paradox which we can derive from figure 2, is that two subjects, say A and B, who compare their Self symmetrically with each other on the same X-dimension, and who possess the same power of change (which means that their relative changes are fully determined by their relative motivations), actually shift toward complete equality, at which point they both move forward side by side with a motivational intensity of y=+1. This creates an illusion of wanting to make progress in equality, whereas in fact they only want to emulate each other (e.g. Rijsman, 1985). We will explicitely come back on this paradox, later in this paper.

II. ILLUSTRATION

1. Some preliminary remarks on illustration

The illustration of a social constructionist model of social comparison is obviously not the same as the demonstration of the validity of a physical model of the universe by the discovery of a new particle or a new planet, but it is an interpretative endeavor in which we interpret human behavior as the expression of human sense-giving, and in which we try to correlate this behavior with the general model of human sense-giving as described in the previous paragraphs. This is analogous to the illustration of a model of mechanics, by interpreting motions as expressions mechanical behavior (not of psychological sense-giving), and by correlating these motions to a general model of mechanics as developed in physics. But, of course, a general model of mechanics is a matter of geometry, or of any other formal description of time and space, whereas a general model of sense-giving is a matter of language, or of the sense-giving coordination of activity between subjects. Therefore, motions are 'measured', which means correlated with units on the dimensions of time and space, whereas sense-giving is 'understood', which means correlated with our language. Of course, it is also possible to recode language in numbers (just like we can recode measurements in words, if we wish), but in order to 'understand' our recoding, we have to go back to the language from which we started.

The linguistic basis of the social constructionist model of social comparison is very clear. Indeed, what we did was nothing else but analyse the concept of meaning, and specifically of the meaning of Self and Other, and elaborate this formally. Our conclusion was that meaning, by definition, must be a product of the coordinated interaction 'between' subjects, and that the meaning of Self and Other, by definition, must be a coordinated interaction between the Ego and the Alters, in which the Ego's ownership of his own existence, or Self, is positively discriminated from Ego's non ownership of the comparable forms of existence, or Others. This is what led to the model as shown in figure 1, and as further elaborated in figure 2 and 3. If we had been able to start with a different conception of meaning and Self, then we would obviously have been able to develop a different model. For instance, if we had been able to define meaning as a purely individualistic phenomenon (but then, the question would obviously be how 'we' would ever 'understand' such an individual meaning), or if we had been able to define Self as a reality which is less owned by Ego than Other (but then, the question would obviously be if we would still call this Self a Self, or rather the Other), then a totally different model of social comparison could have been developed. But as far as our language goes (and this is the only instrument we have to communicate with the reader in this chapter), we cannot imagine meaning in a purely individualistic way, and we cannot imagine a Self which is less owned by Ego than Other.

However, the fact that a social constructionist model of social comparison refers to behavior which, in itself, is conceived as 'sense-giving', makes it 'self-reflexive', and this leads to the social construction of a special phenomenon that we generally call 'the unconscious'. Indeed, when we correlate the behavior of subjects to the dynamics of figure 2, and consider what we see as an illustration of the dynamics in that figure, it is very well possible that, when we ask the subjects themselves whether they agree or not, they totally disagree and choose a different explanation (it would be rather surprising, indeed, to hear a child or a naive subject explain his own behavior in the formal terms of figure 2). We, as colleagues, may then decide that these subjects are 'not aware' or 'unconscoius' of their own dynamics of behavior. In a sense, we are doing the same in that case as when we decide that objects are not aware, or cannot explain themselves, the general forces which underly their motions. So, the fact that the unconscious exists in social life, is not a surprise at all, for it is product of our own sense-giving (e.g. of the fact that we, as psychologists, explain human behavior in a way which is not matched by the self-explanation of those whose behavior we study). The more surprising fact then, in social life, is not that the unconscious exists, but that it can dissappear, or that children and other non-experts in the field can learn to explain their own behavior in a way which corresponds with ours. Thus, the best method to get rid of the unconscious is either to educate people (as we often do in psychotherapy and consulting, and obviously also in our teaching), or to accept the self-explanation of those whose behavior we study (but then, of course, we have to give up our position of the one who knows better). In this paper, we will not ask the subjects whether they agree or not, but we will correlate their behavior with the model and ask you, our colleagues, whether it is a good illustration of the model or not.

2. The parameters of change in the model

It is clear, when we look at figure 1, that there are at least six parameters of change by which the subject, or Ego, can construe a positive image of Self, namely 1. The Alter, 2. The perception of the social cues, 3. The social cues themselves, 4. The social attribution of the social cues to Self and Other, 5. The Other, and 6. The dimension of comparison, or X. All these parameters can change alone or in combination, which makes it very difficult to correlate only one parameter with the model, and take this parameter as the valid expression of the dynamics. For instance, imagine that we tell a subject in an experiment that his score on a test is inferior to that of some other subject in the same situation, and that we subsequently measure the subject's change in performance in order to correlate this with the theoretical dynamics in figure 2. This boils down to the use of parameter 3, or the change in the social cues themselves as expression of the social construction of social comparison. However, we are never sure that the subject will express all the dynamics exclusively through this parameter, for, in principle, the subject can also reject the experimenter as valid Alter (for instance by leaving the experiment, or by daydreaming of other, more positive experimenters, etc.), or can doubt the correctness of the measurement, or can bias the attribution of the score to ability, or can reject the other subject as Other, or can doubt the importance of the ability, etc., etc.. Thus, in order to make 'changes in performance' a good illustration of the dynamics, we must strongly negotiate the meaning of the situation with the subjects, and 'close' so to speak all the other escape-routes for adaptation. But even in that case, we still are never sure that change in performance is the only parameter of change, for in principle, it remains possible that the subject apparently accepts the meaning of the situation, but internally rejects what we say. This would not necessarily mean that the dynamics of the social construction of social comparison are not at work, it would mean that we cannot detect them with the expressive behavior, or parameter, which we have chosen in our research. And needless to say that all the variations of adaptation which we just described with regard to an experiment, can also be applied to the continous adaptation of the Ego to the variable contacts with Alters and Others in the course of life. For it is obvious

that the social construction of social comparison in everyday life is a continuous stream of concrete Alters, concrete perceptions-, productions-, and social attributions of social cues, concrete Others, and concrete dimensions of comparison, some of which get stabilized as cultural and personal definitions of Self, and some of which are very situational, and can vary from moment to moment.

3. Changes in the subject's performance after manipulated feedback on the difference between the subject's own performance and that of another subject in the same situation

Our first illustration is one in which we look at the subject's changes in performance after manipulated feedback on the difference between his own performance and that of another subject in the same situation. Concretely, we first measured the subject's speed of lifting a finger from a button at the sight of a flash (e.g. simple reaction time), and then told the subject that his own speed was inferior (or depending on the condition, equal or superior) to that of another subject in an adjacent cubicle. We then measured the subject's speed again, and calculated the change from pre- to posttest. Given the usual authority of the experimenter in an experimental situation, we assumed that the subject would accept this feedback as a social construction of the difference between Self and Other in ability, and that the three conditions, namely inferior, equal, and superior, would lead to a subjective difference of respectively about -0.50, about 0, and about +0.50 on the d-scale. In terms of motivation, or y-value, this means that the motivation to change should be high, namely +1, in the inferior and equal condition, but low, namely 0, in the superior condition. Now, when we take the change in performance as parameter of change (but as said in the previous paragraph, there is always the possibility that the subject uses other 'escape-routes' of change, such as the rejection of the experimenter, of the meaning of the score, etc.), this implies that the change in speed from pre- to posttest should be high (in the positive direction) in the inferior and equal condition, and low in the superior condition, and that is what we found, namely an average change of about 55 miliseconds in both the inferior and equal condition, and an average change of about 10 miliseconds, or significantly less, in the superior condition.

In a second experiment, we changed the task from simple reaction time, or speed, to complex learning. Concretely, we first counted the number of trials a subject needed to learn a sequence of ten binary choices by heart (with three consecutive trials without any error as criterion of 'fully learned'), and then told the subject that his own score was inferior (or depending on the condition, equal, or superior) to that of another subject in the same laboratory. We then measured the number of trials on a second set of ten binary choices, and calculated the change from pre- to posttest. Contrary to what we expected for speed, we now expected that the change would be relatively 'low' in the inferior and equal condition, and relatively 'high' in the superior condition. The reason why we expected this reversal of pattern was that learning (or more generally, any task in which the probability of the incorrect response is higher than the probability of the correct response) is 'negatively' related to motivation, instead of, like with simple reaction time, positively (e.g. Zajonc, 1965). And, indeed, this is what we found, namely subjects in the inferior and equal condition improved less in learning than those in the superior condition. However, in order to ascertain that this reversal of pattern was not a symptom of different motivation, but of a different relation between motivation and performance, we also calculated a second index of change, namely of the speed with which the subject performed the last three trials in the pre-test and the last three trials in the post-test (or in other words, when the probability of the correct response was higher than the probability of the incorrect one), and with this second index of change, the pattern was again like in the first experiment, namely higher change in the inferior and equal condition than in the superior condition.

