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ABSTRACT PROPOSAL
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THE SYSTEM OF MASS MEDIA AND SOCIAL TRANSFORMATION

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PAPER TITLE:

SELF-OBSERVATION, SELF-REFERENCE AND OPERATIONAL COUPLING IN SOCIAL SYSTEMS: STEPS TOWARDS A COHERENT EPISTEMOLOGY OF MASS MEDIA

ABSTRACT:

On the basis the definition of self-observation as epistemology implicit in the works of Autopoietic Systems Theory and von Foerster's second order cybernetics, we consider the role of self-observation in managing meaning systems complexity with regard to the mass media system as a social sub-system functionally specialized in the coupling of psychic systems self-observation and social systems self-observation (including respectively themselves as each other's internalized environment).
Self-observation presupposes a capability for meta-observation (to observe the observation) that demands a specific distinction between observer and actor. This distinction seems especially relevant in those social contexts where a separation between the action of observation and other social actions is required (in politics, for instance). However, in those social contexts (such as mass media meaning production) where the defining action is precisely observation (in terms of the differentiation that constitutes the system), the border between observer and actor is blurred.
We shall consider the significant divergence between the implicit and the explicit epistemologies of the mass media system, which appears to be characterized by the explicit assumption of a classic objectivist epistemology, on one side, and a relativist epistemology on the other, posing a hybrid epistemic status somewhere in between science and arts.

KEYWORDS:
Mass Media System; Self-reference; Self-observation; Epistemology; Operational Coupling.

FULL TEXT:

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1. Notes for an epistemology of common things[1]

One of the Second Order Cybernetics' (SOC) milestone is to make clear the difference between two epistemological traditions coexisting in Western thought (Aguado, 2003a): on one side, the tradition that radically separates scientific knowledge from general knowledge via the incommensurability of the subject and the object of knowledge and, on the other side, the tradition that correlates scientific knowledge to general –and, hence, to ordinary pragmatic- knowledge in terms of a complementary emergence of subject and object interaction. We could speak, in this sense, of an *ontological epistemology* versus a *gnoseological epistemology*, the first prefiguring a philosophy of the method addressed to scientific knowledge, and the latter being conceived as a recursive trend of knowledge in self-referential terms –*knowledge of knowledge*, in the words of Morin (1993)-. The contradictory implications derived from the term 'experimental epistemologies' as it was coined by McCulloch (1965), and their crucial role in the configuration of SOC's epistemological premises may illustrate well the way in which these two traditions converge in system's thinking[2].

However, the originality of von Foerster's formulation was, in first place, to pose epistemology in the terms of an implicit theory of observation and, in second place, to translate the metaphysics of the subject and the object of knowledge to the prosaic language of observation. Once reduced the metaphysic noise of knowledge in a sort of implicit perceptual metaphor, the operational conciliation of the observer and the observed remains as the key problem.

In sum, SOC's first achievement was to prevent the ontological temptation of theories

(including Systems Theory, or even *specifically* Systems Theory) not by confronting them to empiric realities, but firstly by confronting them to themselves as resulting products of the process of knowledge: *from the very moment we stop considering the concepts we use as properties of the observed system, and we start considering them as an emerging result of the interaction between us and the observed system we are moving from ontology to epistemology* (Pakman, preface to von Foerster, 1991:103).

Whether we deal with observation theory (be it or not in systemic terms), or if we deal with observing systems (in the words of von Foerster), we are in a sense within the field of epistemology (knowledge of knowledge). By this, however, we are not articulating the scientific method as a specific form of knowledge (a sort of algorithm). We are simply, observing observation.

By posing, thus, the shift from systems to observing systems, SOC conceives epistemology as a theory of observation on the basis of an operational correlation among living, cognition and observation. As a consequence of that, SOC does not only emphasizes the old constructivist claim about the inclusion of the observer in the observed[3], but also strengthens a late-modern conception of epistemology as a general inquiry on the nature and conditions of knowledge (or cognition) which is far from the XIX Century tradition ascribed to the philosophical and logical analysis of scientific knowledge.

