RESEARCH ARTICLE

I Think Therefore I Am (Influenced): Perceptions of Social Influence on Self and Others

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This research focuses on people's perceptions and explanations of majority and minority influence, and on the socio-cognitive processes that underlie them. Two experimental studies (Ns = 89, 139) examined the effects of source status (majority vs. minority) and message quality (strong vs. weak arguments) on perceptions of influence on self and others, explanations for this influence and message elaboration. An estimation of potential (and actual) influence on self and other recipients was examined and an expected bias in perception was evident, others were thought to be influenced more than the self (i.e. a third-person perception). These perceptions depended on the greater message elaboration instigated by a minority (vs. majority) source. The reasons people offer about the potential (or actual) influence were also examined – in particular, people's thoughts about the influential message and source's status (i.e. the information that they receive a message by a majority or a minority influence). Results showed that thinking as an explanation of influence is more important for a majority (vs. a minority) message and this does not depend on actual cognitive elaboration but rather on self-serving processes. Overall, the results show that thinking as an underlying process of, or as an account for, influence is differentially connected with majority and minority source. These findings contribute to our understanding of perceptions and explanations of social influence and of their underlying socio-cognitive processes.

Introduction

Social influence research has illuminated the effects of majority and minority messages on people's attitudes and thoughts as well as the socio-cognitive processes underlying these effects (for reviews see Martin & Hewstone, 2010; Mugny & Pérez, 1991; Papastamou, Gardikiotis & Prodromitis, 2017). However, little is known about what people think of social influence itself, whether they estimate actual (or potential) majority and minority influence on themselves and others and how they explain these effects. A number of research questions arise out of this gap. Do people assume that a majority (vs. a minority) message can differentially affect themselves and other recipients? Previous research suggests that people generally make such estimates in particularly biased ways (e.g. they overestimate influence on others compared to themselves, what is described as the third-person effect, Davison, 1983), but no previous research has examined this in a social influence context. Also, what are the reasons people provide to account for the potential and actual influence on themselves and others? When people try to explain conformity, previous research has shown that they attribute influence on themselves to internal

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factors, such as thinking, while they attribute influence on others to external factors, such as pressure from their social environment (see Pronin, Berger & Molouki, 2007). Finally, what are the socio-cognitive processes that underlie the perceptions of actual and potential majority and minority influence and the explanations provided for this influence? Relative explanatory mechanisms and theoretical accounts from social influence research will be useful here.

This paper begins with a selective review of majority and minority influence research, particularly focusing on the underlying socio-cognitive processes that are of main interest in the present studies (and necessarily neglecting other parts of social influence research). A main goal of the present study is to focus on the processes underlying perceptions and explanations of influence and especially on the cognitive elaboration that accompanies them.

Theoretical Background

Majority and minority influence and socio-cognitive processes. Moscovici's seminal conversion theory (1985) suggested that influence emanating from majorities and minorities usually leads to distinct outcomes through qualitatively different processes. Majorities lead to compliance via a comparison process (people do not want to seem different from the majority), whereas minorities lead to conversion via a validation process (people

evaluate and think closely about the merit of the minority message). Extending and developing conversion theory, Mugny and his colleagues (e.g. Mugny & Pérez, 1991; see also Mugny, Kaiser & Papastamou, 1983; Mugny, Ibañez, Elejabarrieta, Iñiguez & Pérez, 1986) have extensively elaborated on the relationship between the processes of comparison and validation. They suggested that people facing an influence source follow a comparison process where they evaluate the intergroup context and, if they think the influence source is an outgroup (as it is in the case for minorities), they will be motivated to distance themselves and reject minority's proposal. Mugny and his colleagues suggest that people dissociate the comparison and validation processes (Pérez & Mugny, 1989). This process of dissociation between the source and the message is possible when people acknowledge the conflict the minority is bringing about and accept the multitude of the positions proposed by various social entities (Mugny & Pérez, 1991).

These ideas were further developed in their conflict-elaboration theory (Mugny, Butera, Sanchez-Mazas & Pérez, 1995; Pérez & Mugny, 1996), which posits that against a minority, people will distance themselves from the source and an identification conflict will arise (what Pérez & Mugny, 1987, call indissociation). After they have settled the intergroup conflict (by distancing themselves from the minority), people then focus on the cognitive conflict and their attention on the minority's position (what Pérez & Mugny, 1990, call dissociation). As compared to majorities, conversion theory and conflict elaboration theory generally give precedence to minority groups in instigating more extensive thinking. This proposition, however, has not been accepted without criticism (see for example Mackie's 1987 position that majority leads to greater cognitive elaboration; see also Baker & Petty, 1994).