In a third experiment, finally, we did not use speed or learning as task, but 'the expression of opinions'. Concretely, we first counted the subject's quantity of different descriptions of an inkblot (e.g. a Rorshach-picture), and then told the subject that his score was inferior (or depending on the condition, equal, or superior) to that of another subject elsewhere in the laboratory. We then counted the subject's quantity for a second inkblot, and calculated the change from pre- to posttest. Just like with speed, we expected that the relation between motivation and quantity of different descriptions would be positive (simply because all descriptions were accepted as correct), so that the pattern of change would be like in the first experiment with speed, and indeed it was like that, namely a higher change in quantity (in the positive direction) in the inferior and equal condition than in the superior condition. This third experiment did not only illustrate the dynamics of figure 2, but it also illustrated what we said at the end of our discussion of Festinger (see paragraph 9), namely that when opinions serve as social cues of Self and Other, we should not only find pressures toward uniformity, but also pressures upward, leading to a pressure to 'perform' somewhat better in the production of opinions (or descriptions of reality) than the Other (for a detailed description of these experiments, see Rijsman, 1970 and 1974).

4. Changes in the subject's performance after manipulated feedback on the difference between the performance of the subject's own group (e.g. the ingroup) and that of the group of the other subject (e.g. the outgroup)

As soon as we started to do research in social comparison (and that was in the second half of the sixties), we realized very clearly that the comparison between Self and Other is not only constructed in terms of **personal** social cues, such as one's individual performance, but also in terms of **categorical** social cues, such as the social group or category to which one belongs. For instance, in a working paper for the various visitors to our laboratory, we literally wrote "Not only behavior or internal elements are important for the Self, but also external elements, belonging to what one calls the **Extended Self** - see Krech, Crutchfield and Balachey, 1962. The latter elements are what one has, with what one identifies, to what one belongs, etc. Particularly **groupmembership** strongly affects the Extended Self and Self - see Cartwright and Zander, 1968" (Rijsman, 1969, p. 4-5)[1] . This idea was also clearly elaborated in our dissertation, and illustrated as follows. We replicated the design of the previous experiment, but instead of comparing the personal performance of the subject with that of the other subject, we compared the performance of the subject's own group (ingroup) with the performance of the other subject's group (outgroup). Concretely, after having measured the subject's own speed (the same speed-task as in the individual experiment, namely lifting a finger from a button at the sight of a flash), we said that the subject was compared with another subject in an adjacent cubicle, but that the only information we could give was on groups. We told that the subject belonged to a particular 'group of subjects', say the ingroup, and the other subject to 'another group of subjects', say the outgroup, and that the performance of the ingroup was in general inferior (or depending on the condition, equal, or superior) to that of the outgroup. We then measured the subject's own speed again, and calculated the change from pre- to posttest.

Before presenting the results, we should mention that we actually had two options, namely one which Moscovici, in a private conversation, called the 'to deserve'-option, and another one which he called the 'to merit'-option. By the former, we mean the idea that the subject will use the categorical feedback 'as if' it were a personal one (e.g. as if the subject 'deserves' the status of his own group), which implies that the changes should be exactly like in the previous 'personal' experiment on speed, namely higher changes in the inferior and equal condition than in the superior condition. By the latter option, or the 'to merit'-option, we mean that the subject will not take the status of the ingroup as identical to that of Self, but will 'try to identify' with the status of the ingroup, but only in the case that the

ingroup has a positive status, namely in the 'superior' condition. This implies that the change in the subject's performance will only be high in the superior condition, but not in the inferior and equal condition (because assimilating the own performance to that of the ingroup, has no Self-supportive function in that case). We actually made bets on these two options with John Lanzetta who was then on sabbatical in our laboratory in Louvain, whereby he betted on the former option, and we on the latter one. The actual results supported the latter option, namely the subjects in the inferior and equal ingroup-condition changed very little, namely a couple of miliseconds, but those in the superior ingroup-condition improved significantly more, namely about 60 miliseconds (for a detailed description of this experiment, see also Rijsman 1970 and 1974). The contrast between the 'personal' and the 'categorical' form of social comparison is shown in figure 4a (see also Rijsman, 1983).

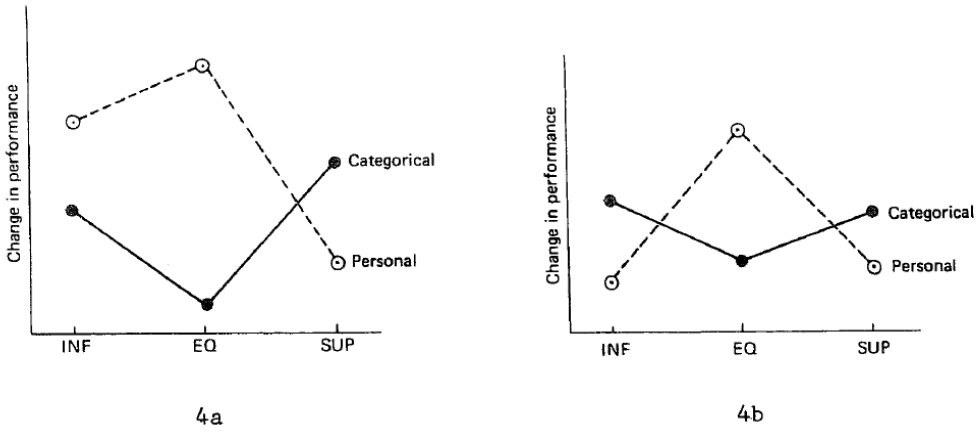

Figure 4: Changes in performance after different outcomes of personal (---) and categorical (——) social comparison, in relatively high (a) and relatively low (b) social pressure to compare.

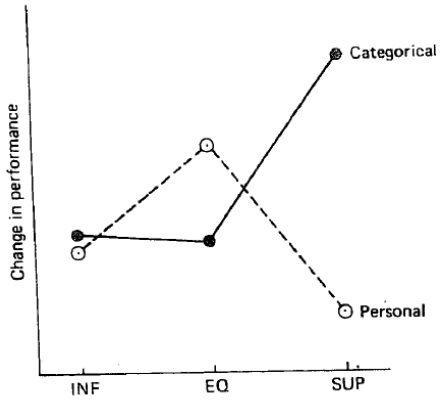

Figure 5: Changes in performance after different outcomes of personal (---) and categorical (——) social comparison of financial rewards

It is very obvious, when we look at these results, and at the analysis in terms of identifying Self with the status of the ingroup, that this illustration of social comparison is very similar to what Tajfel and Turner later called 'Social Identity'-Theory, or SIT (e.g. Tajfel and Turner, 1979). Indeed, just like in SIT, we assumed that under the appropriate conditions of 'social construction' (in this case the social construction provided by the experimenter) a

social group or category can serve as a 'social cue' of Self and Other, and the subject will use various tactics of change in order to arrive at a positive Self, one of which is to assimilate Self with the ingroup, in case the ingroup is superior to the outgroup. We could not refer to SIT in our dissertation, simply because it did not exist yet, but instead Tajfel himself (as he privately admitted in 1978, when we met him for the first time personally, and showed these results again in a meeting on SIT, see Rijsman, 1978b) knew our work in this domain very well (for he had visited Louvain in the context the foundation of the European Association for Experimental Social Psychology), but did not feel compelled to refer to it when he started to develop his own work in this domain with Turner. The only experiment on categorical social comparison to which which we could refer in our dissertation, was one of Rabbie on the overestimation of the performance of the ingroup, which he had presented to us in a seminar (e.g. Rijsman, 1970, p. 74).

It was also immediately clear to us, and to various other people, that the difference between personal and categorical social comparison could be used very well to deal with certain differences in performance of pupils at school. Indeed, pupils are literally 'classified' in classes of less good or better students, and besides the feedback on their own personal performance, this 'classification' can strongly influence their performance. It was actually on a basis of review of our work on social comparison in the educational supplement of The London Times, that, in 1975, we wrote a special paper on the implications of personal and categorical social comparison for education and performance (e.g. Rijsman, 1975, I and II). However, the most prolific research on personal and categorical social comparison in educational settings is undoubtedly the work of Monteil and Huguet in Clermont-Ferrand (e.g. Monteil, 1989; Monteil and Huguet, 1991, 1993, 1999), and it even got a 'political voice' during Monteil's term as acting minister of education in France.

