Emotion In Persuasion: A True Marriage Between Cognition And Affect

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1   Introduction

Persuasion is a form of social influence, a topic addressed by many disciplines and approaches: marketing and advertising, law, linguistics and rhetoric, social psychology and communication studies, politics, public relations, human-computer interaction, and so-called "captology" (e.g., Fogg, 1999), that is, the use of computers as persuasive technologies. Social influence, concerning the production of any kind of change of others' beliefs, goals, or behavior, includes a much broader class of phenomena than mere persuasion. Even considering only the *intentional* change of others' attitudes, we can find different forms of intentional influence.

To start with, one may want to change others' goals or behaviors without acting upon their beliefs. Mere reinforcement may work in such cases: by rewarding or punishing others' behaviors, one may influence the establishment or extinction of such behaviors. This kind of influence is very far from persuasion, one of the reasons (albeit not the only reason) being precisely that it does not necessarily imply the medium of others' beliefs. In this regard, consider a nice example reported by Rhoads (1997), about a psychology professor who was teaching his students the basics of behavioristic psychology, of rewards and punishments:

> *The story goes that his students decided to test the professor's theories... Whenever the professor lectured from the right side of the room, the students became distracted and noisy. When he moved to the left side of the room, they listened with rapt attention. By selectively rewarding the professor's location in the room, the class was able to shape the professor's lecturing behavior to the point that he would enter the room and walk immediately to the left wall, leaning against it during the entire lecture. When the students finally revealed their prank... the professor denied any influence over his behavior, and insisted that lecturing while leaning against the left wall was simply his preferred style!*

It might be argued that mere rewards and punishments (those devoid of any anticipation through the influencer's promise of reward or threat of punishment) may often induce some (conscious or unconscious) belief in the rewarded or punished people (e.g., "If I do *x*, dad will give me a thrashing") which are likely to impact on their subsequent behavior. However, it still remains that the provider of mere rewards or punishments does not act directly on such beliefs. Thus, so far we might draw the conclusion that for being considered a form of persuasion, social influence should directly act upon the target's beliefs.

On the other hand, one may want to change others' beliefs regardless of the latter's impact on their goals and behaviors. More precisely, though a potential impact of beliefs on goals is generally unavoidable, one may be uninterested in such effects. For instance, I may want you to believe that "American Beauty" is the best movie made in the last 20 years (because, say, I wish to achieve consistency between your judgments and mine) independent of the possible impact of such belief on your goals and behaviors. Such forms of influence are aimed at directly modifying others' beliefs, but we would hardly see them as kinds of persuasion proper, as long as the belief change is not meant to be instrumental to changing the others' goals. As pointed out by Guerini, Stock, and Zancanaro (2003), "while argumentation is concerned with the goal of making the receiver believe a certain proposition…, persuasion is concerned with the goal of making the receiver perform a certain action". Argumentation may be (and often is) implied in persuasion, but *for persuasion proper to apply, belief change should be aimed at goal change.*

Actually, one generally wants to change others' beliefs *in order to* change their goals, or their importance, and induce a consequent behavior. Persuasion is placed in this area. However, again, one's intention to change others' beliefs in order to change others' goals or their importance (and induce a consequent behavior), is still insufficient to qualify "persuasion". Consider one's provision of some perceptual input (or, more generally, of some physical conditions) to another when such provision is precisely aimed at changing the other's beliefs as a means for changing their goals. For instance, suppose that one sets fire to a room, or simply produces some smoke in the room, in order to induce another's belief that a fire is breaking out, in order to make the other get out of the room. We doubt that this kind of influencing should be considered a case of persuasion. Conversely, if the influencer says something like "Don't you see the smoke? Better we get out!", this would more likely resemble a case of persuasion. In other words, *communication* appears to be a necessary ingredient of persuasion. We endorse here a strict notion of communication, according to which the sender of a (verbal or non verbal) message should have a *communicative goal*. By communicative goal we mean the goal of making someone believe not only a given proposition *p* but also *one's own goal of making them believe p* (Castelfranchi & Parisi, 1980). In fact, one may want to make another believe something without making them assume one's own goal of making them believe it (like in the case of the mere provision of perceptual input).[1]

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[1] It is worth specifying that communication is by no means restricted to verbal messages. In fact, there are innumerable instances of non verbal communication. For example, by

So far then, we have stated that for social influence to be a form of persuasion it should be intended to (a) act upon others' beliefs (b) in order to change their goals and behaviors, and (c) this should be accomplished through communication. However, such forms of influence as orders, threats, and promises seem to satisfy the three requirements above, and still one would hardly see them as forms of persuasion. The reason is that they induce *compliance without agreement*. In fact, persuasion typically involves the addressee's conviction of the *intrinsical* relevance of the conveyed beliefs to their own goals and behaviors. Conversely, orders, threats, and promises impose an extrinsical relationship between beliefs and goals, and between means-goals and end-goals, through the medium of the influencer's will: "I want you to do *p*; if you don't do *p*, I will prevent you from obtaining *q*; "If you do *p*, I will allow you to get *q*". By itself, "doing *p*" is not a means for "getting *q*": it is only through the influencer's power over the addressee that the relationship is extrinsically, or "artificially" established (see Castelfranchi & Guerini, 2007). Conversely, for persuasion to occur, the change of the addressee's goals and behaviors should be a "free" change, independent of the influencer's excercising power over them (Poggi, 2005). More precisely, we might say a *minimal* condition for persuasion to apply is that the Persuader should want that the Recipient intends to do a certain action *not only* because P wants R to do so (Miceli, de Rosis, & Poggi, 2006). This implies that the *ad baculum* argument (see Walton, 1996a) is outside the realm of persuasion to the extent to which it involves the exercise of power or force by P over R.

As pointed out by Pratkanis and Aronson (1991), Western societies prefer persuasion more than other societies do. We are more interested in changing others' minds than mere behaviors, and in doing so through the others' agreement, rather than mere compliance. This preference stems both from our ethical and democratic values of freedom and from utilitaristic and pragmatic considerations. In fact, persuasion proves to be far more effective than coercion, especially in the long run. Coercion requires a good deal of power over the addressee (to obtain compliance, one should be *able to punish* non-compliance), as well as the constant monitoring of their behavior (non-compliance is very likely if there is insufficient control). Conversely, once persuasion has been accomplished, the "instilled" goal or behavior is much more likely to last, regardless of any further intervention from the persuader. Thus, to the basic requirements of persuasion we have identified so far – (a) intended modification of others' beliefs (b) in order to change their goals and behaviors, (c) performed through communication – we should add (d) without coercion.

A further relevant issue is that of manipulation. Manipulation might be defined as P's acting on R's beliefs through communication in order to induce R to conceive intentions or perform actions that are in fact instrumental to P's own goals, while pretending to assume (and making R assume) they are in R's interest. Unlike what happens in coercion, however, here R should believe (according to P's plan) that her

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ostensively taking an umbrella while looking at you before going outdoors, I am making you believe not only that it is raining (or going to rain), but also my *goal* of making you believe it. We view such cases as instances of communication proper.

beliefs and goals are "freely" changing. That is, R should intend to do a certain action independent of P's exercising his power over her. (From now on, we will refer to P as a he, and to R as a she.) P is in fact not imposing any extrinsical relationship between R's beliefs and goals, and between R's means-goals and end-goals, through the medium of his will. He is just concealing that R's intention and behavior is (also) instrumental to some goal of his own. Three basic features characterize manipulation: (a) P's *exploitation* of R, as if she were an object or means; in fact, P takes R's goals into account not as ends, but only as means (hence the etymological meaning of "manipulating") to his own goals and interests; (b) P's *deception* about the end-goal of his persuasive plan: deception is somehow necessarily required by exploitation in that, should R believe that her feelings and goals are cared about and looked for by P only as means to his own goals, R would resist P's influencing; (c) *unfairness*, which is implied by both exploitation and deception.

According to some authors (e.g., Burnell & Reeve, 1984) manipulation is not a form of persuasion, in that the latter should be limited to those cases in which P "acts in good faith", that is, in R's interest, without taking advantage of R in view of P's own interests, and without any deceptive intent. We see this notion of persuasion as too narrow, and prefer to talk of either manipulative or non manipulative persuasion (see below).