Martin and Hewstone (2008, see also Martin & Hewstone, 2003; Martin, Hewstone & Martin, 2007; Martin et al., 2008) reconciled previously conflicting results by proposing that both majority and minority can lead to more (or less) thinking depending on the cognitive demands of the influence situation. Most influence situations to which people are exposed are not characterized by very low or very high processing demands; rather, demands are located at an intermediate level. In this situation, Martin and Hewstone propose that conversion theory should apply (see also Mugny et al. 1995) – that is, extensive processing will underlie the minority arguments only (see Martin & Hewstone, 2003; Martin, Hewstone, et al., 2007). All in all, people are motivated to move toward the majority and away from the minority, but are more inclined to think more closely about the minority position because of its distinctiveness, consistency and active action (for a comprehensive review of the factors that affect minority versus majority groups, see Wood, Lundgren, Ouellette, Busceme & Blackstone, 1994; see also Crano & Hannula-Bral, 1994; Gardikiotis, 2011).

Perceptions of majority and minority influence. This brief review provides the theoretical context wherein the research questions about *perceived* majority and minority influence can be answered. We know little about people's perceptions of social influence; this is the focus of the present studies. Do people think that a majority (or a minority) message can influence them more or less, compared to other message recipients? While these questions have not been addressed in social influence literature (for an exception see Gardikiotis, 2010), there is relevant research in communication research (for a review see Perloff, 2009) showing that people estimate the potential impact a communication (usually an influential message) can have on their thinking and attitudes and compare it with the potential impact of the same message on other message recipients. It is well established that people think that other recipients (the third person) will be more influenced by the message than they will (the first person), a phenomenon described as the third-person effect (Davison, 1983). We expect that participants will think that others will be influenced by the influential message (irrespective of source status) more than themselves (Hypothesis 1), supporting the typical third-person effect (Perloff, 2009). Gardikiotis (2010) provided evidence for a third-person effect irrespective of majority or minority source status. Participants estimated that an influential message would influence other participants more than themselves, while source status (majority vs. minority) did not affect these perceptions.

A number of message characteristics have been shown to affect the third-person effect. Relevant to the present research is *message valence* and the positive or negative connotations it bears (Perloff, 1999). Communication conveying a negative connotation, such as a product advertisement, leads to the third-person effect, whereas communication conveying a positive connotation, such as a health campaign, can lead to the reverse phenomenon, namely, the first-person effect, in which perceivers may think that they themselves will be more influenced than other recipients (Duck & Mullin, 1995). Whether recipients assess the valence of the supported messages (i.e. conveying strong vs. weak arguments) is examined in the current studies. If people differentiate between strong and weak arguments (an indication of greater message elaboration), they will think that they will be more influenced than others by strong arguments. This pattern of findings will be more likely in the minority condition (Hypothesis 2), where people are expected to exert considerable cognitive effort to understand the minority's message (Martin & Hewstone, 2005; Moscovici, 1985; Mugny et al., 1995). So, when only majority and minority status is examined, it is hypothesized that participants will show the third-person effect bias (Hypothesis 1). However, when argument quality is experimentally crossed with source status, an interaction is expected: in this case, participants will differentiate strong and weak arguments only in the minority condition (Hypothesis, 2).

Explanations of (Perceived) Majority and Minority Influence

Another aim of this paper is to examine how people explain the potential or actual influence from an influential source. There is no research about people's explanations

of perceived majority and minority influence. Most relevant to this question are the studies by Pronin et al. (2007) that examined people's perceptions of conformity (broadly defined as what most other people do). First, they provided evidence that people see themselves as less susceptible to social influence (i.e. conformity) than others. This is a verification of the third-person effect (for conformity processes only). They also have examined the reasons people propose to account for their and others' conformity. Besides motivational reasons of self-serving bias, they suggest that cognitive reasons are at play. People overestimate their internal processes, such as their thoughts, feelings and motives in self-judgments of their behavior, whereas they rely more heavily on other people's behaviors to account for their intentions and states (Pronin, Gilovich & Ross, 2004; Pronin & Kugler, 2007). We expect that thinking will be proposed as a possible explanation for the influence on self more than the status of the source (behavioral information, in Pronin et al.'s terminology) (Hypothesis 3). Because thinking was proposed as a cause of influence for conformity (which can be seen as majority influence) in Pronin et al., we also expect that thinking will be proposed as a cause of influence to a greater degree for majority than minority influence sources (Hypothesis 4).