5. Lowering the Alter-pressure of the experimenter in the social construction of personal and categorical social comparison

In the two experiments on speed, above, the Alter-pressure of the experimenter on the subject was very strong (e.g. the experimenter stood in front of the subject, and referred visibly to another subject in an adjacent cubicle), which means that the subject could hardly reject the comparison with the Other, even in case the performance was said to be very different. In terms of the theory, this means that even large differences in performance could not be translated in large d-values, say not lower than -0.50 in the case of inferiority, and not higher than +0.50 in the case of superiority. By implication, a lower Alter-pressure of the experimenter on the subject will probably allow the subject to infer larger d-values from large differences in performance, say close to -1 in the case of inferiority, and close to +1 in the case of superiority. But when this is the case, then the conditions of inferiority or superiority which, in the condition with high Alter-pressure, induce high motivation to change (e.g. the condition of inferiority in the personal comparison, and the condition of superiority in the categorical comparison), will probably induce low motivation to change, or no motivation at all. In order to illustrate that idea, we replicated the two speed-experiments (e.g. the personal and the categorical one) in a different setting, namely with the experimenter invisible for the subject (e.g. all the instructions were given by intercom) and with reference to another subject, not in an adjacent cubicle, but alledgedly 'somewhere else' in the laboratory. The results of these two replications are shown in figure 4b, and it is clear that they fully illustrated the idea, namely the subject in the inferior personal condition changed very little (which corresponds with the theoretically low y-value in the case of a d-value close to -1) and the subjects in superior categorical condition did not change very much either (which corresponds with the loss of a tendency to identify with a superior category in case the comparison with the other subject, or the subject which belongs to the outgroup, has almost stopped completely - because, let us not forget, that is precisely what is

meant by a d-value close to +1). Of course, the lower pressure of the experimenter has virtually no impact on the comparison with an 'equal' other subject, because there is, theoretically, no tendency to not compare with an equal other subject (for more details on these replications, see Rijsman, 1970, 1974, and also 1983).

6. Changing the modality of the Alter-feedback: from words to rewards

Very often, in real life, the Alter-feedback on the relative performance of a subject is not given in words, but in rewards. However, just like with words, rewards can be given either in personal terms (e.g. rewards which reflect how well a subject has performed in comparison with somebody else) or in categorical terms (e.g. rewards which reflect the comparative status of the category to which the subject belongs). Now, in order to illustrate the possible equivalence of the two forms of Alter-feedback, that is to say the word-feedback on the one hand, and the reward-feedback on the other hand, we replicated the first two speed-experiments (e.g. II.3 and II.4) with rewards, and expected more or less the same results. Concretely, we first measured the subject's speed (e.g. the speed of lifting a finger from a button at the sight of a flash) and then gave feedback on the subject's own reward and the reward of the other subject (note: the experimenter was visible and the other subject was alledgedly in the adjacent cubicle, or in other words the Alter-pressure was relatively strong). In the personal experiment, we told that the reward was based on the personal performance of both subjects, whereas in the categorical comparison, we told that it was based on the general performance of the ingroup and the outgroup. Just like before, the subject's own reward was either inferior, or equal, or superior. We then measured the subject's speed again, and calculated the change from pre- to posttest. The results of these 'reward'-versions of the personal and categorical comparison are shown in figure 5, and as one can see, they really corresponded very well, as a pattern, with the results of the 'word'-version of both experiments, namely relatively high change in the inferior and equal condition of the personal reward, and relatively high change in the superior condition of the categorical reward (see also Syroit and Rijsman, 1980, and Rijsman, 1983).

7. From the (in)consistency between various modalities of social comparison to the issue of social (in)justice

The illustration, in the previous paragraph, of the possibility to socially construct social comparison not only with words, but also with rewards, obviously also illustrates the possibility to use various modalities at the same time, and to end up with contradictions. This, in essence, is what Adams (1975) illustrated in his theory on inequitable rewards, or rewards which overrepresent or underrepresent the relative inputs. Adams expressed this in the form of an equation: O(Self)/O(Other)=I(Self)/I(Other), which literally means that the social comparison in terms of outcomes (e.g. rewards received from Alters) should be equal to the social comparison in terms of inputs. Adams also noted that both ratios should be somewhat larger than 1, which literally means that Self should be 'somewhat superior' to the Other on the dimension of comparison, or exactly what our social constructionist model of social comparison also says.

In order illustrate his theory of (in)equitable rewards, Adams often used experiments in which the subject could change his own performance as a means to render the two ratios equal and to make them somewhat larger than 1, and this type of research, as the reader immediately understands, is essentially equivalent to the paradigm of research which we used in II.3 and II4. However, Adams was not attentive to the difference between personal and categorical social comparison and, as we have seen above, this makes a whole difference with regard to the impact on performance. Indeed, we may reasonably expect that an overpayment in categorical terms, may evoke tendencies to 'merit' that kind of payment by working harder (see the positive effect on performance of superior categorization in the

previous experiments), whereas an overpayment in personal terms may do just the opposite (see the consistent negative effect on performance of superior personal feedback). This does not mean that the dynamics of social comparison are different in both cases, it only means that these dynamics manifest themselves via different routes (see our analysis of both cases in the previous paragraphs).

However, whatever the modality of social comparison, it can only be 'just' or 'right' with regard to the fundamental definition of Self, when it reflects Ego's necessary ownership of Self, which means a preference for Self above the Other. Basically, this is what Adams stated also when he noted that both ratios tend toward somewhat larger than 1. However, we may get the impression that this notion, namely of the basic preference for Self, is in contradiction with two other forms of social justice, namely of equality and need (e.g. Deutsch, 1975). Yet, at closer inspection, that is not the case at all, for what really happens in those cases, is that Self is socially constructed with different social cues. For instance, in the case of equality, we are dealing with a social construction of Self in terms of an ingroup, to which Self needs to be equal in order to discriminate Self positively from the Other, but obviously only in case the ingroup is socially constructed as superior to the outgroup (see our illustration in II.4 and II.5). In the case of need, the victims who, in Ego's eyes, deserve more help than Others, are simply those with whom Ego identifies, so that in fact, we get a vicarious Ego-ism or delegated Self-preference. In other words, also the justice of equality and need are variants of the basic tendency toward a social construction of a basic preference for Self (e.g. Rijsman, 1981, 1982, etc., or Syroit, 1984). And, of course, as we all know from our own experience, there can never be fundamental justice in a world of meaning in which we are not socially supported in the basic ownership of our own existence. Such a world, by definition, is psychologically suicidal, or eliminates the possibility to transform the necessary ownership of one's own existence in viable meaning of Self.

8. The (in)consistency between personal and categorical social comparison

Of course, there is not only the possibility of an (in)consistency between different modalities of social comparison, such as between words and rewards, but also of an (in)consistency between different types of social comparison, such as between personal and categorical comparison (see our analysis of both types above). The latter is what sociologists may call 'status-(in)congruency' (e.g. Cohen, Berger, and Zelditch, 1972), or what cognitive psychologists may call the (in)consistency between 'individuating' and 'categorical' information on persons (e.g. Kruglanski, 1989; Leyens, Yzerbyt, and Shadron, 1994, etc.). Now, in the course of our work on social comparison with changes in performance as parameter of change, we also looked at how the subject would react to various degrees of (in)consistency between these two types of social comparison, namely personal and categorical. Concretely, we first measured the subject's speed of lifting a finger from a button at the sight of a flash - 10 trials - and then told the subject 'two' things (instead of only 'one', as in the previous experiments), namely 1. The general performance of the subject's ingroup in comparison with the subject's outgroup (e.g. the group of the other subject in an adjacent cubicle) **and** 2. The subject's personal performance in comparison with the other subject's personal performance. We then measured the subject's speed again, and calculated the change from pre- to posttest.

We manipulated three levels of intergroup-comparison, namely inferior (the subject's ingroups was said to usually perform better than the outgroup in 1 of the 10 trials), equal (5 of the 10 trials), and superior (9 of the 10 trials), and we combined this with five levels of personal comparison, namely inferior (the subject was said to have personally performed better than the other subject in 1 of the 10 trials), somewhat inferior (3 of the 10 trials), equal (5 of the 10 trials), somewhat superior (7 of the 10 trials) and superior (9 of the 10 trials).