In what follows, we will first introduce our definition of persuasion, implying the constituting features we have discussed so far. We will then outline the implications of our definition in terms of the basic principles of any persuasive attempt. Further, we will address persuasion strategies, focusing on the distinction between emotional and non emotional ones. Once outlined the basic relationships existing between emotions and goals, which are at the foundation of emotional persuasion, we will present two general kinds of emotional strategies, *persuasion through appeal to expected emotions* and *persuasion through arousal of emotions*, and illustrate the typical features of each kind. We will then focus on *persuasion through arousal of emotions*, discuss some issues and problems it raises, and in particular analyze the Persuader's reasoning and planning implied by this strategy, focusing on the arousal of two "germane" emotions, envy and emulation. Finally, we will briefly compare our model with the dual-process theories of persuasion – the elaboration likelihood model by Petty and Cacioppo (1981, 1986) and the heuristic-systematic model by Chaiken (1980, 1987) – and provide some concluding remarks on the specificity of our approach, as well as on possible directions of research on persuasion.

2.   A Definition of Persuasion

By persuasion we mean *an agent P's intention to modify, through communication, R's beliefs or their strength, as a means for P's superordinate goal to have R freely generate, activate or increase the strength of a certain goal q and, as a consequence, to generate an intention p instrumental to q, and possibly to have R pursue p; but the minimal condition is that R has that intention* (Miceli, de Rosis, & Poggi, 2006). To provide a very simple (and simplified) example (see Fig. 1), consider P's persuasive

message, "Your cholesterol level is high; maybe you are overweight", aimed at modifying R's beliefs (about R's cholesterol level and consequent need to lose weight), as a means for making R freely activate goal q of being in good health and, as a consequence, to favor the generation in R's mind of the intention p to lose weight, instrumental to q. It is worth specifying that what is sketched in Figure 1 is just P's persuasive plan, not necessarily its effect on R's mind.

Generation of R's intention: *To lose weight*

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Activation of R's goal: *Being in good health*

↑

Change of R's beliefs (about her cholesterol level/her need to lose weight)

↑

P's Communication: "Your cholesterol level is high; maybe you are overweight"
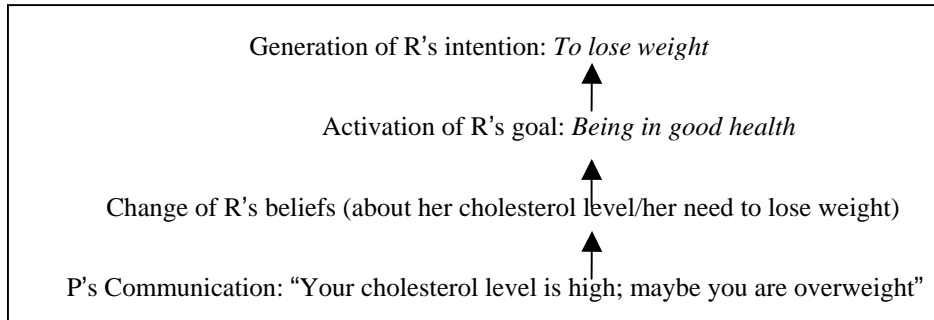
Fig. 1: An example of persuasive attempt

As is apparent from the definition above, our model takes the Persuader's perspective, thus focusing on his theory of the Recipient's mind, and his planning for influencing R, that is, for changing R's mental state so as to make her intend to do a certain action or plan. We also circumscribe the notion of persuasion in relation to such criteria as *accidental* versus *intentional* (intentionality is necessary), *communicative* versus *non communicative* (communication is necessary), and *coercive* versus *non coercive* persuasion (non coercion is necessary).

With regard to a criterion such as *success* versus mere *attempt* at persuasion, being interested in P's planning aimed at persuasion, we do not view its actual success as a necessary requirement for its being a persuasive planned intention. The latter remains a persuasive intention irrespectively of its effects (which may depend on a variety of factors, including contextual or accidental causes). Thus, by persuasion we mean a persuasive intention and attempt rather than a successful persuasion.

With regard to the *manipulative* versus *non manipulative criteri*

order to achieve his own goals. In this case, to effect his purpose, P will have to conceal this relationship from R, by making her believe that *q* corresponds, as well, to his own final goal. Thus, just as our notion of persuasion encompasses both manipulative and non manipulative cases, in the same vein it includes both *sincere* and *deceitful* persuasion. In any case P, in attempting to persuade R, is trying to make her believe that a relation holds between *p* and *q*, whether P himself believes this relation to hold or not, and whether the arguments P uses to convince R are sincerely shared by him or not.

In our definition we distinguish *goal* from *intention*. Our notion of *goal* is very basic, in terms of regulatory state of a system, that is, a representation that the system tries (through its actions) to liken the world to (e.g., Miller, Galanter & Pribram, 1960; Rosenblueth, Wiener & Bigelow, 1968). This regulatory state or goal is actually a complex family, including wishes, needs and intentions. In a world where resources are bounded, not any goal is *chosen for being pursued* (Bell & Huang, 1997; Castelfranchi, 1996; Haddadi & Sundermeyer, 1996). This choice depends on a variety of criteria, including the perceived importance of the goals, their feasibility, and the amount of resources required to accomplish them

An *intention* is a special kind of goal, which mediates the relationship between mental attitudes and behavior (Ajzen, 1985; Fishbein & Ajzen, 1975). It is a goal endowed with the following defining properties: it is conscious; consistent with both the agents' beliefs about its possible achievement and their other intentions; chosen, i. e., implying a decision to pursue it; and planned for. So, an intention is always about some action or plan. The decision to pursue the goal implies the agent's *commitment* to it (e.g., Cohen & Levesque, 1990). However, also an intention is not necessarily pursued. If a goal is *chosen for pursuit*, and some *planning* is being done for it, this goal is already an intention – namely, what Bratman (1987) calls a "future-directed intention", rather than an "intentional action".

In our definition we also distinguish goal *generation* from goal *activation*. A goal is *active* when it is included in the agent's "goal balance" (Castelfranchi, 1990), that is, when the agent starts to assess its importance and/or feasibility through comparison with other candidate goals, in view of its possible translation into an intention. An active goal is not yet an intention; it may *become* so if that goal is finally chosen for pursuit. An *inactive* goal of R (that is, a goal currently not included in her goal balance) can be *activated* by P when, in various possible ways, P makes the goal enter into R's goal balance.

By contrast, a *generated* goal is a new goal, i.e., a regulatory state that comes to be newly represented in an agent's mind. Goals are generated as means for pre-existing goals (Conte & Castelfranchi, 1995). The means-end relationship between a generated goal and a pre-existing one may be either internally represented (that is, planned by R) or external to R's mind. For instance, the goal to have sex is functional to reproduction, but at the psychological level R might want to have sex just for its own sake, regardless of its superordinate function. Also an intention may be *generated* as a means for a pre-existing goal, on condition that this goal is *active* in R's mind.

3. Basic Principles of Persuasion

First of all, as our definition implies, *P should have a* (more or less explicit) *theory of R's mind*. This includes a general, "universal" theory of mind, that is, a theory of the basic relations between mental attitudes, and between the latter and actual behavior. For instance, P should know that one's having goal *q* and assuming that *p* is a means for *q* increases the likelihood that one pursues *p*; or that one's being angry at another increases the likelihood of one's trying to hurt that other; and so on. It includes as well a general theory of "personality" and its possible impact on attitude change. For instance, P might consider that self-esteem is likely to affect one's receptivity to some form of persuasion (see, e.g., McGuire, 1969). Finally, P should also have a more specific theory of his individual target's characteristics and dispositions, that is, R's personality, hence R's typical goals and values, as well as R's specific goals and beliefs which are currently active in the situation at hand.

Secondly, a general principle of any form of persuasion is in our view that of *goal "hooking"* (Poggi, 2005). That is, *in order to have R intend p, P should "hook" p to some other goal q that (P believes) R already has of her own*. In fact any persuasive attempt implies P's acting on some of R's pre-existing goal while (more or less explicitly) suggesting a means-end relationship between the intention he wants to induce in R and that pre-existing goal of R. The principle of goal hooking reminds to some extent the notion of "Socratic effect" (McGuire, 1960). The latter is grounded on cognitive consistency, and posits that interrelated beliefs become more consistent if they are made *salient* to the individual in close temporal proximity. Therefore, if applied to persuasion, the Socratic effect would imply that P has nothing to do but make "salient" what is *already* believed by R. As stated by McGuire (1960, p. 345): "The postulate of cognitive consistency suggests that persuasion could be effected by the quite different technique of eliciting the persuasive material from the person's own cognitive repertory, rather than presenting it from outside". We do not totally endorse such a view, in that we believe that some "persuasive material" may be presented from "outside" as well. (For instance, we do not assume that R should necessarily know that *p* is a means for *q*.) However, we assume that persuasion cannot apply if P does not make "salient" some pre-existing goal of R's. We also assume that P's attempts at increasing the consistency of R's system of beliefs and goals is often instrumental to indicating a means-end relationship between some pre-existing goal *q* of R and the intention *p* he wants to induce in R (thus "hooking" *p* to *q*). Such a means-end relationship may or may not be already known by R, but in any case it should be derivable from her pre-existing beliefs.