The present study furthers this research by directly manipulating message quality (see Martin & Hewstone, 2008; Petty & Cacioppo, 1986), so that the relation between actual thinking about the influential message and perceived thinking as a cause of influence will be examined. We make the assumption that if perceived thinking as a cause of influence depends on actual thinking about the influential message, then perceived thinking data will follow the results of actual message elaboration and be correlated with them. Because greater message elaboration is expected in the minority condition, a relationship is expected between thought listing data (in Experiment 2) and reporting thinking as a cause of influence (Hypothesis 5).

The Present Studies
The present studies examine the perception of potential majority and minority influence (Experiment 1); that is, participants estimate the potential influence a majority- or minority-supported message can have on themselves and others, and the actual majority or minority influence (Experiment 2). The perceptions of the causes of influence (thinking vs. source status) are examined in both studies. Perceptions of majority and minority influence have been conceptualized in three ways: perceived majority or minority influence on self (the degree to which people estimate that a majority or a minority message can affect their attitudes etc.), perceived majority or minority influence on others, and finally the comparative estimation of perceived majority or minority influence on self compared to others (i.e. influence on others minus influence on self).

Experiment 1
The first experiment examines how majority and minority influence on self and others is perceived and what kinds of causes are thought to be responsible for the influence on

self and others. Hence, the focus is on *potential* influence on self and others. Also, the underlying socio-cognitive processes are examined by manipulating argument quality of the message advanced by the source. The hypotheses tested are:

H1. Participants will think that other recipients will be more influenced than themselves by the message (Third-person effect hypothesis).
H2. Participants in the minority condition will think that strong (vs. weak) arguments will influence themselves more than other recipients.
H3. Participants will provide thinking about the message (vs. source status) as an explanation for the potential influence on themselves.
H4. These results will be greater in the majority condition.

Method
Participants and design. Eighty-nine students (53 females, aged between 17 and 24 years, mean age = 20.6) at a Greek University participated in the study. They were randomly allocated to one of the four experimental conditions of a 2 (source status: majority vs. minority) × 2 (argument quality: strong vs. weak) between-subjects factorial design. Five participants were excluded from the analysis owing to missing data.

Stimulus materials. The topic of the influential message was the "legalization of voluntary euthanasia," which has been used in previous studies (e.g. Gardikiotis, Martin & Hewstone, 2005; Martin, Gardikiotis & Hewstone, 2002). The text presenting a fictitious national survey of students on the topic of voluntary euthanasia comprised six arguments (strong or weak depending on the condition) against voluntary euthanasia. The strong and weak versions of counter-attitudinal messages were developed following conventional procedures (Petty & Cacioppo, 1986, p. 133. See also Martin et al., 2002; Martin & Hewstone, 2003). Source status was manipulated in the title and the text of the message by informing participants that "A majority of 82% (or a minority of 18%) of students was against voluntary euthanasia."

Procedure. After reading the instructions and providing their consent to participate in the study, psarticipants reported their attitudes on five issues on 7-point Likert scales from 1, *Do not agree at all* to 7, *Agree completely*. Among filler questions was the item measuring the target attitude issue, their attitudes toward "The legalization of voluntary euthanasia, that is, the right to end one's life if suffering from a terminal illness." Having completed the first battery of questions (filler questions and the target attitude item), participants were given the influential message that contained the background information and the source and argument quality manipulations. They were informed that according to a national survey on students, either a majority of 82%, or a minority of 18% of students was *against* the legalization of voluntary euthanasia. They then were asked to read the arguments against voluntary euthanasia. Having read the message, participants were asked to remember (as a manipulation check) the

percentage of students in the survey who were against voluntary euthanasia and to respond to the dependent variables measures, that is, the perception of influence on self and others and the perceived reasons explaining the potential influence on self and others. Finally, participants gave their gender and age, were thanked and de-briefed.

Dependent Measures

Perception of influence on self. Participants indicated the degree to which they thought that the message could make them agree with the positions advocated. Participants gave their responses on a 7-point Likert scale from 1, *Not at all* to 7, *In a significant degree.*

Perceived reasons accounting for the influence on self. Following Pronin et al. (2007), participants were asked to indicate the degree to which they thought their attitudes would be influenced by (a) the fact that a majority (or a minority) source was proposing the message (*source status*) and (b) their thoughts towards the content of the arguments (*thinking*). Participants gave their responses on two 7-point Likert scales from 1, *Not at all* to 7, *In a significant degree.*

Perception of influence on others. Participants indicated the degree to which they thought the message could make others agree with the positions advocated. Participants gave their responses on a 7-point Likert scale from 1, *Not at all* to 7, *In a significant degree.*

Perceived reasons accounting for the influence on others. As in the case of self, participants were asked to indicate the degree to which they thought that other people's attitudes would be influenced by (a) the fact that a majority (or a minority) source was proposing that message (*source status*) and (b) their thoughts towards the content of the arguments (*thinking*). Participants gave their responses on two 7-point Likert scales from 1, *Not at all* to 7, *In a significant degree.*

Results

Overview

Responses to all measures were analyzed using a 2 (source status: majority vs. minority) × 2 (message quality: strong vs. weak) between-subjects factorial analysis of variance (ANOVA). There were no significant effects involving gender or age so these variables are not considered in subsequent analyses. The means and standard deviations of the dependent measures are shown in **Table 1**.