Thus, we had fifteen conditions, three levels of categorical-, and five levels of personal comparison, and three of these fifteen conditions were fully consistent (e.g. the personal and categorical comparison were the same) and the other twelve were inconsistent in various degrees of positive (e.g. personal better than categorical) or negative (e.g. personal worse than categorical) inconsistency.

We expected that in the case of equal categorization, the results of personal comparison would be exactly like before, namely relatively high change in the inferior and equal conditions, and relatively low change in the superior conditions (because, when the categories do not make any difference, only the personal comparisons make a difference). And, indeed, that is what we found. In the case of inferior categorization, however, we expected that the change would be low as long as the personal result was better than the categorical expectation, but that it would be high (in the positive direction, of course) when the personal result really confirmed the negative categorization, for in that case, the subject, in order to protect Self, needs to 'disconfirm' the total equivalence with the losing category. And, indeed, this is what we found too. And for the superior categorization, finally, we expected that the change would be low in case the personal outcome confirmed more or less the superior status of the ingroup, but would increase when it started to contradict that status, but would probably fall down again in case the personal result was 'completely' opposite to the superior status of the ingroup (e.g. a personal result of 1 on 10, whereas 9 on 10 should be expected on a basis of the ingroup). And, indeed, this is what we also found (for more details on the rationale of these expectations, and the nature of the results, see Rijsman, 1970, p. 61-72, or Rijsman, 1974, experiment 5).

In a later study, we combined only one level of categorization (e.g. superior) with three levels of personal comparison (e.g. inferior, equal, and superior), and we found very similar results, namely, low change in case the personal result was below the superior categorization, but low change in case it completely confirmed the superior categorization (e.g. Karel and Groenland, 1979, or Rijsman, 1983).

9. Implicit social constructions of social comparison by an audience and by coactors, or the case of 'social facilitation'

According to Zajonc's (1965) model of social facilitation, audience (e.g. Alters who observe Ego's performance without giving explicit feedback) and coactors (e.g. Others who do the same thing as Self without an explicit comparison with Self) enhance the subject's arousal, and this, in turn, facilitates the emission of the dominant responses in the subject's response hierarchy and, by implication, inhibits the the emission of the subordinate responses in the subject's response hierarchy. Now, since the dominant responses in simple performance task are the correct ones (otherwise we would not call it a simple performance task), and the dominant responses in a learning task are the incorrect ones (otherwise we would not call it a learning task), audience and coaction both facilitate simple performance, and inhibit learning. In fact, we have used this last part of the model already when we used a simple performance task (e.g. speed) and a learning task (e.g. sequence of binary choices) in our measurement of changes after personal social comparison, and found opposite results for both types of task (see II.3).

However, our point of interest now is not why higher motivation facilitates simple performance and inhibits learning (for that is in itself not a social psychological, but a general psychological issue), but why audience and coaction seems to stimulate motivation (or the first part of Zajonc's social facilitation-model). In fact, Zajonc never explained this, but only took it for granted, as a means to explain the final effect on performance and learning. Cottrell (1972), however, suggested that audience and coaction stimulate motivation because they are 'conditioned stimuli' for 'outcomes of evaluation', which

obviously means that outcomes of evaluation are 'unconditioned stimuli of motivation', so that the frequent association of audience and coaction with these outcomes makes them 'conditioned' stimuli of the same motivation. However, as we have clearly seen thus far (and as the theory in figure 2 clearly predicts), **not all** outcomes of evaluation are unconditioned sources of motivation, but only those which deviate from the desired outcome of social comparison, or from +0.50 on the d-scale. Thus, in order to be more precise, we should say that audience and coaction are only sources of conditioned motivation because they leave the possibility open that the results of the comparison will not be somewhat superior, but may be equal or inferior. Therefore, audiences which do not have the possibility to evaluate Self, such as blind audiences, do not evoke any social facilitation either (for a more detailed description of this reframing of the theory of social facilitation, see e.g. Rijsman, 1983).

10. The attenuation of intergroup-discrimination when the Alter is explicitely on the side of Ego's Self by being a member of Ego's own ingroup

The tendency of the Ego-subject to socially construct a positive Self/Other-comparison is also visible in the pletora of experiments in which the experimenter leaves the value-difference between in- and outgroup undefined, and gives the opportunity to socially construct a value-difference to the subject. Indeed, what we often see in that case, is that the subject enhances the value of the ingroup, for instance by overevaluating the performance of the ingroup, or by giving more money to ingroup-members than to outgroup-members, etc. This kind of change-behavior is functionally equivalent to the change in the subject's performance by which the subject can enhance the similarity between Self and an ingroup which was already defined as superior by the experimenter (see our own studies on categorical social comparison in the previous paragraphs). However, it is obvious that the Alter with whom Ego socially constructs the positive image of Self in these experiments, is essentially the experimenter (and in some cases, namely when the other subject is also involved in the value-differentiation of the in- and outgroup, the other subject as well). Therefore, it is crucial to know 'what still needs to be negotiated' with the experimenter about Self. For instance, when the experimenter is a neutral figure, who does not belong to either the ingroup or the outgroup (which is almost always the case in all studies on intergroup-research), then, just like in the case of a passive audience or coaction in social facilitation, the outcomes of the construction are uncertain, which means that they may be negative as well as positive. This, as we have seen, is a good reason to take the outcomes in one's own hand, and 'make' it positive (e.g. by working harder, or by giving higher scores to the ingroup than to the outgroup, etc.). On the other hand, when it is obvious that the experimenter is 'already' on the side of Ego, then nothing needs to be negotiated any more and, hence, the so called intergroup-discrimination may disappear (not because the motivation does not exist any more, but because it is already fulfilled in the implicit sense-giving with the Alter). This is the point that we raised during Jose Marques' defense of his dissertation on intergroup-research, and which inspired him to replicate a typical intergroup-study with two different experimenter-conditions, namely one with an experimenter who was explicitely defined as a member of the subject's outgroup, and one with an experimenter who was explicitely defined as a member of the subject's ingroup, and the results were very clear, namely the typical intergroup-discrimination (in favor of the subject's ingroup) only appeared in the first case, but disappeared completely in the latter case (e.g. Marques, Yzerbyt, and Rijsman, 1988). In other words, the intergroup-discrimination is clearly a matter of social construction as well, and not some automatic machinery in the head of the individual subject (which, as we explained in our theoretical part, is only an abstraction of an internalized community of Ego/Alter-coordinations). In a sense, this is also what Rabbie c.s. (Rabbie, Schot, & Visser, 1989) claims in his so called Behavioral Interaction Model, when he claims that the intergroup-discrimination is essentially a product of the defensive negotiation of the subject with the possibly negative construction by the other subject (e.g.

the one who belongs to the outgroup), in case this other subject is also given some power to change the value of the in- and outgroup.

11. The evaluation of the best and the worst member of the ingroup and the outgroup, and its relation to Self

In his research on leadership, Fiedler found that some subjects rate their least preferred coworker in a group (real or imaginary) very low, whereas others much less low, even close to positive. Both types of subjects rate their most preferred coworker high, but the former (e.g. the ones with the very low rating of the least preferred coworker) somewhat higher than the latter. Fiedler called this difference between subjects the lpc-variable (e.g. an abbreviation of least preferred coworker) and correlated it with the subjects' success as leaders in various circumstances (e.g. Fiedler, 1964). In our own correlational and experimental analysis of this variable (e.g. Rijsman, 1966), we concluded that it is linked to the ingroup/outgroup attitude of the subject, in this sense that subjects with a high lpc (e.g. with a seemingly tolerant attitude toward poor coworkers) are actually those who are most intolerant, and most prone to treat people as members of the outgroup, because they actually define their lowest limit of acceptability for a coworker as not too far from Self. Low lpc-subjects, on the other hand, are more ingroup-oriented, because their lowest limit of acceptability is very low and, therefore, more tolerant. We found strong support for this view in a study in which high and low lpc-subjects were confronted with a really negative partner in an important task (e.g. an experimental game with high rewards, and in which the other player, actually a dummy, constantly tried to beat the subject). Now, low lpc-subjects described this partner before the game (thus, before they had any experience with his negative behavior) rather neutral, but stayed neutral after the game. High lpc-subjects, on the other hand, described the partner before the game more positive, but described him very negative (much more negative than the low lpc-subjects) after the game. Thus, the seemingly tolerant high lpc-subjects were precisely those who rejected a real opponent in a really important task most.