Finally, any persuasive attempt implies *P's* (more or less explicit) *goal to show his unselfish concern*, i.e., to show that the end-result of persuasion is in the interest of R (both when P is acting in his own interest and when he is genuinely acting in R's interest). In fact, if R (rightly or wrongly) supposes that P is motivated by a selfish concern, she is likely to harbor the suspicion of being manipulated, which would in turn hamper R's free activation or generation of the candidate goals P wants to induce

in R. In other words, P's goal to show his unselfish concern is aimed at preventing R's *resistance* to persuasion. Actually, resistance may depend on a variety of causes, for instance, R's experiencing negative affect and attributing it to the content or the source of the persuasive message (Cacioppo & Petty, 1979; Zuwerink & Devine, 1996), or the mere fact of being exposed to attitude-incongruent information (Frey, 1986; Gilbert, 1993). However, the suspicion of manipulation is in our view a powerful instigator of resistance: if P appears to "use" an alleged interest of R as a mask for his own interest, there is indeed reason to question the truth value of the persuasive message itself. As a consequence, the suspicion of manipulation may favor R's counter-arguing, which in turn impacts on metacognition, increasing the certainty of R's original attitudes (e.g., Tormala & Petty, 2002, 2004), which P was trying to change. A special form of resistance is *reactance*, which is merely concerned with the perceived threat to one's freedom, and typically implies the attempt at restoring such freedom through a behavior which is the opposite of the persuasive message (e.g., Brehm, 1966; Wicklund, 1974). Since the point of reactance is to contrast any threat to R's self-determination, reactance can occur even when R is convnced that *p* (the intention that P is suggesting her to pursue) is a means for her goal *q*, because in any case accepting P's suggestion thwarts R's goal of deciding by herself, which may be much more important to her than any possible *q*. But, a fortiori, if R suspects that P is trying to influence her in view of some personal advantage, R's need for self-determination and control is particularly threatened, and (independent of the content of the message) R is highly motivated to show that P has no influence on her.

However, the difficulties implied by R's concern for her freedom and possible suspiciousness toward manipulation are mitigated by a certain degree of "gullibility" which is favored by the typical tendency to overestimate one's own control over one's attitudes and behavior (e.g., Fischhoff, 1994; Kelley, 1971; Langer, 1975; Taylor & Brown, 1988).

4. Emotional vs. Non Emotional Persuasion

Innumerable possible typologies of influencing and persuasion strategies can been suggested (e.g., Kellerman & Cole, 1994; Levine & Wheeless, 1990; Marwell & Schmitt, 1967; Mulholland, 1994). However, taxonomies and typologies are not always founded on solid theoretical grounds. The poor interest in theorizing typical of some influence domains, for instance advertising, is one of the reasons for this theoretical weakness. In fact, clever advertising may identify and employ effective strategies without being interested in analyzing *why* they work, as well as their possible conceptual and functional relationships.

We personally have a taste for general classes of strategies, which concern the mental mechanisms and processes implied, rather than (or before) focusing on the specific content of persuasive messages, the kinds of goal to "hook", or the positive vs. negative valence of the goal. Representative examples of general classes of strategies are the well-known dual-process theories of persuasion: the elaboration likelihood model by Petty and Cacioppo (1981, 1986) and the heuristic-systematic

model by Chaiken (1980, 1987). Although these two models present some important differences, they share a number of basic assumptions: (a) a "least effort" principle, according to which people tend to process information superficially unless they are motivated otherwise; (b) a "capability" principle, according to which, for engaging in a systematic, "effortful" elaboration of the information received, people should be endowed with sufficient cognitive skills, need for cognition, background knowledge, and time; otherwise, they are likely to process information superficially; (c) the existence of two general modes of thinking, corresponding to two general routes to persuasion – the "central" or "systematic" one, characterized by careful elaboration and evaluation of the message and the quality of its arguments; and the "peripheral" or "heuristic" one, characterized by the use of cues (for instance, the attractiveness or supposed expertise of the communicator) or heuristics, that is, simple decision rules (for instance, "scarcity implies preciousness") to judge the validity of a message; (d) the differential impact of persuasion variables depending on the matching between the persuasion "tool" (arguments or cues) used by P and the thinking mode used by R.

We propose two general classes of persuasion strategies: emotional and non emotional (which, as we will discuss later on, present connections with, as well as differences from, such dual-process theories of persuasion). Our definition of persuasion is general enough to cover both emotional and non-emotional persuasion. Actually, we view emotional persuasion as a sub-case of general persuasion. By emotional persuasion we mean a *persuasive intention which appeals to R's emotions*. That is, its specificity lies in the *means* used by P while trying to generate, activate, etc. R's goals (Miceli, de Rosis & Poggi, 2006). This may happen through the medium of R's emotions in a twofold sense: either through the actual elicitation of some emotion in R (*persuasion through arousal of emotions*) or by appealing to R's expected emotions, that is, to R's beliefs and goals *about* her emotions (*persuasion through appeal to expected emotions*) (see also O'Keefe, 2002).

Before describing these two kinds of emotional persuasion, however, we have to discuss more generally why appealing to emotions is functional to persuasion, and outline the basic relationships existing between emotions and goals, which we view at the foundation of emotional persuasion strategies.

The importance of appealing to emotions for persuasion has been acknowledged since the most ancient times. As Aristotle already argued, persuasion relies on the interplay of three basic ingredients: the persuader's credibility and trustworthiness, especially his moral character (*ethos*); a logical and well-reasoned argument (*logos*); and the feelings of the audience (*pathos*). From Aristotle on, it has been widely acknowledged that persuasion is likely to appeal to both the informational and the emotional sides. Attitudes are complex constructs composed of action tendencies, a complex of beliefs, and emotional states associated with, or aroused by, the object of the attitude (Fishbein & Ajzen, 1975). Modifying an attitude implies modifying its three components.

In particular, emotional responses are characterized by a special strength and immediacy. Under certain conditions, the emotional component seems to hold a sort of "primacy" over the informational one. For instance the possible inconsistency

between affective and cognitive components is more likely to be resolved in favor of the affective components, that is, by changes in cognition rather than affect (see Jorgensen, 1998).

The reason for the particular strength and immediacy of the impact of emotions on attitude change lies in our view in their strict and manifold relationship with goals. In fact, three distinct relations may hold between emotions and goals: emotions *signal* goal pursuit, achievement and failure; they *generate* goals; and they may *translate* into goals (Miceli & Castelfranchi, 2002; Miceli, de Rosis & Poggi, 2006).

4.1   Relationships Between Emotions and Goals

First, emotions *signal* the (possible) achievement or thwarting of goals (e.g., Frijda, 1986; Gordon, 1987): the experiences of fear, anxiety, shame, guilt, surprise, joy, and so on, all work as signals of the destiny of our goals, thus accomplishing an informative function about our relationship with the environment (e.g., Damasio, 1994; Keltner & Ekman, 2000; Lazarus, 1991; LeDoux, 1996; Schwarz, 1990).

Second, once an emotion has signalled the (possible or actual) destiny of some goal, a behavioral response is likely to follow, which implies the generation of some other goal. For instance, once fear has signalled the presence of a possible danger, it produces the goal to avoid it. In the same vein, A's envy toward B, besides signalling (to A) that A's goal of "not being inferior to B" has been thwarted, generates A's goal that B suffers some harm (Miceli & Castelfranchi, 2007). This generative relationship between emotions and goals is at the foundation of what we have called *persuasion through arousal of emotions*.

It is worth pointing out that often the goal generated by an emotion (for instance, in the case of envy, the goal that B is damaged) is *instrumental* to the goal whose achievement or thwarting is signalled by the same emotion (not being inferior to B). However the means-ends connections of the goals generated by emotions are not necessarily represented in a person's mind. (In envy, for instance, A wishes B's harm as an end in itself, not as a means for not being less than B.) Here a particular perspective on psychological mechanisms and processes is implied: the functional and evolutionary one, which is concerned with the psychological mechanisms that evolved to solve adaptive problems (such as escaping dangers, finding food, shelter and protection, finding mates, being accepted and appreciated by one's conspecifics) and thus surviving and delivering one's genes to one's own offspring. From the perspective of evolutionary psychology (e.g., Tooby & Cosmides, 1990), emotions generate goals our ancestors had to pursue in order to answer such ecological demands. And, of course, the instrumental relation between such emotion-generated goals and their functions was far from being represented in our forefathers' minds.