Source manipulation check. The analysis of participants' estimates of the percentages of students against voluntary euthanasia revealed, as expected, a main effect of source status. It showed that those in the majority condition remembered that more students in the survey agreed with the message ($M = 71.31$) than did those in the minority condition ($M = 43.14$), $F(1, 79) = 52.19$, $p < 0.001$, $\eta_p^2 = 0.34$ (for a discussion on the informativeness and limitations of manipulation checks, see Fayant, Sigall, Lemonnier, Retsin & Alexopoulos, 2017).

Perception of Influence on Self and Others

To examine the perception of majority or minority influence, analyses focused on perceived influence on self and perceived influence on others separately. Also, as is often measured in the third-person effect literature, perceived influence was tested directly with a repeated measures analysis on self and others.

Separate analyses of perceived influence on self and others. The analysis revealed a main effect for argument quality, with strong arguments leading to greater perceived influence on self ($M = 4.30$, $SD = 1.61$) compared to the weak arguments ($M = 3.41$, $SD = 1.70$), $F(1, 79) = 5.96$, $p < 0.02$, $\eta_p^2 = 0.07$. The two-way interaction between source status and message quality was also significant $F(1, 79) = 3.92$, $p < 0.05$, $\eta_p^2 = 0.05$. Analysis of simple main effects showed that the strong message had greater

Table 1: Means and standard deviations for all dependent measures as a function of source status and argument quality (Experiment 1).

Measure	Majority		Minority	
	Argument quality			
	Strong (n = 22)	**Weak (n = 19)**	**Strong (n = 22)**	**Weak (n = 20)**
Influence on self	3.95	3.73	4.64	3.05
SD	(1.21)	(1.58)	(1.89)	(1.76)
Influence on others	5.00	4.57	4.86	4.55
SD	(1.27)	(1.21)	(1.55)	(1.27)
Thinking on self	4.72	5.21	4.27	4.30
SD	(1.54)	(1.51)	(1.77)	(1.71)
Thinking on others	5.09	4.36	4.45	4.40
SD	(1.37)	(1.11)	(1.40)	(1.63)
Source status on self	2.68	3.42	3.13	3.30
SD	(1.55)	(1.89)	(1.67)	(1.94)
Source status on others	5.01	5.10	4.50	4.20
SD	(1.08)	(1.24)	(1.33)	(1.39)

influence than the weak message only in the minority condition, indicating greater elaboration, $F(1, 40) = 7.86$, $p < 0.007$, $\eta_p^2 = 0.16$. The difference between strong and weak arguments in the majority condition was not statistically significant, $F < 1$. These findings provide support for Hypothesis 2. No significant results were found concerning the perceived influence on others.

Comparative analyses of perceived influence on self versus others. The effects of source status and argument quality on the target of perceived influence (self, others) were examined with a 2 × 2 × 2 mixed ANOVA with repeated measures on the last factor. As expected, results indicated a significant main effect for target, $F(1, 79) = 23.87$, $p < 0.001$, $\eta_p^2 = 0.23$. Participants perceived that the others would be more influenced ($M = 4.76$, $SD = 1.33$) than themselves ($M = 3.88$, $SD = 1.70$), providing support for the third-person effect (Hypothesis 1). The three-way interaction between target of influence, source status and argument quality also was significant, $F(1, 79) = 4.40$, $p < 0.04$, $\eta_p^2 = 0.05$. The differences were those observed in the perceived influence on self, presented earlier (that is, strong messages led to greater perceived influence in the minority condition only). These data suggest that participants in the minority condition believed that they would be less influenced by the weak (vs. strong) arguments. In other words, a more pronounced third-person effect was evident in the minority weak condition.

Perceived Reasons Accounting for Influence

To examine the reasons participants provide to explain the potential majority or minority influence, separate and comparative measures were tested. The former include thinking or source status as a cause of influence. The latter include three comparative indices, (a) thinking as a cause of influence on others minus on self, (b) source status as a cause of influence on others minus on self, and (c) source status as a cause of influence minus thinking (on self and on others).