Later, Marques and Yzerbyt used a very similar procedure to differentiate between ingroup- and outgroup-attitudes of subjects, namely they asked them to describe the best and worst member of an explicit ingroup, and the best and worst member of an explicit outgroup, and what they found was nearly the same as the difference between a low and high lpc, namely that the best member of an ingroup was described quite high, and the worst member very low (e.g. the typical low lpc-pattern), and the best member of an outgroup somewhat less high, and the worst member much less negative (e.g. the typical high lpc-pattern). Marques called this 'the black sheep-effect' and concluded that, among other things, it is a strategy to protect Self, namely the construction of a wide range of acceptability, so that one does not need to infer a bad Self by the presence of a weak member in the ingroup (for if that would be the inference, then this would imply the necessity to redefine the weakness as outgroup, or a social cue, not of Self, but of the Other). (for more details on this 'black-sheep'-interpretation of the ingroup/outgroup difference with regard describing the best and worst member, see e.g. Marques and Paez, 1994).

12. The relationship between the social construction of the concept of 'conservation' and the social construction of social comparison

The concept of conservation, or of the invariance of the meaning of reality under various forms of appearance, can easely be defined as the social construction of a social comparison, but without preference. Indeed, when two children, say A and B, consider the liquids which look the same in similar glasses, as still the same in different glasses, then this simply means that they are willing to exchange these glasses among them, without the feeling of a gain or loss, or without the feeling that one has more or less than the other. Therefore, experiments

in which children are explicitely asked to cooperate on tasks until they agree on the equivalence of liquids which are poured in different glasses, are outstanding methods to let children understand the concept of 'conservation' (see the works of Doise, Mugny, Perret-Clermont and Nicolet, to which we referred already above).

Now, triggered by the obvious relationship between this type of research and the social construction of social exchangability between subjects, we decided to replicate the basic paradigm of this research, and to explicitely manipulate the factor of 'preference'. Concretely, we first tested children individually on conservation (using the standardized Goldsmid-Bentler test, 1968, for liquids). A week later, we formed "NC x C"-couples of children (NC meaning that the child was Non Conserving, and C meaning that the child was Conserving), and asked them to distribute limonade equally between them, but we gave them different glasses. In one condition, the NC child received a tall thin glass, and the C child a low broad one (this is the so called 'apparent advantage'-condition, because a NC-child considers a higher level in a thin glass as more than a lower level in a broad glass), and in another condition just the opposite (this is the so called 'apparent disadvantage'-condition). The children had to cooperate (whereby they could also use two equal glasses, but not their own ones) until they agreed on the equivalence of the result. A week after this interaction, the children were tested again, individually (with the same Goldsmid-Bentler test on liquids), and the percentage of children who progressed from NC on the pretest to C on the posttest was calculated. We found that the progress was 38% in the apparent disadvantage condition, and 62% in the apparent advantage condition (against 17% in a control condition, or a condition with only pre- and posttest, without any interaction in between). Thus, just like in the previous experiments of Doise, Mugny, Perret-Clermont, etc., the interaction had a positive effect on the child's learning of conservation, but the effect was much stronger in the condition of an apparent advantage than in the condition of an apparent disadvantage (see Rijsman, Ginther, Zoetebier, and Doise, 1980).

In a later replication of this experiment, we manipulated the glasses not only during the interaction between children (e.g. the second week), but also during the interaction between the child and the experimenter in the posttest (e.g. the third week). Concretely, instead of using the impersonal Goldsmid-Bentler-procedure during the posttest (which implies that the unequal glasses are just put on the table, without belonging to anybody, and the the child is asked to judge the equivalence of liquids in them), we gave one glass 'to the child' and the other glass 'to the experimenter', and asked then the child to judge the equivalence of liguids in both glasses. Now, the astonishing effect of this personalization of glasses during the posttest was that effect of glasses in the second week (e.g. during the interaction with the other child) reversed. Concretely, independent of who got the tall glass in the posttest, the child or the experimenter, children who had the tall glass during the interaction with the other child (e.g. the apparent advantage condition) progressed 30%, whereas those who had the broad glass during the interaction with the other child (e.g. the apparent disadvantage condition) progressed 60%. This, as the reader can see, is exactly opposite to the first experiment, in which the posttest was neutral instead of personalized. This reversal proved to be very reliable, because in another replication of the first and the second experiment, we got exactly the same reversal (e.g. Rijsman, 1985a). We are still wondering why this reversal took place, but in purely descriptive terms we can circumscribe it as follows: when children must apply their previous experience of exchangability to neutral circumstances, then they profit most from a previous experience in which they had at first the impression that they had more than the other (although they had not), but when they must apply the same experience to personalized circumstances, they profit more from an experience in which they had at first the impression that they had less than the other (although they had not).

In a third type of experiment, we replicated the first design (e.g neutral individual pretest -

personalized interaction between children - neutral individual posttest), but used a different type of personalization, namely we told the children that the reason why they should get the same limonade in the different glasses was that they had both helped the experimenter equally well in the first week. Now, this personalization - which Doise called 'social marking' - had an immense effect on progress, namely 80% (e.g. Doise, Rijsman, Van Meel, Pinxten, and Bressers, 1981). Unfortunately, two later replications of this manipulation failed to yield similar results, but they offered some clues why. Indeed, in the first experiment, with the strong effect, the experimenter treated the two children during the interaction very warmly and somehow made clear to them that they were 'both' very good, say better than other children. In the two replications, however, the experimenter treated them more like rivals who had the same score. Now, given the model of social comparison, the marking of 'equality' in a condition of rivalry (e.g. of Self/Other-comparison) is frustrating, but in a condition of 'ingroup'-formation, it is a social cue of both childrens' own Self. And maybe that is the reason why the first experiment had such a strong effect, whereas the two replications not (see Rijsman, 1988b). In his doctoral dissertation, Nicolet (1995) manipulated the relations between children, and found evidence which supports this line of reasoning.

13. Role playing and Self-justification: from content to structural identity

The classic experiment of Festinger and Carlsmith (1959) is generally described in the literature as an experiment in which subjects who performed a dull experimental task, and who then freely (or actually for one dollar) helped the experimenter with telling to the next subject that it was enjoyable, justified their behavior by changing their attitude in the direction of what they told, namely that the task, indeed, was enjoyable. However, in retrospect, this is not what the experiment really showed, for when the subjects were asked to tell to the next subject that it was dull, they changed their attitude as much in the positive direction as when they were asked to tell that it was enjoyable. In other words, not the verbal content of the played role, but something else must have been responsible for this change (e.g. Nuttin, 1966; Rijsman, 1996a, 2000). In speculating about what this might have been, we imagined that it might be the subject's collaboration with the experimenter. Indeed, what happens in Festinger and Carlsmith's procedure, is that the subject is asked to leave his position of subject, and to become an assistant of the experimenter in the manipulation of the next subject, and it might well be that only this change in structural position was enough to let the subject look more at the task through the eyes of the experimenter and, therefore, as less dull. In order to check that possibility, we ran a series of experiments in which we only manipulated the structural identity of the subject, without verbal role playing. Concretely, we asked the subject to perform a task (e.g. to read a text, or to send white noise to another subject in another room, etc.), but in one condition, we defined this task as the normal task of a subject, whereas in another condition, we defined it as the task of an assistant, who normally helps the experimenter in the manipulation of the other subject, but we invited the real subject to take over this role, because the assistant was ill (e.g. the same procedure as the one which was used in the experiment of Festinger and Carlsmith). As expected, the subjects in the latter condition rated the task considerably more positive than those in the former condition, whereas in fact, they did exactly the same work (Rijsman, 1983a; Bruin and Rijsman, 1993; Rijsman and Bruin, 1994). In retrospect, this finding does not only offer a possible explanation for the fact that positive and negative role playing yielded the same effect, but it also helps to explain the paradox between free choice and insufficient justification (Rijsman, 1999). Indeed, if the change of attitude had really been a consequence of insufficient justification (as the result of Festinger and Carlsmith is usually explained in the literature), then one wonders why subjects who were free, actually chose to collaborate with the experimenter. The only reasonable answer seems to be that they all really 'wanted' to collaborate with the experimenter, and took the opportunity as soon as they got it. In

retrospect, this is not surprising, because when we look at the experimental subjects in the experiment, then we notice that they were all students at a prestigious University, who had paid large sums of money, or who had passed severe entrance-exams to be 'allowed' to participate in course-work at that University, and to eventually arrive at a position at which the experimenter had arrived already. The high monetary reward for collaboration in that situation is obviously not a high pressure to do something which the students would not have done otherwise, but on the contrary, it is the elimination of their possibility to show that they would have loved to collaborate anyhow (and maybe even at the expense of their own money, if they had been asked to). The validity of this assumption became astoundingly clear to us when we wanted to replicate the Festinger and Carlsmith-procedure in a school for delinquent youngsters. These youngster, needless to say, did not pay to be in that school, nor wanted to ever arrive at the position of the experimenter. Now, when we asked these youngster to take over the role of our sick assistant in the manipulation of the next subject, they all bluntly refused and, thus, a manipulation which always appears as a complete success in the literature, failed competely. Of course, this experiment was never published, because there were'nt any results, but the fact that there were'nt any results makes clear that the results which are published, must come from institutions in which the subjects did want to identify with the experimenter, and took the opportunity as soon as they got it. Rutkowski (1999) made a comparison between this type of collaboration and the collaboration of subjects in Milgram's (1974) experiment on blind obedience, and showed that also 'paradoxical laughter', or laughter which appears at the seeing or hearing of a victim's pain, is probably a symptom of communication, or literally of 'forming a community' with the experimenter (e.g. the non victim) instead of with the other subject (e.g. the victim) (Rutkowski, Rijsman, & Gergen, 2004).