Finally, emotions "become" goals. More precisely, the anticipation that a certain emotion will (not) be felt may give rise to the goal of (not) feeling it. As a consequence, agents may perform (or avoid performing) an action *in order* (not) *to feel a certain emotion*: I may give you a present to feel the joy of making you happy;

or do my own duty not to feel guilty. In behavioristic terms, emotions are often (positive or negative) reinforcements. Hence the important role they play in learning: a given action can be performed not only on the grounds of one's expectations about its outcome and evaluations of its costs, but also in order (not) to feel the associated emotions. Expected emotions play in fact a remarkable role in decision-making. They belong to the set of tools an agent can use for discriminating among different choices. That is, an expected emotion induces the goal (not) to feel it, and this goal may enter the decision-making process with a given value, possibly modifying the value of the available options. For instance, while considering to cheat my colleague to obtain an advancement at work, I expect to feel guilty; this expectation induces the goal not to feel guilty, which impacts on my decision making to such a point that I give up the option of cheating.

This kind of relationship between emotions and goals is, as we are going to see, at the foundation of what we have called persuasion through *appeal to expected emotions*.

4.2 Persuasion Through Appeal to Expected Emotions

In persuasion through appeal to expected emotions, *P's intention to modify R's beliefs or their strength is a means for P's super-goal to activate, or increase the strength of, R's goal of (not) feeling a certain emotion, and to induce in R an intention instrumental to this goal*. For instance (see Fig. 2) P's saying to R "If you are kind to John, you will not feel guilty" is meant to activate R's goal q of "not feeling guilty", while suggesting the intention p of "being kind to John" as a means for q.

As one can see, an appeal to expected emotions is structurally indistinguishable from any other "argument from consequences" or, in our terms, "intention generation by goal activation". The only difference resides in the *content* of the activated goal: in the appeal to expected emotions, this content is precisely that of "feeling" a certain emotion rather than having a certain state of the world true. Actually, there is no structural difference between "If you are kind to John, you will not feel guilty", and, for instance, "If you are kind to John, you will obtain an advancement at work". In fact, *persuasion through appeal to expected emotions* is a form of rational and *argumentative* persuasion, in that it applies typical rules of reasoning about means-ends relationships, with the sole specification that the "ends" considered concern a special class of goals: the goals to feel (or not to feel) certain emotions. By contrast, as we are going to see, *persuasion through arousal of emotions* contains an a-rational component as long as the aroused emotion generates a certain goal independent of any reasoning.

Generation of R's intention: *Being kind to*

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Activation of R's goal: *Not feeling guilty*

↑

Change of R's beliefs (about the means-end relation between "being kind to John" and "not feeling guilty")

↑

P's Communication: "If you are kind to John, you will not feel guilty"
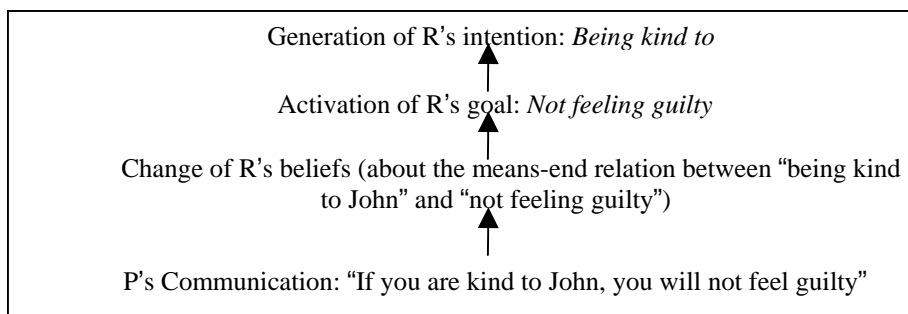
Fig. 2: An example of persuasion through appeal to expected emotions

The role played by the anticipation of future emotions in decision making and behavior has recently started to be systematically addressed. In particular, decision theorists have started to modify the traditional expected-utility theory so as to account for the role played in decision by anticipated emotions, such as anticipated pleasure or pain, disappointment or regret (e.g., Bell, 1985; Loomes, 1987; Mellers & McGraw, 2001). Actually, anticipated emotions seem to work quite well as predictors of intentional behavior (e.g., Parker, Manstead, & Stradling, 1995; Richard, Van der Pligt, & De Vries, 1996; Zeelenberg & Beattie, 1997).

Therefore, persuasion through appeal to expected emotions offers a valuable means to affect others' decision making by anticipating the possibile emotional consequences of their behavior. Of course, P's knowledge of the basic components of emotions and their interrelations, as well as of R's dispositions and personality, are crucial requirements for the applicability of this strategy.

4.3   Persuasion Through Arousal of Emotions

So far the impact of felt emotions on persuasion has been addressed in psychology by mainly focusing on the differential influence of positive and negative moods on attitude change (e.g., Eagly & Chaiken, 1993; Petty, DeSteno & Rucker, 2001). As rightly emphasized by DeSteno, Petty, Rucker, Wegener, and Braveman (2004), this represents a gross oversimplification of the emotional experience and its influence on persuasion, because it disregards the different appraisals implied by discrete emotions (e.g., Lazarus, 1991; Smith & Ellsworth, 1985), even when they are of the same valence, as well as their potential impact on attitude change. For instance, as shown by Lerner and Keltner (2000), two negative emotions, fear and anger, are likely to affect judgment and behavioral orientations in opposite ways.

Unlike the mainstream orientation, DeSteno et al. (2004) address the impact of discrete emotions on persuasion. However, they are interested in the role played by *incidental* emotions, that is "emotions with no direct connection to the message topic" (p. 44), which are induced in the participants *before* exposure to a persuasive message. By contrast, we are interested in emotion arousal *through* a persuasive message.

More relevant to our perspective is no doubt the study of so-called "fear appeals" (e.g., Gleicher & Petty, 1992; Janis, 1967; Leventhal, 1970; McGuire, 1969; Rogers, 1983; Sutton, 1982), which are intended to induce a specific emotion, fear, through a threatening message. However much research on fear appeals often presupposes a questionable equation between "fear" and "threat", which makes it hard to distinguish persuasion through fear arousal from any form of "threatening" argumentation (see Witte, 1992). In other words, where is *fear* in such appeals? What is the difference between a "fear appeal" and, say, an "argument from negative consequences" (e.g., Walton, 1996b)? To avoid misunderstanding, we are not claiming that, for a fear appeal to occur, fear should be *actually aroused* in the addressee. (This may or may not happen depending on a variety of factors, including accidental circumstances.) We

are just claiming that, for a fear appeal to occur, the arousal of fear should be explicitly *planned* by a persuader. This implies, as we are going to show, a constitutive difference between the planning typical of persuasion through emotional arousal and the planning typical of other persuasion strategies.

We are now ready to provide our definition of *persuasion through arousal of emotions:* In persuasion through arousal of emotions, *P's intention to modify R's beliefs or their strength is a means for P's superordinate goal (super-goal) to arouse an emotion in R, which in turn is a means for P's further super-goal to generate a goal in R, and then an intention instrumental to it.* For instance (see Fig. 3) supposing P's saying to R "John is very smart, much smarter than you" is meant to provoke R's envy,[2] this aroused feeling should generate (according to P's planning) R's goal that John suffers some harm and induce, as a means for it, her intention to deny John a favor.

Generation of R's intention: *To deny John a*

↑

Generation of R's goal: *John suffers harm*

↑

Elicitation of R's emotion: *ENVY*

↑

Change of R's beliefs about her qualities/skills (in comparison with John's)

↑

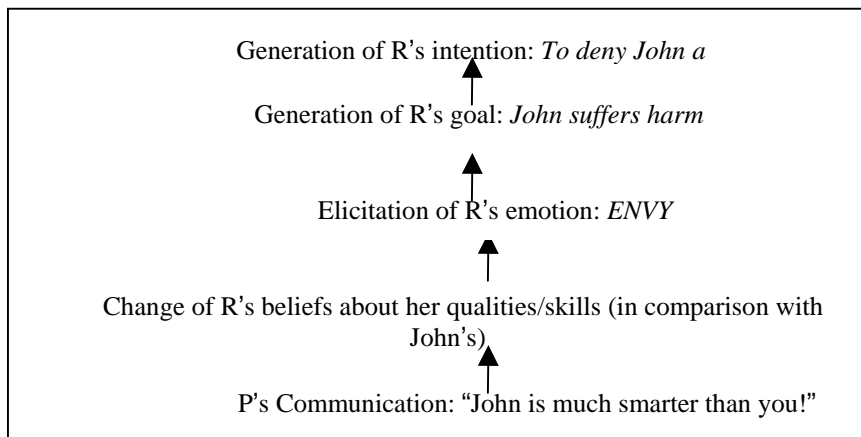P's Communication: "John is much smarter than you!"