Perception of thinking as a cause of influence. The analysis on the perception of thinking as a cause of influence on self revealed a main effect for source status with the majority leading to greater perceived influence of thinking ($M = 5.00$, $SD = 1.52$) compared to the minority ($M = 4.29$, $SD = 1.72$), $F(1, 81) = 4.23$, $p < 0.05$, $\eta_p^2 = 0.05$. Participants facing a majority (vs. a minority) suggested that thinking could be a possible reason of the potential influence on self, providing support for Hypothesis 4. No differences were found for the perception of thinking as a cause of influence on others. The difference between the two measures (perceived thinking on others minus perceived thinking on self, Pronin et al., 2007) was also tested but yielded no significant results.

Perception of source status as a cause of influence. The analyses on the perception of source status as a cause of influence revealed no differences for the potential influence on self, but a main effect for the potential influence on others, $F(1, 81) = 7.08$, $p < 0.01$, $\eta_p^2 = 0.08$. Majority (vs. minority) led to an increased perception of source status as a cause of influence ($M = 5.07$, $SD = 1.12$ vs. $M = 4.36$, $SD = 1.35$ for majority and minority conditions,

respectively). Moreover, the difference between perception of social status as a cause of influence on others minus the perception of social status as a cause of influence on self also revealed a significant main effect of source. Majority (vs. minority) led to a greater difference, $F(1, 81) = 4.71$, $p < 0.04$, $\eta_p^2 = 0.05$, ($M = 2.02$ vs. $M = 1.14$ for majority and minority conditions, respectively). This result indicates that participants thought others would be more influenced by the status of the source when they were facing a counter-attitudinal majority rather than minority.

Differences in perceptions of thinking versus source status as causes of influence. To examine the difference in importance between the reasons perceived by the participants that may be responsible for the social influence on self, a 2 (majority vs. minority) × 2 (strong arguments vs. weak arguments) × 2 (perception of source status vs. perception of thinking) mixed ANOVA with repeated measures on the last factor was employed. As expected, a significant main effect for perception was, $F(1, 81) = 50.42$, $p < 0.001$, $\eta_p^2 = 0.38$. Participants indicated that perceived thinking was a more likely factor of influence compared to source status ($M = 4.64$, $SD = 1.66$ vs. 3.12, $SD = 1.75$ for perception of thinking and source status, respectively), providing support for Hypothesis 3. No significant results were found concerning perceived influence on others.

Discussion

The results of Experiment 1 generally support theoretical expectations. The difference between perceived influence on self and others was evident (supporting Hypothesis 1, and the third-person effect literature). However, when the general third-person effect is examined, the social context of this perception should be taken into account, as the results of the present study show. In particular, and concerning potential influence on self, strong (vs. weak) arguments led to greater (perceived) influence in the minority condition only (supporting Hypothesis 2), replicating similar patterns of results found in studies of actual social influence (e.g. Gardikiotis et al., 2005; Martin et al., 2002). It seems that participants follow a validation process characterized by greater thinking and elaboration when they face an influential attempt by a minority source or when they estimate the potential influence by a minority source. This process seems to be responsible for the pronounced third-person effect in the minority weak condition, where participants think that others will be more persuaded by the weak arguments than themselves.

Concerning the perceived reasons accounting for the potential influence on self, thinking was preferred as compared to the source status (providing support for Hypothesis 3, see also Pronin et al., 2007). Within the context of self-serving explanations, we assume that participants are more willing to assume that potential influence on themselves is due to their internal thoughts rather than social pressure. These results also suggest that there is no confound between assessments of the amount of influence and the source of influence. Since there is no interaction between majority and minority status and the repeated factor, it is implausible that the difference

between majority and minority, observed in thinking as an explanation for self, is due to people's anticipation that they will be influenced by the majority but not the minority (and therefore both explanations of thinking and source status should be lower for minority).

In examining thinking as a cause of influence, the data showed that it was perceived as a more important cause when participants were exposed to a majority message than a minority message (supporting Hypothesis 4). This replicates Pronin et al. (2007), although they only examined the conformity condition (there was no minority condition). On the one hand, and based on social influence literature, we can say that people are motivated to yield to the majority position, and on the other hand and based on the present data, that people look for a self-serving explanation (such as the one that the thinking explanation offers) of why they would accept the majority position. Generally these findings provide support and extend previous findings on this issue (Pronin et al., 2007).