14. Locus of comparison

By locus of comparison, we formally understand the inclusion of a certain person as Other in the comparison with Self, or in other words in the zone between -1 and +1 on the d-axis of figure 2. By definition then, a subject will compare more intensely with somebody who is near to Self (e.g. relative to whom d is close to 0), but the preferred outcome of the comparison will be +0.50 (because that is the point where the pressures of comparison reach a dynamic equilibrium). Thus, it should make a whole lot of a difference whether we ask a subject to choose some Other for a final outcome of comparison (in which case Ego should choose somebody slightly inferior to Self), or whether we ask a subject to choose some Other with an opportunity to change the outcome (in which case Ego should choose somebody close to Self, eventually even somewhat better than Self, but of course not with the intention to leave it like that, but with the intention to emulate this Other, and to make Self somewhat better in the future). The latter phenomenon is exactly what we described in figure 3, where Ego, after having emulated the first Other, started a comparison with the second, somewhat superior Other, and after having emulated this second Other, started a comparison with the third Other, etc. This step-wise movement upward after succes is obviously identical to what we also know from studies on the level of aspiration, the only thing we need to do is to exchange the Other for some other standard of comparison, namely the level of Self at the previous occasion (which can also be defined as a some Other, namely Self at a previous moment). It is also self-evident in that case, that the typical upward shift after success (or inversely, the downward shift after failure) will only occur when the performance has a Self-involving meaning, which means that it informs the subject on the ability of Self (and, in social comparison, the ability of the Other). If not, for instance when the outcome only depends on good or bad luck (like in a roulette-game), then this typical shift will not occur (e.g. Rijsman, 1975a).

Remarkably, however, this 'level of aspiration'-like method of research, or research which

allows subjects to choose their standard of comparison and to change the result by personal performance, has virtually not been used in research on locus of social comparison, but instead, a different method, or one which we might call the method of 'selective curiosity', has very often been used, and became almost the paradigmatic definition of 'locus'. The typical procedure in this method of selective curiosity is as follows: after having taken some test, the subject is told his rank among other subjects (usually the middle rank), and is then given an opportunity to look in detail at the score of one or two other subjects in the entire list. The rank of the other subjects of which the subject wants to see the score in detail, that is what is defined as 'locus of comparison'. The typical result of this kind of research is that the subject first wants to see the top of the list, and then the bottom, or the so called 'scanning of the boundaries' (e.g. Thornton and Arrowood, 1966; Wheeler et al., 1969; Gruder, 1971; Wilson and Benner, 1971; Friend and Gilbert, 1973; Gruder et al., 1975; Gruder, 1977, etc.). However, it is very doubtful whether that kind of measure is a good operationalization of locus of comparison, because it is obvious that the curiosity for a certain score can as well be intended to 'exclude' the Other from the comparison with Self (for instance, in defensive social comparison, or comparison which is intended to prove the 'incomparability) as to 'include' the Other in the zone of comparability (at which moment the dynamics of figure 2 start to work). And it is also possible that the curiosity for a certain score has nothing to with social comparison at all, but is simply a 'scanning of the boundaries', or in the words of Sherif and Hovland (1961) and also of Wheeler et al. (1969), the 'end anchoring' of a series of stimuli. In order to illustrate the latter possibility, we replicated the 'selective curiosity'-paradigm, but instead of using Self and Other as rankordered stimuli, we used other stimuli, such as the density of birds per region, the number of hours of sunshine per year, etc., and asked the subject to indicate of which other rank in the list of rankordered stimuli he or she would like to see the score in detail, in order to evaluate the score of a stimulus in the middle of the list. Now, just like with Self and Other as stimuli, subjects typically wanted to see the top of the list first, and then the bottom, or in other words a clear 'end anchoring' (e.g. Syroit, Rijsman, and Von Grumbkow, 1980, and also Crano, 1987).

Besides this method of 'selective curiosity', some other methods were also considered to be measures of the 'locus of comparison', for instance the use of questions like 'with whom would you like to talk', or 'with whom would you like to affiliate', etc. (for an overview of several of these methods, see e.g. Buunk, 1994). However, just like with the method of selective curiosity, it is often very doubtful whether these methods really touch the issue of the inclusion of some Other in the interobjective comparison with Self. For instance, the choice of a partner for communication can simply refer to the choice of some Alter with whom Ego would like to construct the meaning of reality, instead of the choice of some Other with whom Ego would like to compare Self. Indeed, when a patient likes to speak with a surgeon before getting surgery, then this is most likely not to compare one's own chances of survival with those of the surgeon, but to get expert-information on what the chances are in comparison with other patients. The interobjective comparison, in that case, is with other patients, eventhough the answer to the question is 'with the surgeon'. This (but we could invent many more examples) makes clear how important it is to clearly specify the function of the socius, when we speak of social comparison, because the socius can be the Alter (and then we speak of social validation), or the ingroup (and then we speak of social categorization or social referencing), or it can be the Other (and then we speak of social comparison in the strictly interobjective sense of the word), and only in the latter sense is 'locus of comparison' a process of inclusion in the comparison with Self. Even the use of the word 'ingroup' can be used in these three different senses. Indeed, the ingroup can refer to the group of Alters who support the Ego in its social construction of a positive Self, or it can refer to the group of other people who serve as social cues of Self, or it can refer to the group

of Others who are used as loci of comparison with Self. Without a clear specification of the meaning of the word in a discussion on ingroups, we can say things which are totally inconsistent, for instance that we want equality with other members of the ingroup, which is true for consensus with Alters, and also for the identification of Self with other people who serve as social cues of Self, but which is not true for the comparison between Self and Others on X (e.g. Rijsman, 1985, 1991).

15. The social construction of social comparison in mixed motive games

A rather spectacular form of social comparison, is the so called 'social competition' in mixed motive games. For instance, imagine a game in which two players, A and B, can choose between L and R, knowing that when they both choose L, they both gain +2, and when they both choose R, they both lose -2, and when they choose differently, the one choosing R gains +1 and the one choosing L loses -1 (see matrix 1). According to the economic principle of 'maximin' (e.g. maximization of gain, minimization of loss), A and B should obviously choose L, because that is the choice with which can gain the maximum of +2, but according to the principle of social comparison, they should choose R, because with R they can gain more than the Other, namely +1 against -1, but when they do this both at the same time, they both lose -2. Now, it turns out that in real games of this kind, A and B often choose R, sometimes more than 50% in a game of 100 trials (e.g. McClintock, 1972, Rijsman and Poppe, 1977, etc.). Economists call this 'irrational' (e.g. has no reason in the theory of maximin), but in social psychological terms, it is fully 'rational' (e.g. has a reason which is consistent with the theory of social comparison), for it is merely the price which people pay to purchase Self-realization, or 'social cues' (e.g. outcomes in the game) which help to distinguish Self positively from the Other, and to get recognition for this. However, since both players want to achieve the same goals, but in opposite directions, they cannot construct this positive Self-image together, and that is why they constantly choose R, at the expense of economic loss. Thus, it is clear that the choice of R in this kind of games is not only an instrument to gain more than the Other, but also a form of communication between A and B to make clear what they want, and to disagree with their partner's message (e.g. Rijsman, 1970, 1980, 1983, etc.).

Of course, the principle of social comparison does not always lead to economic loss, but it may, in specific circumstances, also lead to economic gain. For instance, when we change matrix 1 in matrix 2 (which is done by reversing the outcomes in the unequal choice cells), then the tendency to gain more than the Other leads to a common choice of L, and the visible result is a maximization of gain. In the eyes of economists, this supports the idea of economic rationality (e.g. of maximin), but in fact, it is equally irrational as in matrix 1, namely free competition in which A and B connot stop gaining more and more in order to beat their competitor. The end-result of such endless maximization is obviously overproduction, with an exhaustion of one's own energy and that of the other, and still the possibility of dissatisfaction with a relative loss.