The conceptual proposals of SOC remain specially challenging for the social sciences, where epistemology understood as a self-referential theory of cognition stops being a legitimating procedure for an external observer in a privileged position and becomes an operational condition for the system itself. To put it in the terms of cognitive psychology, observation theory works at the epistemic social level as mind theories[4] in inter-individual communications: they apply the logic relativist principle to solve the solipsistic paradox involved in the cognitive and communicative operations of both social and psychic systems.

Beyond the well known systemic tradition on the organizational implications of communication and cognition, the self-referential epistemological connection between

communication and (self-)observation has been also marked by Maturana and Varela (1980) in the concepts of linguistic domain and 'languaging'. On the basis of operational coherence as the articulation of domains, the linguistic domain is defined by these authors as a «consensual domain in which the coupled organisms orient each other in their internally determined behaviour through interactions that have been specified during their coupled ontogenies». Moreover, the phenomenical domain of the observer is precisely the linguistic domain: both communication and observation are here posed as third order operational couplings, which ultimately define the social nature. Language is not just an instrument of observation, but an operational domain ('languaging') in producing consensus (meaning involved operational coupling) that shares with observation the double condition of pre-requisite and product for self-referentiality. In the words of Edgar Morin (1994), everything is included within meaning, but meaning is an emergence of this 'everything'.

According, as well, to Maturana and Varela, the crucial organizational characteristic of social systems as third order composite unities is that their self-organization is operated on the basis of communication as co-ontogeny. In such context, self-observation arises here as a functional premise of system-environment operational coupling and it is posed to act as a guarantee in managing complexity. Self-observation is here understood in Luhmann's terms as the system's re-entry of the difference between system and environment (a sort of meta-differentiation). In meaning based systems (psychic and social systems), this operation involves a sort of systemic conception of identity management which is, to our view, especially relevant in the case of mass media system and its role in the operational coupling between social system and psychic systems.

It is, however, the mediating nature of language and meaning with regard to cognition (much more determining in the work of Maturana and Varela) what opens the room to use the term 'epistemology' in reference to common, pragmatic knowledge. If any cognitive process is subjected to the very same principles of observational operations[5], epistemology as a cognitive problem cannot be restricted to the sphere of 'special things' (i.e., scientific knowledge procedure). In other words: to the extent any social or psychic system is an observing system, its operations define a specific way of making distinctions on the basis

of structurally determined differentiations, and hence, in the case of human and social observers, a way of embodying a specific kind of epistemology.

2. Beyond Luhmann's constructivist epistemology of journalism

According to Luhmann (1996) the mass media system (MMS) becomes a functionally differentiated social subsystem by means of adopting a specific code of observation in order to constantly produce a global, coherent social reality. «Their special contribution – summarizes Qvortrup (2003:152) - is a common production of the modern human's "transcendental illusion" of a global shared world». MMS's specific nature as a social subsystem is, thus, its operation of the social system's re-entry of system-environment differentiation. Such specialization emerges as a part of the functional differentiation that characterizes highly complex social systems and prefigures the relevant role of the MMS in reducing societal complexity.

Three important questions remain however to be addressed to in the theoretical works approaching the mass media social phenomena from the radical constructivist perspective (Cfr. for instance Luhmann, 1996; Qvortrup, 2003). The first is to appropriately discriminate between technological and social (i.e. institutional, organizational and cultural) dimension of the mass media (Taekke, 2005). The second is to adopt a definition of the mass media that takes into account their cultural complexity, avoiding thus to consider them from the classical journalism-centred perspective (Aguado, 2003b; Laermans, 2005). Accordingly, the third is to outline in systemic terms the role MMS plays with regard to individual social actors or, in Luhmannian terms, psychic systems (Aguado, 2003b; Laermans, 2005). For the purposes of this paper, we will focus attention on the two latter issues.