Experiment 2

This study has the same research goals as Experiment 1, but differs in the following ways: (a) actual majority and minority influence on self and perceived influence on others is examined (and therefore examination of Hypothesis 1 is not meaningful) and (b) a direct measure of actual thinking about the message is also included. Hypotheses 2, 3 and 4 are also tested here. Additionally, according to Hypothesis 5, a positive relationship is expected in the minority condition between thought listing data and reporting thinking as a cause of influence.

Method

Participants and design. One hundred and thirty-nine (74 females, aged between 18 and 30 years, mean age = 23.6) at a Greek University participated in the study. They were randomly allocated to one of the four experimental conditions of a 2 (source status: majority vs. minority) × 2 (argument quality: strong vs. weak) between-subjects factorial design. Two participants were excluded from the analysis because they had missing data.

Stimulus materials and procedure. The same materials as well as procedures as in Experiment 1 were employed.

Dependent measures. As in Experiment 1, the following dependent variables were used: perceived influence on others, perceived reasons accounting for the influence on self, perceived reasons accounting for the influence on others. Instead of perceived influence on self, participants were asked to give their attitude towards the legalization of voluntary euthanasia on four 7-point semantic differential scales. The end points of the scale were *bad-good, unfavorable-favorable, foolish-wise, unconvincing-convincing*. In addition, a thought-listing task was included. Participants were instructed to give the thoughts they had as they were reading the message (Alvaro & Crano, 1997; Baker & Petty, 1994; Martin et al., 2002; Martin & Hewstone, 2003; Martin, Hewstone & Martin, 2007). They could write their thoughts (either pro or against voluntary euthanasia or neutral) in a number of "idea boxes" (one thought per box). The ratio of negative thoughts divided by negative plus positive thoughts was computed as an indication of message-congruent thinking.

Results
Overview

Unless noted otherwise, responses to all measures were analyzed using a 2 (source status: majority vs. minority) × 2 (message quality: strong vs. weak) between-subjects factorial analysis of variance (ANOVA). No significant effects of gender or age were found. The means and standard deviations of the dependent measures are shown in **Table 2**.

Table 2: Means and standard deviations for all dependent measures as a function of source status and argument quality (Experiment 2).

	Source status			
	Majority		Minority	
	Argument quality			
Measure	**Strong (n = 33)**	**Weak (n = 31)**	**Strong (n = 38)**	**Weak (n = 35)**
Attitudes	5.55	5.61	5.32	4.09
SD	(1.53)	(1.32)	(1.61)	(1.95)
Thought listing	0.65	0.64	0.77	0.49
SD	(0.37)	(0.33)	(0.35)	(0.39)
Influence on others	4.61	4.39	4.97	4.69
SD	(1.63)	(1.65)	(1.49)	(1.65)
Thinking on self	3.12	3.13	2.63	2.54
SD	(1.16)	(1.80)	(1.34)	(1.75)
Thinking on others	5.73	4.42	4.89	4.80
SD	(1.04)	(1.31)	(1.48)	(1.58)
Source status on self	2.24	2.58	2.61	2.11
SD	(1.34)	(1.62)	(1.44)	(1.27)
Source status on others	4.67	4.74	4.95	4.46
SD	(1.61)	(1.73)	(1.35)	(1.78)

Attitudes. The analysis revealed a main effect for source status with majority leading to greater influence ($M = 5.58$, $SD = 1.42$) compared to the minority ($M = 4.73$, $SD = 1.87$), $F(1, 133) = 9.77$, $p < 0.003$, $\eta_p^2 = 0.07$. Also, a main effect was found for argument quality with strong arguments leading to greater influence ($M = 5.42$, $SD = 1.57$) compared to the weak ones ($M = 4.80$, $SD = 1.84$), $F(1, 133) = 4.26$, $p < 0.05$, $\eta_p^2 = 0.03$. A significant two-way interaction between source status and argument quality was also significant, $F(1, 133) = 5.32$, $p < 0.03$, $\eta_p^2 = 0.04$. Analysis of simple main effects showed that the difference between strong and weak arguments was significant in the minority condition, $F(1, 71) = 8.51$, $p < 0.005$, $\eta_p^2 = 0.11$. The difference between strong and weak arguments in the majority condition was nonsignificant ($F < 1$). This pattern of results provided support for Hypothesis 2.

Thinking. The analysis showed a main effect for argument quality, with strong arguments leading to more congruent thinking ($M = 0.71$, $SD = 0.36$) compared to the weak ones ($M = 0.56$, $SD = 0.37$), $F(1, 133) = 5.05$, $p < 0.03$, $\eta_p^2 = 0.04$. A significant two-way interaction between source status and argument quality also was significant, $F(1, 133) = 4.62$, $p < 0.03$, $\eta_p^2 = 0.03$. Analysis of simple main effects showed that the difference between strong and weak arguments was significant in the minority condition, $F(1, 71) = 9.89$, $p < 0.002$, $\eta_p^2 = 0.12$. The difference between strong and weak arguments in the majority condition was nonsignificant ($F < 1$). These results corroborate the evidence of message elaboration found in the attitudes data.