Matrix 1

		B: L	B: R
A	L	+2 \ +2	-1 \ +1
	R	+1 \ -1	-2 \ -2

Matrix 2

		B: L	B: R
A	L	+2 \ +2	+1 \ -1
	R	-1 \ +1	-2 \ -2

The ‘social’ background of social competition becomes very clear when we eliminate social comparison by putting A and B apart, in different rooms, without any knowledge of each other’s existence, without a view on the matrix, and only feedback on their own result after choosing L or R. The typical outcome of such a ‘minimal’ social condition, is that A and B choose a lot more L than in the previous ‘maximal’ social condition (e.g. Sidowski et al., 1957; Kelley et al., 1962). The reason for this differerent behavior is the psychological equivalent of the economic principle of maximin, namely the tendency to repeat choices which are followed by a reward (e.g. by a +, single or double) and to change choices which are followed by a punishment (e.g. by a -, single or double), or the so called ‘law of effect’. In order to see how this leads to L, take matrix 1 and imagine that A starts with L and B with R on the first trial. In that case, A’s choice of L is followed by -1 (because of B’s choice of R), and B’s choice of R is followed by +1 (because of A’s choice of L). As a result, A will change toward R on the second trial, and B will choose R again. Then A and B will both be punished by -2, which will make them choose L on the third trial. Then they get both +2, and as a result they continue to choose L. The same happens with other choices on the first trial (and needless to say that we get similar patterns in matrix 2, as the reader can easely check for himself).

Of course, we can imagine many variations of matrix 1 and 2, which complicate the relationship between the principle of maximin and social comparison. For instance, when we double the outcomes in the unequal choice cells instead of in the equal choice cells, we get matrix 3 and 4. Matrix 3, as the sophisticated reader immediately sees, is a so called ‘social dilemma’, which means that a simultaneous choice of maximin actually leads to a common loss. Indeed, the only choice by which a player can gain +2 in matrix 3, is R, but when both players choose it at the same time, they both lose -1. Now, just like in matrix 1, real players often choose R in this type of game (e.g. Rapoport and Chammah, 1965, etc.), and in the eyes of economists, this is a consequence of the tendency toward maximin. But, of course, it can also be a consequence of social comparison, because in order to gain more than the Other, each player, just like in matrix 1, must choose R. In matrix 4, on the other hand, social comparison, just like in matrix 2, forces players to choose L, which leads to a common submaximal gain of +1.

Matrix 3

		L	R
A	L	+1 \ +1	-2 \ +2
	R	+2 \ -2	-1 \ -1

B

Matrix 4

		L	R
A	L	+1 \ +1	+2 \ -2
	R	-2 \ +2	-1 \ -1

B

The mixed motive games, shown in matrix 1 to 4, can obviously also be offered to players in a so called ‘decomposed’ form, which means that the players, instead of choosing between L and R, choose directly one of the cells in the matrix, for instance +2 for Self and +2 for Other, or +1 for Self and -1 for the Other, etc. (e.g. Messick and McClintock, 1968). These decomposed games have been developed in the past in order to have a more direct expression of the subject’s motivation, because in the composed form, the subject’s motivation is obviously blurred by strategic considerations (e.g. the adaptation of one’s own choice to expections about the other player’s choice, etc.). These decomposed forms are generally used nowadays to measure the so called ‘social orientation’ of people, which means their tendency for a specific type of outcome in a framework of possible outcomes for Self and possible outcomes for Other. It was actually also this decomposed type of game, which Tajfel and Turner used in their research on social identity, but using outcomes for an ingroup-member and outcomes for an outgroup-member as variable alternatives, instead of

outcomes for Self and outcomes for the Other. But, of course, when the meaning of the situation is socially constructed in such a way that groupmembership, just like personal outcomes, becomes a 'social cue' of Self and Other, the motivation to gain more than the Other should appear as well, and especially when some Alter in the situation seems to be questioning the positive meaning of Self, for instance when the experimenter belongs to the outgroup (see our remarks on the dependence of intergroup-discrimination on the provenance of the experimenter in paragraph II.10). But of course, the clearest case of an Alter who belongs to the other group, is a bilateral game, in which both players choose one of the decomposed alternatives, knowing that the outcome for each of them will be the sum of the two alternatives. This is conceptually the same as a bilateral game in the composed matrices, but with a different technique of measuring preferences. It was actually this bilateral form of decomposed games, which Rabbie (1989) used to make clear that the intergroupdiscrimination is basically a product of the defensive reaction of the subject against an offensive partner, which, needless to say, is the same as saying that Ego will defend his Self against some Alter who is expected to prefer the Other (because Ego knows that the Other is the Alter's own Self).

16. The social construction of social comparison on two, complementary dimensions of comparison

The social construction of social comparison, which leads to mutual rejection in the case of one dimension of comparison, for instance in mixed motive games, should become the very basis of mutual attraction in the case of two complementary dimensions of comparison. The easiest method to clarify this idea is to use an imaginary case. For instance, imagine two subjects, A and B, who both want to move from here, H, to there, T. They normally do this alone, in the sense that they both walk and see to move to their goal. However, when one of them, say A, becomes blind, and the other, thus B, lame, then, in order to reach T, they must work together, and form a team with a walker, A, and a seeer, B. At that moment, the similarity of their individual goals becomes a group-goal, and their two organisms become an organization. However, the crucial point for our reasoning at this moment, is that this organization does not only bring A and B to their economic goals (e.g. reach T), but also to their social psychological goal, namely the mutual social construction of a positive social comparison. Indeed, A's sense of Self is projected on the dimension of walking, and B's on the dimension of seeing, and they both do not only allow, but even request each other to be better on the Self-relevant dimension of comparison. And the reason simply is that, eventhough the Other-for-comparison is the Alter's own person, it is not the Alter's own Self, because this Self is projected on the other, complementary dimension of comparison. This is probably the only case in which one's own inferiority is actually a basis for attraction (e.g. Rijsman, 1981, 1985, 1991, etc.), and as De Vries showed in a series of experiments, subjects, really choose a superior, instead of an inferior Other as complementary partner in such a case (De Vries, 1988).

The thought-experiment of A and B above, also makes clear why certain changes which, seen from an economic perspective, represent an improvement, are not supported by those who need to execute the change. For instance, imagine that a new technology, such as a wheelchair and a radar system, can take over the role of walking and seeing, then this would obviously constitute an improvement in the economic sense, but it would totally destroy A's and B's basis for Self-realization. As a result, they will probably reject this innovation and, hence, protect their Self at the expense of economic gain, just like they are willing to lose money (see the paragraph on social competition in mixed motive games) in order to gain more than the Other. This simple example also makes clear that the so called resistance to change is not really a resistance to change, but a resistance against the loss of Self. In fact, people constantly change, and even like to change, as long as the changes are variations in

the parameters of change (see paragraph II.2) which help to attain and maintain a positive Self. Therefore, change-management, paradoxically, is the management of the invariance of Self, by variation in the parameters of change. There are several models of change-management in the literature, but only few of them take the model of the social construction of Self/Other-comparison as point of departure. This is very strange, because without any doubt we can say that the most succesful social system, in human history, in creating and maintaining human adaptation to the demands of society, is the love and care of parents, or of any other group of people who constantly express a belief in the positive potential of those who need to 'learn something'. It would take us too far, in the context of this chapter, to review this literature on change-management, but let us suffice with saying that it is exactly this point which J. Nuttin, former president of the World-Union of Psychology, constantly emphasized in his work on human learning and motivation, namely that people adopt what contributes to their social construction of Self (e.g. Nuttin, 1984, etc.).