Fig. 3: An example of persuasion through emotional arousal

What is the difference between inducing goals (and then persuading) through mere beliefs and inducing goals through *emotion-arousing* beliefs? Beliefs cannot generate goals by themselves alone. A belief can only *activate* a pre-existing goal. It is the pre-existing goal which, in interaction with the belief, can *generate* a sub-goal. Suppose I learn that tomorrow there will be shortage of water. This belief will activate my pre-existing goal "to have water", which in turn will generate my goal "to stock up on water" as a means for it. The cognitive activation of goals is in fact strictly related to the typical planning and reasoning procedures about goals, means, and enabling conditions. By contrast, if a belief arouses an emotion, the latter can directly *generate* a goal, independent of any planning and reasoning, i.e., independent of any *represented* means-end relation between the generated goal and some other pre-existing goal. Supposing that the belief that "John is more intelligent than I am"

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[2] Actually, unfavorable social comparison is just one precondition for the arousal of envy, which, as we will show, requires a number of other important cognitive and emotional ingredients (see further on in the text).

arouses my envy towards John, this emotion is able to generate by itself the goal that "John suffers some harm". True, as already noted, such a goal is *functional* to a more general goal of "not being less than John", but this means-end relation is not (necessarily) represented in my mind, and in any case it is not the *motive* why I want that John suffers some harm. If I envy John, I want this for its own sake (because of my envious ill will against John), not as a means for not being less intelligent than John. Thus, unlike the purely cognitive activation, the emotional triggering of goals is a form of *direct generation* of goals. [3]

The advantages offered by such persuasive strategy stem from the immediate motivating force typical of emotions. A goal which is generated independent of any planning and reasoning, in fact, is less likely to undergo scrutiny or evaluation of its actual value as a means for other superordinate goals, as well as of its costs or side-effects. In our example, R would feel (according to P's planning) this "urge" that John suffer some harm, regardless of any careful evaluation of its instrumental relationship, or of its possible interference, with other goals, and would be ready to profit by any opportunity to satisfy it (through some intention *p* such as that of denying John a favor, which P, on his part, would be ready to suggest!).

However, the strategy also presents a number of possible drawbacks. To start with, emotions, when unpleasant, may favor some form of resistance. As shown for instance by research on fear appeals (e.g., Hovland, Janis, & Kelley, 1953; Janis & Feshbach, 1953; Janis & Mann, 1977), defensive avoidance – implying the receivers' inattention to the fear-arousing message or their further suppression of any thought regarding the threat – is a common reaction. The experience of a negative emotion may in fact foster emotion control processes (which in the case of fear are very likely when the receiver has low self-esteem, lacks coping skills, and is very anxious; see Rosen, Terry, & Leventhal, 1982).

Moreover, persuasion through arousal of (either positive or negative) emotions may be perceived as particularly *unfair* by R, if she detects or suspects that P is "playing" with her emotions. In fact, persuading through emotional arousal is like playing a game by violating its rules, or using uneven weapons. Since it triggers goals in a more compelling and uncontrollable way than plain reasoning, it may be seen as unfair and manipulative in itself. What we have already observed about *reactance* is particularly relevant to this kind of persuasive strategy. Emotions are viewed and experienced as subjective, spontaneous, and endogenously produced reactions.

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[3] It might seem that, precisely for this reason, the principle of goal hooking does not apply to persuasion through arousal of emotion. In fact, if the motivating goal (in our example, the goal that John suffers some harm)

Moreover, they are perceived as hardly controllable by the experiencing person. If R suspects that P is trying to influence her through emotional arousal, she perceives a very serious threat to her freedom, because P is "using" her spontaneous and hardly controllable feelings in view of some strategic end. (Even when R considers such end to be in her own interest, she may be deeply disappointed by P's strategy, because in any case P has resorted to a means (R's emotions) which is unlikely to be under R's conscious control, and threatens her "freedom to feel".)

Further, persuasion through emotional arousal is a risky strategy because often there is no one-to-one relationship between emotions and goals. That is, an emotion may arouse more than one kind of goal. More precisely, the goal generated by a certain emotion is often so general and high-level that it can "instantiate" a variety of more specific goals, depending on contextual as well as personality factors. For instance, suppose P tries to arouse R's shame about her shape so as to generate R's goal of "saving face" and induce, as a means for it, R's intention p to lose weight. The goal of saving one's face, once generated, may actually favor either one's active attempt at obtaining more positive evaluations of oneself from others (and in this case intention p to lose weight would be a suitable means) or one's attempt at avoiding exposure to others' evaluation (by avoiding social interaction). Therefore, P's persuasive plan, that aims to induce p in R, may actually obtain quite a different outcome.

Finally, it is often hard to identify the differences between "germane" emotions (e.g., anger vs. indignation; envy vs. emulation). This bears important consequences in persuasion through emotional arousal. A persuasive message aimed to arouse, say, emulation may happen to arouse envy. These emotions (as we are going to argue) share many components, but are likely to generate *different* goals: whereas emulation induces a "self-enhancement" goal, envy induces an "other-diminution" goal. Such considerations point to the crucial role played in persuasion through emotional arousal by P's knowledge of the basic components of emotions and their interrelations, as well as of R's dispositions and personality.

5.   An Example of the Persuader's Theory of Emotions:

Emotions arising from Sense of Inferiority

As Marcus Tullius Cicero already argued, emotional persuasion requires "a thorough acquaintance with all the emotions with which nature has endowed the human race" (Cicero, *De Oratore*). Let us suppose that P wants to arouse either envy or emulation in R, in order to have R generate, respectively, an "other-diminution" goal or a "self-enhancement" one, and then some intention p instrumental to the generated goal. First of all, P should have a more or less explicit theory of such emotions. This theory may provide the building blocks for a computational model of P's reasoning aimed at assessing the emotions that are likely to be aroused in a given context, together with their presumable consequences. In this model two agents are involved: E (either the "Envier" or the "Emulator") and A (the "Advantaged Other"), and the following components of E's state of mind are represented:

a. *E's beliefs about the state of the world* φ : (Bel E φ), where φ may denote:

- the ownership of an -abstract or concrete- object or quality x by an agent (be it E or A): `Has(E x)` or its negation,
- E's ability to come to hold it in a more or less near future: `CanEvHave(E x)` or its negation,
- some relationship between E and A, either generic: `Similar(A E)` or related to x: `InferiorTo(E A x)`,
- the responsibility about the specific relationship occurring between E and A, related to x: `CauseOfInferiority(E A x)`;

b. *E's desires or goals about the state of the world* ψ: (Goal E ψ), where ψ may denote:

- again, the ownership of x by E: `Has(E x)`,
- a relationship between E and A, either related to x:¬`InferiorTo(E A x)`, or generic: `EqualTo(E A)`.

c. *E's feeling of an emotional state:* (Feel P ε), where ε may denote, for the emotions we are considering, the following states:

- being hopeful about x: `Hopeful(E x)`
- being hopeless about x: `Hopeless(E x)`,
- being hostile towards A: `Hostile(E A)`,
- suffering because of a sense of inferiority towards A: `SufferingInferiority(E A)`.
-

Let us now sketch a basic cognitive "anatomy" of envy and emulation, respectively. (For a more detailed treatment of these emotions, see Miceli & Castelfranchi, 2007.)

5.1. Basic cognitive components of envy

According to a mild notion of envy, Agent E (the "Envier") envies another agent A (the "Advantaged other") if:

(a) E wants something (any type of object or state of affairs, from material goods to spiritual gifts, from social positions to psychological states), and

(b) E believes that A already has that "good", whereas

(c) E does not have it, and suffers from this lack.

In addition, there is some good reason to suppose that huge differences in well-being are less likely to induce envy than minimal ones, which are typical of peers. As Aristotle (1991) already observed, we envy those who are "close" to us in terms of time, space, age and reputation. Schoeck (1969, p. 62) accordingly stresses that "overwhelming and astounding inequality… arouses far less envy than minimal inequality." Also Ben-Ze'ev (1992) believes that *slight* differences in social status might foster envy, and describes an egalitarian society such as the kibbutz in which he supposes the frequency and intensity of envious comparisons were likely to increase.

The social comparison literature (Festinger, 1954; Goethals & Darley, 1977; Wheeler, Martin, & Suls, 1997; Wood, 1989), stressing the tendency to compare oneself with *similar* others, lends indirect support to this view. Therefore, to the above mentioned basic ingredients, one might add

(d) a "perceived similarity" component.