Perceived influence on others. The analysis did not reveal any significant effects.

Perceived Reasons Accounting for Influence

Perception of thinking as a cause of influence. The analysis on the perception of thinking as a cause of influence on self revealed a main effect for source status with the majority leading to greater perceived influence of thinking ($M = 3.13$, $SD = 1.50$) as compared to the minority ($M = 2.59$, $SD = 1.54$), $F(1, 133) = 4.19$, $p < 0.05$, $\eta_p^2 = 0.03$. These results provided support for Hypothesis 4 and replicate Experiment 1.

The analysis on the perception of thinking as a cause of the influence on others revealed a main effect for argument quality, with strong arguments leading to greater perceived influence on others ($M = 5.28$, $SD = 1.35$) compared to weak ones ($M = 4.62$, $SD = 1.47$), $F(1, 133) = 8.79$, $p < 0.005$, $\eta_p^2 = 0.06$. This main effect was further qualified by a significant two-way interaction between source status and argument quality, $F(1, 133) = 6.58$, $p < 0.01$, $\eta_p^2 = 0.05$. Analysis of simple main effects showed that the difference between strong and weak arguments was significant in the majority condition, $F(1, 62) = 19.69$, $p < 0.001$, $\eta_p^2 = 0.24$. The difference between strong and weak arguments in the minority condition was nonsignificant ($F < 1$).

Perception of source status as a cause of influence. There were no differences for perception of source status as a cause of influence either for self or others.

Difference in perceptions of thinking versus source status as causes of influence. To examine the difference in importance between the reasons perceived by the participants to be responsible for the social influence on self, a 2 (majority vs. minority) × 2 (strong arguments vs. weak arguments) × 2 (perception of source vs. perception of thinking) mixed ANOVA with repeated measures on the last factor was employed. As expected, a significant main effect for perception was evident $F(1, 133) = 18.51$, $p < 0.001$, $\eta_p^2 = 0.12$. As in Experiment 1 and providing support for Hypothesis 3, participants indicated that perceived thinking is a more likely factor of influence compared to the source status ($M = 2.84$, $SD = 1.54$ vs. $M = 2.39$, $SD = 1.43$ for perception of thinking and source status respectively).

Correlational analyses. To examine whether actual thinking, that is, the message congruent thoughts, was related to thinking, which was offered as an explanation of influence, the correlations of the two variables were tested across conditions. It was evident that message-congruent thinking was correlated with perception of thinking as a cause of influence on self only in the minority condition supporting strong arguments ($r = .31$, $p < 0.05$). In the same condition, thinking also was correlated with the difference between thinking as a cause of influence for others minus the self ($r = -.35$, $p < 0.05$). These results show that actual cognitive processing is directly related with perception of thinking as a cause of influence only in the minority condition, providing support for Hypothesis 5. In the majority condition, there was no significant relationship between the two variables.

Discussion

The aim of this research was to examine people's perceptions of social influence and their explanations of it. Do people estimate the potential influence that a majority and a minority message can have on themselves and other recipients? What are the socio-cognitive processes that underline these perceptions? Moreover, when people explain potential and actual majority influence, do they focus on the thinking about the message or on the status of the source, and what are the underlying socio-cognitive processes of these explanations? These questions are mapping a relatively new area of interest in social influence that is beginning to attract research attention (e.g. Gardikiotis, 2010; Pronin et al., 2007) and it is the first time that these research questions are examined in a social influence context.

Findings suggest that people make differential estimates about the potential influence of majority and minority sources. These estimates seem to depend on the different socio-cognitive processes that underlie majority and minority influence: people facing a minority source are following a validation process (Martin & Hewstone, 2005; Moscovici, 1985; Mugny et al., 1995), and hence, they differentiate between messages of varying argument quality (when they estimate potential influence, Experiment 1). The same process seems to be responsible for the data of actual influence in Experiment 2. Participants complied with the majority

position but differentiated between messages of different argument quality in the minority source. Moreover, the findings of the present studies show that explanations people provide about influence are mainly self-serving (thinking is preferred to the social status of the source) and do not depend on message elaboration. It also was evident that explanations depended on whether the influential source was a majority or a minority.