In *The Reality of the Mass Media* Luhmann takes into account the different spheres of action of the mass media following the traditional functionalist distinction on the intentional design of contents (news, advertising and entertainment). However, his global conception of the MMS remains essentially attached to the operational assumptions of

journalism. By posing conflict and newness as the operating guidelines of the MMS, Luhmann puts clearly the stress on news and reports. Entertainment is solely considered in the background of media as an time-consumption oriented system (obviating its operational link with arts and aesthetics, as well as with information), and advertising is approached to as a sort of a foreign operation for the system, a kind of parasite in the borderline between the MMS and the economic system. The result of this is that Luhmann obviates not only the deep operational links existing in media dynamics between these three spheres, but its recent evolution in terms of crossbreeding of operations and aesthetics (infotainment, product placement, infoshows, realTV, etc.).

It is, to our view, this emphasis on the journalistic understanding of mass media operational characterization what allows Luhmann to start his approach to the matter with a constructivist revision of the old debate on the nature of media as a mirror of society. In more than a sense, the 'mirror/window' conception of media constitutes a sort of paradigm (Morin, 1993) that prefigures the epistemological debate with regard to mass communication studies. A debate which is mostly influenced by the epistemological problems of journalism as a social knowledge operation. The question of how the mass media representation can be guaranteed to correspond to an effective selection of information in social reality is a typical implicit and legitimating question in journalism. Certainly Luhmann puts the debate in the terms of radical constructivism: the question is not if the reality of the mass media is or not the social system's reality (i.e., if it is *true*), but rather how the mass media construct their reality and how it comes to be operative for the social system. However, precisely by doing that, Luhmann's approach to the mass media remains attached to journalism as the operational frame for the system.

Consequently, his conceptualization of the MMS is built on the basis of a constructivist epistemology of journalism rather than according to a comprehensive systemic approach to the mass media. Two relevant consequences can be observed from this conceptual choice Luhmann makes:

The first is **the relevance given to information as a code**. Luhmann (1996: 22) –and later on, Qvortrup (2003:136)- emphasizes that his proposal of information/non-information as

the MMS' code does not ultimately relate to meaning, but to selections. Obviously the MMS code must be as generalized and abstract as to maintain a sufficient coherence for the whole system's operations. But this emphasis seems to obey as well to an implicit need of avoiding a potential confusion between 'information' as a selection operation and 'information' as the content of news and reports (i.e. the 'symbolic medium' for journalism). However, as Laermans (2005) notices, this conceptual choice involves the danger of operationally undifferentiating the MMS, as far as any social system operates under the principle of producing information as selections in its interactions with environment. Consequently, the distinction information/non-information can be postulated to be a general distinction for any social subsystem. In what sense, then, can it be taken as the specific code of the MMS?

Luhmann implicitly answers to that question when pointing to crisis and conflict as the program that guides the MMS selections. But this answer again shows how near Luhmann's conception of the MMS is to those classic journalist-oriented perspectives on the mass media. By explaining information/non-information differentiation in the frame of a crisis-oriented program, Luhmann re-contextualizes 'information' in a journalistic context, attaching it implicitly to what is 'relevant', 'unexpected' or, in his words, 'irritating' to society (obviously, for the shake of system's organizational closure, all of them in the terms of MMS differentiation). Consequently, the operational criteria that differentiate MMS' information/non-information code are, indeed, journalistic criteria.