So far, then, our cognitive anatomy of envy implies the following components:

```
Goal E Has(E x); Bel E ¬Has(E x); Bel E Has(A x);
Bel E Similar (A E).                                    (1)
```

However, the previous analysis seems still insufficient to account for envy proper. In fact, it may account for the existence of a mere unfulfilled goal or desire of E's, complemented by E's comparison with A. In other words, mere greed or craving for a certain "good" might account for this state of affairs, with the specification that the craving has been instigated, favored or increased by the sight of that good in a similar other. This is not yet envy proper.

Parrott and Smith (1993) point to an important feature of envy: E's wish that A *loses* the desired good. However, also this wish by itself is not sufficient to account for envy. Suppose that A's losing x increases the likelihood of having it for E: this is what happens in mere *competition* for scarce resources, where one's success implies another's failure. By contrast, envy may arise independent of such conditions: One may envy another his new car, for instance, even though there are innumerable identical specimens in existence. More importantly, E's wish that A loses the envied good often doesn't increase the likelihood of having it for E. And still, E is very likely to harbor such a wish.

This feature is very informative about the real object of envy, because it indicates that what characterizes envy is not E's mere lack of x, but E's perceived *inferiority* to A. Any disadvantage between two people can in fact be filled by either the disadvantaged party's acquiring the lacking good or the advantaged party's losing it. This is why E harbors the wish that A loses x (especially when the former option is viewed as unlikely). Thus, the specific good (or goal) is often a mere opportunity for social comparison. It is not the mere fact of not having x what matters to E, but the fact of being inferior to A. The real object of envy is not a given x, but superiority, or better non-inferiority. Thus, as a consequence of her comparison with A,

(e) E comes to believe she is inferior to him (From now on, we will refer to E as a she, and to A as a he). Such a belief, coupled with

(f) the opposite goal of not being inferior to A (which, as a consequence, has been thwarted), in turn implies that

(g) E suffers because of her perceived inferiority to A, that is, some emotional consequence is added to the mere belief of inferiority. Therefore, we have to add such components of envy to the previous ones:

```
Bel E InferiorTo(E A x);  Goal E ¬InferiorTo(E A x);
Feel E SufferingInferiority(E A).                        (2)
```

Are all the "premises" above sufficient to account for E's envy towards A? Sense of inferiority is no doubt necessary for envy to arise, but still insufficient to account for the "full-blown" feeling of envy. If E's sense of inferiority limits itself to provoke discontent, depressive feelings and a lowered self-esteem in E, without any special negative feeling towards A, we don't have envy proper. Actually, there is a weak notion of envy, which consists essentially in the ingredients above. This is called "good" or "benign" envy, as distinct from "malicious" envy (Farrell, 1989; Neu, 1980; Roberts, 1991; Taylor, 1988; Young, 1987), and can be readily confessed (e.g., Heider, 1958). A declaration of such envy to the addressee conveys a sort of appreciation of the person and their achievements: "I envy you" is better translated into "I would like to be in your shoes because I regard what you have (or are) as valuable". By contrast, "malicious" envy, or envy proper, implies something more: E should orient (either consciously or unconsciously) her attention towards A, and (h) assume A to be the *cause* of her inferiority ("if it weren't for his superiority, I would not be inferior"), and (i) feel ill will or hostility towards A.

To avoid misunderstanding, it should be stressed that this mental scenario does not imply E's experiencing a sense of injustice, because the latter should entail E's attribution of *responsibility* proper to, and blame on, A, which is not necessarily implied here. In fact, A can be perceived as the mere *cause* of E's suffering. One might ask why a hostile or angry reaction should result from one's mere focusing on the advantaged other as the cause of one's own inferiority. The elicitation of anger is here simply related to external attributions for one's perceived failure (in envy, inferiority). In fact, the perceived controllability or the intentionality of the outcome are not strictly necessary antecedents of an angry reaction. What can be viewed as necessary are the motivational relevance of the outcome, its inconsistency with the person's goals, and the "other-accountability" of the outcome (where accountability does *not* necessarily overlap with responsibility proper and blameworthiness; see Smith and Lazarus, 1993). Thus, we add the following components of envy to the previous ones:

```
Bel E CauseOfInferiority(A E x);  Feel E Hostile(E A).      (3)
```

Such ill will in turn implies E's goal that A not achieve (some of) his goals (not necessarily limited to the original having x). Though sometimes E may confine her aggressive goal to A's losing x, this is not necessarily the case. More generally, what E wishes is A's disadvantage, which can be instantiated in a variety of possible failures of A's goals (also depending on opportunities offered by contextual factors).

The previous analysis is still incomplete. A further necessary ingredient of true envy seems to be E's negative expectations about overcoming her inferiority. If such expectations are positive, envy is likely to be weakened, and possibly change into emulation (see later on), whereas envy will persist in the case of negative expectations. In fact, ill will is sustained by one's helplessness and hopelessness. In other words, if E is hopeless about overcoming her inferiority (because she believes she is unable to obtain x or restore the power balance in some other way), she is left with her ill will against A. Conversely, if E were confident to overcome her inferiority, she would put her efforts in trying to meet A's standard. Research on the

different effects of upward social comparison (e.g., Buunk, Collins, Taylor, VanYperen, & Dakof, 1990; Lockwood & Kunda, 1997; Taylor, Wayment, & Carrillo, 1996; Testa & Major, 1990) in fact shows that if the standard's position is perceived as unattainable, the comparer perceives himself or herself as hopelessly inferior to the standard, and is likely to experience discouragement and self-deflation, and possibly envy. Conversely, if the standard's position is perceived as attainable, the comparer is likely to experience self-enhancement and inspiration and encouragement to strive for it. Therefore, we should add these further components – namely: (j) E's belief that she cannot obtain x eventually, and (k) E's consequent feeling of hopelessness:

```
Bel E ¬CanEvHave(E x);Feel E Hopeless(E x)              (4)
```

At this point, from both E's hopelessness and her ill will against A, we can derive E's aggressive goal that A suffers some harm, that is that (some of) A's goals are thwarted, which we might generically represent as follows:

```
Goal E ¬Has (A y)                                       (5)
```

provided that E believes having y to be one of A's goals (and y might even coincide with x, as it happens in some instances).
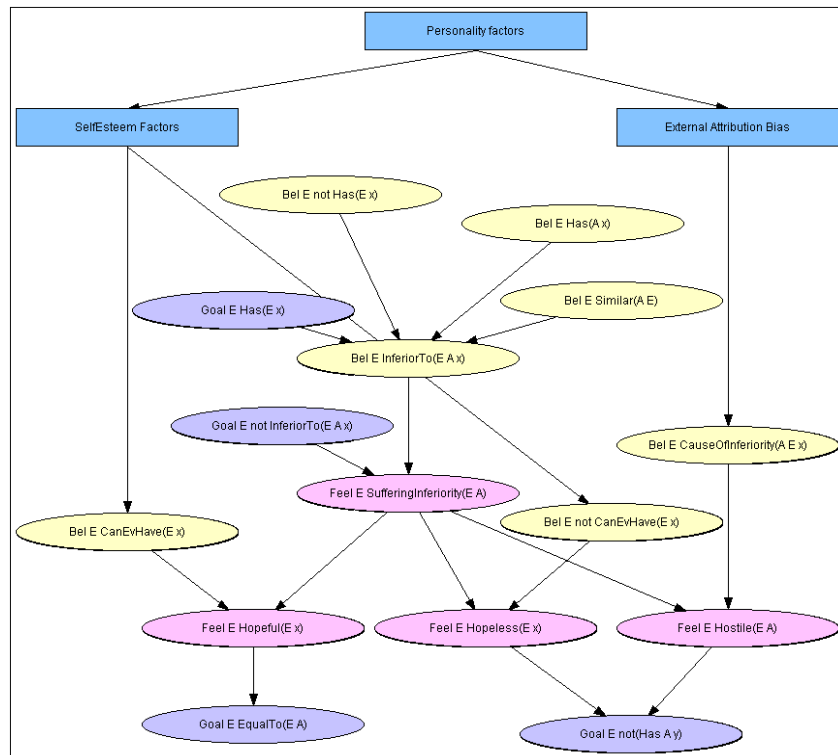

Fig. 4: Tracing of the reasoning steps followed by the persuader

Therefore our final anatomy of envy implies the components described in (1) to (5), whose interrelations are illustrated in Figure 4.