Previous research in social influence has not examined how individuals perceive and estimate majority and minority influence on themselves and others, something that has been extensively examined in the communication literature (Perloff, 2009). Findings from the present studies provided support for the third person effect, as participants thought that potential influence of majority or minority messages would be greater on other recipients than themselves. Interestingly, the third person effect was more pronounced in the minority weak condition, providing support to the idea that perceptions of potential influence should take into account the social context of communication. It is also an indication that participants in the minority condition, following a validation process, are able to differentiate between strong and weak arguments and assume that they would be less influenced by the weak ones compared to other recipients. Source status also was important, when participants estimated the potential influence on themselves alone. Minority messages with strong arguments led to greater perceived influence on self than the weak ones. This pattern was evident for both potential influence (Experiment 1) and actual influence (Experiment 2). All the above provide support to the theoretical idea of minority instigating greater message elaboration (Crano, 2010; Martin & Hewstone, 2003; Moscovici, 1985; Mugny et al., 1995). According to Martin and Hewstone (2008), in influence situations with topics that pose intermediate cognitive demands (as it is the case with the topic of voluntary euthanasia of the present studies – see also Gardikiotis et al., 2005), extensive cognitive processing is evident in the minority condition. This also is proposed by conflict-elaboration theory for subjective tasks (i.e. tasks that concern attitudes and opinions – as it is the case in the present studies) that involve social anchoring (Mugny et al., 1995).

The present studies also contributed to research that examines how people explain the (potential or actual) influence of a message in a majority-minority context, extending previous research that had examined such explanations in a conformity context only (Pronin et al., 2007). In both experiments, participants preferred thinking about the influential message as an explanation of influence than source status (replicating Pronin et al., 2007). Thinking as an explanation is positively valued and self-serving, it grants the individuals the power to follow the influential message because they have given to it considerable thought and scrutiny. Self-serving theorizing about these findings is more appropriate because thinking as an explanation of influence was not related to either attitude data (and thus did not follow argument quality effects) or actual thinking data (Experiment 2).

On the other hand, the source status as an explanation data did not follow a consistent pattern. While explaining potential influence on others in the first study, participants in the majority condition suggested that source status can explain influence, whereas in the second study, no difference was found between majority and minority condition. It might be assumed, without any supporting evidence though, that participants having been already influenced by the majority message (as was evident in the attitude data) are more reluctant to discuss or admit yielding because of the status of the source, or even propose source status as an explanation for influence on others.

A consistent finding in the present studies was that participants explained their potential or actual yielding to the majority message by pointing to their thoughtful consideration of the message. According to theoretical accounts (Moscovici, 1985; Mugny et al., 1995), people are motivated to move away from minority and toward the majority source. When they move away from minority, they do not need to justify their action, as it is more acceptable and normative to do so, and also perhaps because of the greater message elaboration of minority messages. When they move toward the majority though, individuals need a self-serving explanation to accept and justify movement to the majority source.

Interestingly, a difference in thinking as an explanation was evident between strong and weak arguments, but only when participants were explaining majority influence on *other* recipients (Experiment 2). This is an interesting finding because a differentiation between strong and weak arguments is evident, but it is not based on cognitive elaboration. Neither the attitude nor the actual thinking data resemble this pattern of results. One may hypothesize that this differentiation is based on information other than thoughtful consideration, on some kind of positive evaluation of strong arguments that is subtly understood by the participants. This specific difference and the relative sociopsychological processes should be examined in future research.

More importantly, the present studies showed that perceived thinking as an explanation of social influence is not based on systematic cognitive processing, and therefore serves purposes other than cognitive. While in both experiments there was a consistent pattern between the strong and weak arguments, in the minority condition only (the same for attitude and thought listing data), no thinking as an explanation of influence data followed these patterns. Moreover, perceived thinking was only related to the thought-listing data in the minority-supporting strong arguments condition. No relationship between perceived and actual thinking was observed in the other three conditions.

In conclusion, the present paper provides a consistent pattern of results concerning the ways people understand and explain majority and minority influence, and the socio-cognitive processes underlying these perceptions. Also, it brought three lines of research together to examine these phenomena: social influence research on the psychological processes underlying majority and minority influence

(Martin & Hewstone, 2003; Moscovici, 1985; Mugny et al., 1995); research that has examined how people assess and explain conformity for themselves and others (Pronin et al. 2007); and research from communication literature that examines self-other differences when people estimate the potential effect of an influential message, i.e. the third-person effect (Perloff, 2009). The studies presented here provide a contribution to this research by (a) examining perceived social influence, (b) directly examining the relationship between actual thinking processes and the perceptions of thinking as a cause of influence, and (c) expanding the social context where self-other comparisons about perceived influence are made.

Competing Interests
The author has no competing interests to declare.

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