But can we reduce the organizational coherence of the MMS to the selection criteria of news and reports? Can be crisis and conflict postulated as the specific program of MMS operations beyond a journalistic conception? Our view is that such conceptualization of the MMS obeys to its understanding as operationally determined by journalism, and that it shows to be especially useful in explaining the operational couplings between the MMS and the political system within the context of public opinion (see Qvortrup, 2003, chapter 5 for an extended interpretation on these premises). Then, it cannot be accidental that entertainment and advertising remain in the background, for their relevance is subjected, under these assumptions, to secondary operations within the system, such as providing economic support (advertising), supporting the semantic coherence settled by news and

reports (both advertising and entertainment) or simply constituting a sort of game and escape that compensates system's orientation to crisis (entertainment). The reader may here observe the essential coherence of these assumptions with those of American functionalism in the field of Mass Communication Research (Lazarsfeld & Merton, 1954).

Accordingly, the second consequence derived from Luhmann's approach to the MMS in the terms of a constructivist epistemology of journalism is **the strict focusing of the system's operational coupling on the public opinion sphere**, practically obviating the relevance of the MMS with regard to the economic system and to psychic systems. To our view, the operational coupling of the MMS within the social system must take into account, as we shall pose later, at least three social spheres: public opinion (Luhmann, 1996; Qvortrup, 2003), consumption and identity. These three operational domains of the MMS prefigure it as a shifting system involving political system, economic system and psychic systems. A global cultural approach to the MMS demands to revise information/non-information as the system's code and, consequently, it demands as well to account for the operational relevance of the non-journalistic operations of the system, which strategically involve aesthetics, attention and consumption. In our view it is precisely in this perspective where one can properly pose the central role mass media play in globalization.

3. Relevance, attention and interest

Luhmann's assumption of the specific nature of the MMS as a functional guarantee for the maintenance of a "transcendental illusion of a global shared world" (Qvortrup, 2003:152) fits indeed the current approaches to mass media as a cultural, and simultaneously economic, mediation agent (Aguado, 2003b). However, if the role of MMS is to be defined in systems perspective as a society's (self-)observation agent addressed to reduce complexity (as in Luhmann's definition of thematization as MMS operational dynamics), we have still to differentiate MMS from other social subsystems functionally characterised in the same terms (for instance, Science and Technology).

Unlike Science, the MMS develops its functionality as a self-observation system in terms of consumption dynamics. In the context of mass media, the attention paid by the public to contents and announcements (previews of what is coming) becomes an economic value and an operational validating criterion (Aguado, 2003b; Laermans, 2005). If the social self-observation function of Science is developed under the premises of applicability and coherence, the social self-observation function of the MMS is operated under the premise of the will to consume (keep watching, reading and remembering). According to that, the selections of the MMS do not ultimately respond to their unexpected or problematic nature, but to their potential for being selected by audiences. Conflict and crisis are one of the main media for achieving attention and interest in the context of journalism. But, as well as not everything is news and reports in the mass media, conflict and newness are not the unique medium for achieving the public's interest. Thus, for instance, the spectacular nature of contents, the emotional implication, the appeal to quotidianity or the aesthetics of visual forms and plots may be postulated as media for achiving public's interest in the case of entertainment or advertising.

Consequently, the code information/non-information seems to be quite undifferentiated if we take it in systemic terms (information as a selection upon a difference), but it shows to be quite limited if we take it in the journalistic mood of newness and unexpected. In looking for a differentiation code valid for the MMS (including, in Luhmann's terms, news and reports, entertainment and advertising), three proposals from recent literature deserve being considered.

Juan Luis Pintos (2001) poses the difference between relevance and opacity as the meta-code that regulates the differentiation operations according to other possible codes within MMS (information/non-information, for instance). Assuming that MMS plays a fundamental role in the configuration of social imaginaries, Pintos underlines the operational importance that mass media have in designating what is relevant 'for society' and hiding or minimizing what it is not. Again, this binary code remains subjected to the journalistic conception of mass media as a 'camera focusing' for the social system: the 'public eye' of media shows and, simultaneously, hides. This complementary relation between designation and obviation constitutes, according to the author, the ultimate nature

of the MMS' operation. Moreover, Pintos emphasizes the critical perspective by questioning the MMS capability to adequate the relevance/opacity differentiation to the informational criteria of society.