17. The social construction of the emotional Self, including anxiety

The social construction of the emotional Self is obviously, or just like the social construction of any other meaning of Self, a product of the coordinated interaction between Ego and Alters with regard to Ego's own existence. For instance, the social construction of hunger is by definition a product of the transformation of certain proprioceptions in the meaning of one's own body as needing food. In principle, this happens because Ego expresses these proprioceptions in exteroceptive signals (e.g. signals which can be detected by Alters), so that Ego and Alters engage in a coordinated interaction of feeding and eating. The prototype of this coordination is the mother's feeding of the baby when he or she cries. But since proprioceptions and exteroceptive signals are not necessarily related to each other in a correspondent way (e.g babies can cry for many proprioceptive signals, not only those of an empty stomach), it is, in principle, possible to also engage in a social coordination of feeding and eating for other forms of bodily arousal as well (e.g. the feeding of the baby when he or she cries for the discomfort of being too tired, etc.). This then, could well be the sociogenetic background for the famous lack of correspondence between the objective and the subjective need for food in certain types of obesitas (e.g. the feeling of being hungry for virtually all types of bodily arousal, provided that food is visibly and tangibly around, and the absence of hunger, even when the stomach is empty, but when signals of food, or of other learned signals of the need for food, such as the time of the day, etc., are absent, e.g. Schachter and Singer, 1962; Schachter, 1971). This process of transforming bodily signals in the emotional meaning of Self can obviously be generalized to other emotions as well, and easely explains the socio-historical character of several emotions, such as the feeling of being 'possessed by the devil' (e.g. the social coordination of extorsions at the appearance of convulsions), of 'spleen' (e.g. the social coordination of melancholic romances around the sensation of loneliness), of 'hysteria' (e.g. the social coordination of the exclusion of women from the male society at the unstructured expression of discomfort with the lack of freedom for lust or career), etc., etc. However, a large portion of arousal is not unconditioned, but stems from conditioned sources, such as the salivation at the sight of restaurant, or the heartbeat at the sight of a dangerous dog, etc. In principle, the meaning of these conditioned types of arousal is given in the processes of conditioning which led to the arousal, such as the anticipation of food when looking at the restaurant, or the anticipation of getting bitten when seeing a dangerous dog, etc. Therefore, the meaning of Self will probably be 'appetite', when sensing saliva at the sight of a restaurant, or will probably be 'fear', when sensing a heartbeat at the sight of a dangerous dog. This comes very close to James' interpretation of emotions as mental interpretations of diffuse bodily arousal (mainly visceral arousal) in terms of the stimuli which led to the arousal (e.g. James, 1890). Of course, many other types of bodily aoursal can also become the material for social constructions of an emotional Self, such as the artifical feedback on arousal (e.g. the hearmonitor in a clinic), the overattention to one's

own body (e.g. the sensation of one's own bloodstream in the tip of a finger when focusing on that finger, etc.). It would bring us too far to elaborate all these possibilities, and see how they can become sources of emotional Selves (for more on this, see e.g. Rijsman, 1984a).

However, there is one type of emotion that needs our special attention, because it is directly related to the social construction of social comparison, namely that of neurotic anxiety. For Freud, neurotic anxiety was merely the secondary defense of the Ego against the imminent reappearance of repressed impulses in the realm of consciousness, but in terms of the social constructionist theory on social comparison, it is Ego's defense against a negative social construction of Self. For instance, when a subject is confronted with a possibly negative evaluation by Alters of behavior which is normally evaluated positively, then this obviously constitutes a threat of Self, but when Ego has no right to speak with these Alters in terms of the negative meaning, then this does not allow to renegotiate the meaning in a positive sense, and it remains, what we call 'unconscious', but with a threat to 'become conscious'. This brings us back to the social constructionist definition of the unconscious with which we started this section on empirical illustrations, namely the conflict between our own external interpretations of the meaning of a subject's own life, and the interpretations which the subjects themselves tend to construct their Self, but then with other partners as Alters. Therapy, then, or whatever other form supportive consulting, is not like opening or closing a gate in the subject's individual stream of consciousness, but is playing the role of a facilitating Alter in the ongoing process of the social construction of Self in various, and often conflicting worlds of meaning (e.g. Rijsman, 1984b; McNamee and Gergen, 1992).

III. Conclusion.

It will be clear, at the end of this chapter, that we need to be careful with the use of the word 'social', in social psychology, because it can refer as well to the domain of the Ego/Alter-relations, which form the constructive basis of meaning (not only of Self and Other, but also of meaning in general), as to the domain of the Self/Other relations, which form the social content of meaning, as to the groups and categories which form the social cues which are often used in the social construction of the Self/Other-meaning. The diversity of the concept 'social' permeates the whole literature in social psychology. For instance, when James (1890) wrote about the 'Social Self', he clearly meant the dependence of the sense of Self on other people's recognition, and that is obviously a reference to other people as Alters, not as Others. Festinger (1954), on the other hand, in his theory of 'Social Comparison', basically referred to social in the sense of Others, which serve as basis for comparison with Self. And Tajfel and Turner (1979), finally, in their theory on 'Social Identity', used the word 'social' in the sense the groups and categories which serve as social cues of Self (e.g. ingroup) and of Other (e.g. outgroup). Once we are clearly aware of the level at which we talk, when we use the word 'social', there is little room for confusion, but the problem is that many other words which we often use to refer to social phenomena, such as power, ingroup, minority, etc., can easely be interpreted at each of the three levels, so that, when we do not specify the level, we can end up with very inconsistent forms of arguing. In fact, this is what we showed already in our analysis of Festinger's theory of social comparison, when we showed how he, at some points, mixed up the intersubjective (e.g. the Ego/Alter) form of social comparison (which we usually call social validation) with the interobjective one (e.g. the Self/Other one), and even ignored the intermediate or inferential role of social cues (in his case, the intermediate role of performance as social cue of ability, but we can think of other social cues as well, for instance groupmembership). Similar difficulties appear when we think of the word 'power'. For instance, power can refer to the effective exertion of force by the Alter in the sense-giving coordination with Ego, but it can also refer to the perceived position of Self on the dimension of power, and it can even refer to the social cues (e.g. the symbols of power) which Ego uses (of course, always in implicit or explicit coordination

with Alters) to infer the position of Self on some dimension of comparision, either the power dimension itself, but eventually also other dimensions. The issue of the possible difference in meaning is even more delicate in the case of the word 'minority', or its opposite 'majority'. As Mugny and several of his colleagues have repeatedly argued, it makes a whole lot of a difference whether we use the relation between the target and the minority in the sense of a process of social validation (e.g. in the sense of the effective coordination of Ego with a group of Alters), or in the sense of some group with which the Self of Ego is identified (ingroup) or not (outgroup), or what they call social comparison. Indeed, once a minority is 'psychologized' as crazy or deviant (see paragraph I.2), it becomes quite difficult for Ego to openly identify Self with such a group, for that would lead to a sense of inferiority, but that does not exclude at all that, on the covert or latent level (which does not allow a social construction, say with the experimenter as Alter, of perceived identity with that group), there is still the possibility of an effective coordination of sense-giving with the members of that group (but then in the sense of Alters). For more details on the various possibilities of (re)constructions of meaning in studies on minority/majority-influence, see for instance Perez, Mugny, Butera, Kaiser and Roux (1994), or Sanchez-Mazas, Mugny, and Falomir (1997). This immediately makes clear how the notion of ingroup and outgroup can be used in different senses as well. For instance, we can easely imagine a sentence as follows: "A few Alters agree with Ego that Ego's membership in a particular minority-group means that Ego's Self is superior to the Other who belongs to a particular majority-group". Now, the few Alters who agree with Ego can be seen as a positive ingroup, but then in the sense of positive supporters for Ego's Self, and the minority-group, with which Ego's Self is identified, can be seen as a positive ingroup as well, but then in the sense of a social cue, from which the meaning of Ego's Self is inferred. And we could even think of the specific Other, which is included in the comparison with Self, as an ingroup-member as well, but then in the sense of a locus of comparison on the given dimension of comparison (e.g. Rijsman, 1984, 1991). Thus, the need to be specific on the meaning of terms such as ingroup, power, minority, etc., with regard to the level of analysis (e.g. intersubjective, intermediate, or interobjective), is imperative, and is at the heart of a lot of diversity in the results, and diversity of interpretation. Even the role of the experimenter needs to be reconsidered in this regard, because it is clear that also the experimenter, as we have shown at various points, is a potent Alter who helps to define the meaning of the situation. And last but not least, even the role of our colleagues, as co-interpreters of the meaning of what we say, as well in theory as in illustration, is not irrelevant in this regard. Indeed, as we said at various points, the theory on social comparison which we presented in this chapter, is basically a reflection of the formal meaning of our own system of understanding (e.g. of what we mean when we speak of 'meaning', and more specifically, of what we mean when we speak of the meaning of Self and Other), and illustration is basically an invitation to look at the behavior of subjects as concrete expressions of that reflection. We did not ask the subjects themselves whether they agree or not, except in the form of their concrete behavior that we, as colleagues, interpret as concrete expressions of what we concluded in our reflection. Therefore, all the illustrations which we provided, essentially depend on your willingness to co-construct with us a formal type of reasoning. If not, nothing has been illustrated.

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