5.2. Basic cognitive components of emulation

Emulation shares with envy the unfavorable comparison and the related sense of inferiority. In other words, the components in (1) and (2) are common to the two emotions. However, emulation implies some remarkable distinguishing features. First of all, in emulation there is no hostility towards the advantaged party. The latter is not perceived as a cause of one's own inferiority, but as an example to follow (and possibly surpass), and one's present disadvantage is viewed as a challenge rather than a threat for one's self-esteem. This perception of one's own disadvantage as contingent and surmountable can be traced back to one's own efficacy beliefs. That is, in emulation one feels that the lacking good is within one's own reach; thus one feels capable of overcoming the present disadvantage. Therefore, we can add the following distinguishing components to the previous ones:

```
Bel E CanEvHave(E x);    Feel E Hopeful(E x).
```

In fact, whereas envy implies E's helplessness and hopelessness about the possibility of overcoming her disadvantage -which favors and sustains her ill will against A- in emulation one's efficacy beliefs, together with the suffering implied in the (contingent) sense of inferiority experienced, provide the driving force for the emulative motivation, which we might generically represent as a goal to surmount one's disadvantage, thus reaching (at least) equality with A:

```
Goal E EqualTo(E A)
```

As already emphasized, upward social comparison is likely to exert positive effects on one's self-view when the disadvantaged party believe they are able to reduce the discrepancy. Perceived attainability of comparable success makes the crucial difference: "The realization that one is currently less successful than another may lose its sting if it is accompanied by the belief that one will attain comparable success in the future" (Lockwood & Kunda, 1997, p. 93). The advantaged person's success comes to play, as already observed, a self-enhancing and "inspiring" role, also providing useful suggestions about strategies to learn and tasks to accomplish with the view of obtaining a similar success.

As pointed out by Smith (1991, p. 96), "understanding why some individuals can use unflattering social comparisons as a basis for more constructive, emulative impulses, whereas others seem overcome by destructive, hateful feelings, is an important social-psychological problem". We believe that the comparison between envy and emulation bears important implications for persuasive and educational strategies. When attempts are made to favor high achievement motivation through social comparison and competition, special care should be taken that what is instigated will be emulation rather than envy. In fact, whereas emulation implies the goal to improve and enhance oneself, envy may favor, through ill will, the goal or wish that the envied be harmed. Envy tries to achieve equality through the other's

diminution rather than one's own enhancement. The method of self-protection typical of envy "is that of *undercutting* the other person. If we redouble our own efforts because we are shamed by a rival's attainments, we are not considered to be envious… we are… indulging in virtuous emulation" (Silver & Sabini, 1978, p. 108). Farber (1966/2000) remarks that "by demeaning the envied one and aggrandizing the envier, envy attempts to redress inequality without the risk of intervening effort or development. In this way, envy opposes change, enforces the status quo, and is inimical to learning" (p. 242). In order to induce an emulative motivation through a painful comparison with the better off, it is necessary to favor the efficacy beliefs of the target of one's persuasive strategies. Even when starting with envy, one might change it into its noble sister, emulation, by revising one's own efficacy beliefs.

5.3.   Reasoning on the Receiver's Mental State, in Envy and Emulation

As already noted while discussing the basic principles of persuasion (Section 3), being endowed with some general knowledge of the emotions to be aroused is just one of the prerequisites P should satisfy if he aims to persuade R through emotional arousal. In fact P should also be able to apply such a general knowledge to the specific receiver of his persuasive message, which implies reasoning on R's mental state and situation, and being able to evaluate whether a certain emotion (with the consequent goal it tends to generate) is likely to be aroused in R. In applying his general model of emotion elicitation to R, the latter will take the role of E. As "germane" emotions are at stake, P should make sure to arouse in R the "right" one – the emotion which will generate that goal P is interested in, that is, the goal which might act as a motivation for the specific intention P wants to induce in R. The specific knowledge of P about R will include second-order beliefs about:

(a)   R's goals and wishes, possibly those important to her: e.g., P believes that x is desirable for R;

(b)   R's power comparison with a third person A: A's possessing x/obtaining x versus R's lacking it;

(c)   R's beliefs and feelings about this power comparison and its consequences, with special reference to R's comparative self-evaluation (R's sense of inferiority to A) and self-confidence about her capability to obtain x or overcome her inferiority in some other way;

(d)   R's possible feelings towards A (either hostility against the cause of her inferiority or mere consideration of A as an "inspiring" example to follow and possibly surpass).

As one can see, here some knowledge about R's personality is at stake, which is very likely to exert a remarkable impact on the success of P's persuasive attempts. Such knowledge can be either derived by P's personal relationship with R, and thus be fairly detailed and analytical, or it can be based on P's recognition in R of a few basic traits, from which it is reasonable to infer a number of more specific attitudes and dispositions. Let us consider Figure 4 again: if, for instance, R shows a low self-esteem, P can reasonably infer a strong tendency to social comparison on R's part, as well as R's overreliance on social comparison to assess her self-worth (see e.g.

Wayment & Taylor, 1995). The more R's low self-esteem is seen as global and enduring, the more it is reasonable to infer a sense of inferiority (stemming from the disadvantageous comparison) which is associated with helplessness and hopelessness (e.g., Abramson, Seligman & Teasdale, 1978; Epstein, 1992). From R's helpless and hopeless sense of inferiority P can reasonably expect R's resort to self-serving biases, in particular the attributional bias, according to which one's failures are likely attributed to external causes whereas one's successes are attributed to internal causes (e.g., Miller & Ross, 1975). Finally, from R's external attribution for her failure (inferiority) P can reasonably expect R's consequent hostility against the cause of such failure, if that "cause" happens to be another agent. Conversely, from R's high self-esteem, especially when stable, it is reasonable to infer R's sense of self-efficacy and hope to overcome her inferiority, because her global feeling of self-worth is unlikely to be affected by contingent negative outcomes or disadvantageous comparisons (e.g., Kernis, 2005).

The Persuader's beliefs about R's mental state and dispositions are second-order beliefs, mainly constituted by hypotheses on R's mind, and therefore they are typically uncertain and incomplete. They can be organized in an oriented graph, whose root-nodes regard P's beliefs about R's beliefs and goals in a given context, whereas the leaf-nodes regard the aroused emotions, and the goals generated by such emotions. The intermediate nodes represent the intermediate cognitive steps in the process of emotion arousal. The graph in Figure 4 can be viewed as a sketchy representation of the cognitive elements conducive to the emotions of envy and emulation, and of their interrelations. It shows that the common root of both envy and emulation is suffering because of a sense of inferiority arising from a disadvantageous

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predictive kind of reasoning aimed at assessing the emotion that will likely be aroused in the given context, with its presumable consequences.

6.   Emotional-Non Emotional versus Central-Peripheral (or Systematic-Heuristic) Strategies

As already mentioned, there are both similarities and differences between our emotional-non emotional dimension and the central-peripheral or systematic-heuristic ones. To start from a basic similarity, our *persuasion through emotional arousal* is a clear case of a strategy which acts on R's "peripheral" or "heuristic" mode of thinking, because of the non-reasoned and "automatic" quality of the goal generated by the emotion aroused.

However, *our persuasion through appeal to expected emotions*, being a particular form of argumentative persuasion, shows no peripheral or heuristic connotation: in fact, it acts on R's central or systematic mode. This amounts to saying that, in our view, the possibile analogy between "emotional", on the one hand, and "peripheral" or "heuristic", on the other hand, is limited to *persuasion through emotional arousal*.

Moreover, the overlap between "emotional" and "peripheral" or "heuristic" is not complete for a second reason: not every peripheral route necessarily involves the arousal of emotions. The dual-process theories of persuasion consider many *non* emotional "cues" people use for judging the validity of persuasive messages: for instance, the expensiveness of a resource as a cue of its value; or social consensus on some opinion as a cue of its validity. Actually, such cues are in a sense akin to typical "rational" arguments. Compare, for instance, social consensus as a cue of the validity of a certain choice with the "argument from popular practice" (Walton, 1996b), which assumes precisely that, if a large majority of people do something, they probably believe that doing this is right; and, if something is generally considered as right, doing it corresponds to a prudent course of action. The only (crucial) difference between such cues and true arguments is that the former are schematic, non-effortful, automatic, etc. They constitute pre-fabricated, "frozen" heuristics which are mindlessly applied to a given context.