There are, however, in this view two differences with regard to Luhmann's proposal that must be underlined: The first one is that the meta-code relevance/opacity (unlike in the case of information/non-information) does not necessarily point to a selection of the unexpected, improbable or irritating. It simply points to a key distinction between what the MMS considers to be relevant and not. This way, the author opens the door to the operational relevance of mass media organizational and strategic variables (such as audiences and social impact), which remain significantly neglected in Luhmann's work. The second difference is that the meta-code relevance/opacity extends the characteristic functionality of the MMS in producing a 'shared global image of the social system' to all the systems' products, namely, advertising and entertainment, besides news and reports. This point, which is crucial in our view to consider the role of the MMS in modern globalized societies, shows a secondary place in Luhmann's arguments. Perhaps it is due to the fact that the code information/non-information and its focusing on exceptionality and crisis do not always fit the coherence of advertising or entertainment products, which significantly resort to everyday life and normality as a meaning (or relevance) production context.

Nevertheless, the key point of the relevance/opacity differentiation remains untouched. If we take into account the operational relevance of organizational and strategic factors (as audiences and advertisers) in the MMS, we should ask which is the defining consequence of mass media distinction between relevance and opacity.

In doing so, we should take into account that what determines the system's differentiation between relevance and opacity is the fact that they are being watched, listened to or read, i.e., the fact that there is –or *there can be*- communication. MMS is a social subsystem addressed to guarantee communication in a paradoxical form: maximizing the interest and range of utterance and understanding by systematically excluding its public from the systems' operation, or, in other words, by systematically *producing* their audience.

It is important here to underline that, in order to maintain the MMS' closure, *audience* is a product of the MMS, and not a configuration of MMS's environment. A fully operative concept of audience in systemic perspective must constitute a MMS' internalization of its environment (other social subsystems and psychic systems).

Consequently, it is the public's attention (in the form of audience's interest) which remains in the very base of MMS operations (Aguado, 2003b; Laermans,2005). Thus, a previous differentiation code emerges before relevance/opacity differentiation. It is the differentiation between interest and non-interest (Aguado, 2003b). As far as attention is an operation characteristic for the systems of MMS's environment (social subsystems such as politics or psychic systems may put attention in mass media as in other events of their environment) we consider more accurate the code interest/non-interest than the attention/non-attention differentiation (Laermans, 2005). Interest is a communicational attitude that the MMS attributes to its representation of the environment, or, more precisely, *interest is the communicational attitude that allows MMS to produce audiences as an internalization of its interactions woth socetal environment*. As such, interest guides the very operations of the system, regardless we speak of news, entertainment or advertising. Attention seems rather the consequence of operational coupling of MMS communications and psychic systems.

4. The uses of redundancy

Another point that allows for a revision of Luhmann's emphasis on information with regard to the MMS is the fact that the selection operations of mass media seem to be related not exclusively with information, but simultaneously with redundancy: Mass media need to weave a net of recognizable meaning frames capable to absorb radical newness and to link events and symbolic contexts in order to keep and maintain attention. By its inherent difficulty for understanding, improbability and newness dramatically decrease attention. Certainly they may produce interest in the form of attraction, but only in a momentary scale unless it is attached to the maintenance of attention (i.e. unless there is an

operational coupling in the communication process). To reach and maintain attention mass media make redundancy compatible with impact and surprise. In a sense we could say that mass media selection turns information into redundancy.

This would apparently agree with the idea of the MMS as an 'irritating' subsystem performing a permanent transformation of the new into the 'already known' (Luhmann, 1996:143). But, besides the fact that this conception fits classic journalistic perspective on the informational contribution to 'public knowledge', the mass media selection –and especially that of journalism- follows rather the principle of potential redundancy than the strict criterion of newness.

To understand this it is relevant to underline the conceptual connection existing between redundancy and meaning in mass media operations. Because of their technical conditions and the proteic nature of the rhythms and contexts in which media contents are consumed, the mass media are forced to present their 'reality' under the premises of indicial logics, i.e. presenting meaning markers that evoke or link meaning structures to already existing meaning frames. For instance, the meaning frames involved in the coverage of March 11 2004 terrorist attack in Madrid were those of New York 9/11 attack and previous ETA terrorist attacks. The understability of that shocking event was weaved on the bases of similarities with previously engaged meaning structures, and thus, through selected redundancy. Even in the case of the 9/11, at the occurrence of the event and because of the lack of fully compatible previous meaning frames, the frame of reference was initially took from fantasy products, such as Tom Clancy's novels or Hollywood films, remarking the unbelievable nature of the event through their formal similarity to political thriller fantasies.

The difference between live broadcasting and journalistic reports illustrates as well this selection orientation to the redundancy potential of information selections. Both the 9/11 and the March 11 attacks were strategically designed as a media events[6]. At their first stage they involved the live broadcasting of terrible and spectacular images of destruction and suffering. The meaning structure for understanding what was happening was almost non existent, apart form redundant close images of wounded people and bodies (especially in

the case of March 11 attack) evoking confussion, panic and suffering. It was necessary a distance from the event (in time and in emotional terms) so that the redundancy selection could be operated in order to absorb uncertainty.

When facing an exceptional event, characterized by a maximum newness and rupture of the plausible expectations, journalism's selections are addressed to explain the occurrence, and thus to represent it in knowable terms. Mass media function here is to simultaneously emphasize and dissolve rupture (i.e. to turn information into redundancy). The theory of exceptional events posed by Grossi (1981, 1985) focus precisely on this premise: media absorb uncertainty by giving sense (via redundancy) to what has not (rupture). To do this, media refer events to other events, and split the unexpected event into a set of interrelated secondary events that allow them to produce an effect of 'unavoidability' as well as to extend interest in time.

This produces an effect of '*a posteriori* prediction' that turns the improbable into probable. Through this process, the unexpected event acquires meaning and enters the sphere of plausible expectations, constituting a frame of reference for future events. In the case of Madrid March 11 attack, for instance, a wide variety of secondary events (concerning the authorship, the government information, the political answer, the people's reactions, the victims' suffering, the potential influence in the near comming elections, etc.) configured an intensive net of redundancy selections that allowed to distribute and absorb the uncertainty posed by the event, constituting the prerequisite to transform it in a political debate on the ethics of government and media.

The uses of redundancy are sufficiently evident in the field of entertainment and advertising: remakes, sequels, spin-offs, versions, intertextual references or aesthetic reproduction constitute only some of the strategies for maintaining a façade of newness that simultaneously keeps interest and understanding on the basis of recognizable forms and meaning structures. However, even in the field of news and reports (where the assumption of information as unexpected or new seems an operational prerequisite) redundancy plays as well a crucial role.

5. The self-observation paradox in the MMS

As we have pointed out before, the differences between the cultural and the journalistic approaches to MMS show their ultimate relevance in the epistemological conflict about mass media as an observing system related to social system's self-observation. We may summarize this conflict in the form of an endemic inadequacy between two kinds of epistemology in the MMS. On one side, an *explicit epistemology* that fits classic objectivist assumptions and considers the media under a sort of perceptual logics ('camera does not lie'); and, on the other side, an *implicit epistemology* that fits the assumptions of a nominalistic relativism according to which media shape the social actors and the very social system. While the explicit epistemology structures most of mass media journalistic self-descriptions (presentations of what 'good media' should be), the implicit epistemology constitutes a common place for the social critique about media (including entertainment and advertising).