Finally, according to the elaboration likelihood model (e.g., Petty & Cacioppo, 1986; Petty, Cacioppo, Kasmer & Haugtvedt, 1987), the two "routes" to persuasion are mutually exclusive, that is, they cannot be followed at the same time. However, the heuristic-systematic model (e.g., Chaiken, Liberman & Eagly, 1989; Chaiken & Maheswaran, 1994) assumes that, under certain conditions (for instance, when systematic processing does not contradict the judgmental implications of heuristic processing), they can co-occur. Actually, we view the mingling and intertwining of emotional and non-emotional strategies *in the same* persuasive attempt as possible, and even likely. In particular, we view it as possible to rapidly shift from one "route" to the other.

Consider persuasion through arousal of emotion: we have stated that, once an

emotion has been aroused in R, it generates a goal, regardless of any reasoning and planning on R's part. However, what *precedes* emotional arousal, as well as what *follows* goal generation, can be object of reasoning and planning.

Let us start from what might precede the emotional arousal. We suppose that P can arouse R's emotion through argumentation. For instance, in order to arouse R's envy towards A, P can start arguing in favor of the valuableness for R of a certain resource or condition x (say, "being in good shape"), which R lacks; P can then compare R with A, explain that A is on advantage over R because of x, and say (and even demonstrate) that R is unable to obtain x, thus reaching A's standing: "Yesterday I met Jane: she is really in good shape! It's unbelievable: at the primary school, you were quite akin, but now… It's a pity, but it's practically impossible to fill the gap". All of this (and much more) can be made in quite a systematic mode, through sound and convincing arguments, and R may come up to be persuaded of her helpless inferiority to A. Also, P can try to instigate R's ill will against A by stressing how bothering it is to see that some people (like Jane) enjoy beauty and health, whereas others (like R) are treated so badly by Mother Nature. Supposing that P succeeds in his endeavor, R will envy A, and this feeling will generate (without any reasoning and planning) the goal that A suffers some harm.

Now, let us see what follows goal generation by first considering R's mind. Though the goal that A suffers some harm has been generated in R's mind regardless of any evaluation of its instrumental relationship (or of its possible interference) with other goals, this by no means prevents R from reasoning and planning in view of its achievement. That is, the goal is not represented as *instrumental* to other goals, but, as any other terminal goal, it may be the end-goal of a plan, which can be worked out even with sophisticated reasoning and cunning. In our example, once this "urge" that A suffers some harm is felt by R, the latter may be ready to start such reasoning (about, say, A's interests, concerns, goals, and enabling conditions) and planning (to thwart some of A's goals).

At this point, P may use again some argumentative tools to suggest some suitable means for R's planning. We should in fact remember that P is not interested in R's generated goal per se, but rather he wants to act on it as a *motivator of a specific intention* he wants to induce in R. Thus, P is interested in R's intention to do a specific action or plan. P may either share R's goal that A suffers some harm or have some other goal of his own, which R's behavior can (contribute to) satisfy. Let us suppose that P's end-goal is to receive R's help to prepare for an exam (because R is a very clever student), and this goal is at present quite difficult to achieve because A (Jane), who is R's customary studying companion, does not like P to join them (or so P assumes). Thus, P has some good reason to suggest the following means for R's goal to damage A: to deprive A of R's company and help in studying. This may be accomplished with some malicious insinuation, like: "But it is unlikely that Jane is able to get ahead in everything! She too should have some weak point… I bet that if she were not studying with you, she would meet with serious difficulties at school…".

7. Concluding Remarks

We have presented a model of persuasion which takes the Persuader's perspective, and focuses on P's theory of the Recipient's mind, and on P's planning for influencing R. Rather than directing our analysis on how information is actually processed by the Recipient, we have addressed how the Persuader consciously plans to communicate so as to induce the Recipient to process the conveyed information. In particular, in describing what we see as the two main forms of emotional persuasion (persuasion through appeal to expected emotions and persuasion through arousal of emotions), we have tried to show that, even when emotional persuasion strategies are applied, this requires a careful, context-sensitive and rational planning of the strategy to apply, on the side of the Persuader.

Reasoning is the first step of any persuasion attempt, or any form of "practical argumentation", to use Walton's terminology (e.g., Walton, 1990). In the kind of planning we have described, the Persuader builds a model of the Recipient's mental state that is based on his general theory of mind and personality: a theory of how emotion arousal is affected by beliefs, goals and personality traits and how, once aroused, emotions may in turn influence various aspects of R's mental state. P uses this general model in a "what-if" reasoning mode, to predict the possible -emotional and non emotional- consequences of a given communication. Specific knowledge about the Recipient (her characteristics and dispositions) is introduced in the model as "evidence" available, and the consequences of propagating this evidence in the model are "observed". Of course, this kind of reasoning is presumptive and plausible; we did not describe in this paper how we propose to deal with the various forms of uncertainty that may influence its results: for this particular aspect, please refer to Carofiglio et al. (in press).

As also pointed out in Walton (1990), reasoning is only the first step of the persuasion task: once a strategy has been selected, the persuader has to translate it into a good "persuading text". In fact, on the one hand, a text may fail to be persuasive as a result of the weakness or erroneousness of the selected persuasion strategy: typically, because the Persuader's hypotheses about the Receiver were not correct. In our example of emotions arising from sense of inferiority, self esteem factors and attribution biases are the starting assumptions that make the difference between inducing envy or emulation: hence, an attempt to activate a goal of emulation by, e.g., saying: "Yesterday I met Jane, she is really in good shape!" may fail just because P's assumptions about R's self esteem were wrong. On the other hand, however, even a persuasion attempt which is grounded on P's "correct" reasoning may fail because its translation into a text was improper. If compared with the richness of human persuasion messages, the examples we included in this paper suggest how difficult it is to generate a "good" text: the strategy must be instantiated into a "discourse plan" in which the items to mention, their presentation order and the rhetorical relations among them have to be carefully established. The plan has then to be translated into a natural language message, implying a phase of "surface

generation", in which careful choice of the syntax and wording of sentences must be applied (Mazzotta et al, in press).

Some suggestions on how this task may be accomplished are already available: a variety of "argumentation schemes" have been proposed, that formalize the structure of an argumentation text in terms of premises and conclusions (Walton, 1996b). In other studies, a set of rhetorical relations that may be employed to strengthen internal consistency in these texts has been proposed (Kibble, 2006). However, these schemes mirror the prevailing attention towards forms of "legal" or "rational" argumentation and persuasion. In our view, much work has still to be done, and reflection on the role of rhetorical relations, to extend this list to the two forms of emotional persuasion we consider in this paper.

Particular attention should be paid to the problem of which part of the reasoning process can -or should- be omitted from the persuasion text. For example, not all the nodes in the reasoning diagram displayed in Figure 4 should enter the discourse plan. To start with, some of them may be omitted for sake of simplicity and understandability of the message: for instance, sentences representing some of the intermediate nodes in this diagram. This corresponds to the classical view of enthymemes as "propositions not explicitly stated in the text of discourse, even though it may be clear enough that the speaker was relying on it, or including it, as part of the argument" (Walton, 2001): typically, common knowledge, known positions of the speaker, etc. In those cases, the speaker assumes that the receiver will likely fill those gaps, and that this will increase the intelligibility and strength of the persuasion message.

However, things are probably more complex than that, especially in emotional persuasion. In this case, as we said, accepting a suggestion is not the direct consequence of *accepting all the premises of the reasoning* followed by the Persuader. As Weaver (1967) already pointed out, "the missing proposition of an enthymeme is sometimes suppressed because the maker of an argument knows that, if we look carefully at his premises, we may question or reject some of them". Weaver goes on observing that much advertising, as well as a considerable part of political argumentation, is presented in the form of enthymemes for just this purpose. Walton and Reed (2005) also acknowledge that dialectical factors are involved in the use of enthymemes. In particular, in the context of a critical discussion, an arguer "will try to use premises that the audience accepts" (p. 342). This leaves room to the possibility that the arguer also tries to *select*, among the available premises, the most "agreeable" ones, and conversely tries to conceal the less "agreeble" ones, especially if weak or questionable in themselves.

We view persuasion through arousal of emotions as one of the exemplary cases in which enthymemes take the lion's share. They play a substantial role precisely because here some of the elements of the reasoning process are not only likely to be omitted, but *should* be omitted from the argumentation message, to avoid failing of the persuasive attempt. As we said in Section 3, the suspicion of manipulation is a powerful instigator of resistance to persuasion by the Recipient, which may favor her counterarguing and a final strengthening of her original attitudes. Persuasion through

arousal of emotions may be perceived as such a form of manipulation, and therefore as *unfair* by R, if she detects or suspects that P is "playing with her emotions". Generation of an argumentation text in which this form of reasoning is applied by P should carefully take this risk into account, and argumentation schemes should be defined accordingly. We would suggest the role of enthymemes, and related problems, as one of the objects of future research on emotional persuasion.

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