Mass media journalistic discourses are, thus, full of references to truth, objectivity, fidelity, adequacy, etc. The interesting point is that they all are procedural references that give for granted the concepts they involve as well as their implications. In press style books, for instance, one can find standard procedures for writing reports, ensuring plurality of perspectives, double-checking resources, contrasting declarations, etc., all of them specifically addressed to guarantee objectivity, independence and equanimity. As Muñoz Torres (2000) has pointed, these procedural standards involve an objectivist conception of the observational relation between the mass media and the social world. They do not question the nature of that relation, but simply develop formalized routines that assumingly produce an appropriate representation of events[7].

According to Gaye Tuchmann (1972) most of these practices and routines respond to the need of protecting the professional journalists from environmental interferences (protecting the reporter from the intervention of the staff, protecting resources from unwanted consequences derived from their confidences, protecting the medium from the intervention of Law or political menaces, etc). However, the fact that this conception is widely

extended to a general conception of media (not exclusively journalism) as a 'public eye' seems evident.

Such an objectivist conception attributes to mass media the classic characteristics of positivism: a privileged point of observation, the assumption that observation does not affect the observed and that the observer is not part of the observed nor of the observation, and, in the terms posed by Williams (1995), an absolute conception of the world (i.e., the assumption that the world is as it is).

The question, however, is how is it possible to maintain an explicit assumption of such an epistemology in a hypercomplex society (Qvortrup, 2003) characterized by a policontexturality and heterocentrism, which necessarily involve a radical fragmentation and decentralization of observations. And, moreover, how does it concern globalization.

The constructivist turn constitutes in our view a precondition for an answer to that question. Another prerequisite is to abandon a journalism centred understanding of media operations as observation and to recognize the hybrid epistemic status of media, somewhere in between science, pragmatics and arts.

Unlike in other subsystems (as science or arts, for instance), epistemology remains problematic in the sphere of mass media because of the hybrid nature of their operations: *mass media produce the reality they observe and observe the reality they produce.* Precisely because the code relevance/opacity remains as a blind spot for the system's operations, mass media cannot access to the connection between production and observation. In other words, the key problem for mass media is that, for them, *observation equates to action*. As Luhmann (1996) points, for the mass media system there can be *no difference between the world as it is and the world as it is observed.* That is the reason why mass media cannot conceive another kind of epistemology (or another understanding of their observations) different that the objectivist one.

These premises are concerned by Luhmann when pointing to the code self-reference/hetero-reference as a basal differentiation for the MMS. According to this, the

mass media are unable to self-observe in different terms than in those they apply to their observations of society. They conceive themselves as social actors through their very functional condition of observers and, thus, *mass media necessarily refer to themselves in hetero-referential terms*.

Together with Luhmann we conceptualize the system of mass media as a social subsystem specialized in the operation of the social system's re-entry of system-environment differentiation, assuming that this specialization emerges as a part of the functional differentiation that characterizes highly complex social systems. MMS's defining operation *is*, thus, observation. Obviously any social subsystem is to be intrinsically considered as an observing system (there is no complexity reduction in social systems without observation).

In coherence with von Foerster's theoretical framework, social system's self-observation presupposes an epistemology that determines the form of interactions within the system. It presupposes a capability for meta-observation (to observe the observation) that demands a specific distinction between observer and actor. This distinction seems especially relevant in those social contexts where a separation between the action of observation and other social actions is required (in politics, for instance). However, in those social contexts (such as mass media meaning production) where the defining action is precisely observation (in terms of the differentiation that constitutes the system), the border between observer and actor is blurred.

Consequently, these social subsystems in which there is a clear differentiation between their defining operation and observation are able to implement self-observation on the basis of the actor/observer distinction. This is not the case of the MMS, as far as its acting condition is precisely observation. This is the reason why the self-reference/hetero-reference distinction is crucial for the very constitution of the MMS as a differentiated social subsystem (Luhmann, 1996). Unlike in other social subsystems, MMS's self-observation is condemned to be implemented in a hetero-referential form, i.e. conceiving itself as an actor whose action is oriented to truth. In this point lays the impossibility to conciliate the explicit and the implicit epistemology of the MMS and, paradoxically, in this point lays as well their complementary nature as two coupling opposed descriptions of

system's observations.

That paradoxical condition of the MMS self-observation plays, to our understanding, a relevant role in the operational coupling of the MMS with other social systems (especially politics) within the environment of the public sphere. More than MMS's functional role in the thematization and irritation of the public sphere (Qvortrup, 2003), the hetero-referential condition of MMS self-referentiality (and, consequently, its emphasis in the explicit epistemology) results operationally relevant for any social actor within the public sphere. This concerns mainly political actors and enterprises or brands, which show to be particularly affected by the consequences of their public image, but it can be posed as a general principle for the operational coupling of any social actor with the MMS.

As we have posed before (Aguado, 2003b), the hetero-referential terms in which MMS operates self-reference involves a sort of system's *internalization of hetero-reference* (thus for instance, the compulsion of media to merge with other social functions as politics, economy, etc., and their typical facility to judge or evaluate every circumstance in every context). This allows, in turn, for an *externalization of the MMS selection criteria (interest/non-interest) that can this way be incorporated as a medium in the interactions of other social systems with the MMS.*

In other words, this means a sort of transference of mass media hetero-referential criteria to other social systems. As a result of that, social and psychic systems incorporate in their interactions with media the very same selection criteria that media apply in their interaction with them. Such is the organizational principle of institutional and corporate communication as well as the operation principle of media events (see endnote 6). This means the externalization of *interest/non interest* differentiation code and its subsequent paradox: *Social systems observe themselves under the selection terms of MMS (interest/non-interest); MMS observe itself under the terms of the other social systems.*

The result is that media hetero-referentiality becomes in fact an externalized self-referentiality. Hetero-reference becomes a substantial part of media system's self-reference. The basal distinction self-reference/hetero-reference is then partially solved by a

paradox with consequences at the scale of the whole social system.

According to Luhmann (1996), MMS (from a journalism centred point of view) does not observe itself as an observing system, i.e. does not operate under the premises of a second order observation. It simply observes and selects events within social environment and presents them as a matter of fact. However, if on one side we assume that hetero-reference is a form of system's externalized self-reference, and on the other side we accept that it is rather *interest* than *information* what organizes the system's operation, we should reconsider media systems' ability to self-observation.

Let us put it in other words: In what concerns information (in its sense of 'news and reports'), media system self-observation is operated through a symbolic overlapping of media and society ('public opinion'). Media are thus 'the eyes' of society (explicit epistemology), but society is here what media constitute as such (explicit epistemology). Consequently, when media contents such as news or reports refer to 'society', they are indeed operating a self-observation that includes social conception of media as an observation system. That is the essence of MMS's paradox: *the more they pretend to be 'out of society' (in observation terms): the more they built themselves as a constitutive part of that society, and vice versa*.

An illustrative example of the self-observation paradox in journalism and information mass media is the case of self-reference in news (Santin, 2006). News papers include often themselves as social actors in the events they present through news and reports. For instance, in the press coverage of Madrid March 11 attack self-reference to media as social actors was crucial for the representation of the events, posing a binary structure of intentional observations as 'revealing the manipulation of political actors' vs. 'manipulating according to political actors'. This distinction was alternatively thematized by both political actors (in reference to public opinion and media) and by mass media (in reference to public opinion and political actors). Consequently, this self-reference was operated in the form of an hetero-reference for both political actors and mass media.

This self-referential inclusion fulfils –in this and other cases- a double function: on one

side it legitimates (and, consequently, promotes) the observer role of the medium through an implicit translation of the equivalence observation/action to the equivalence observation/observed; and, on the other side, it serves to settle the coherence between the code relevance/opacity and the code interest/non-interest (merging thus the social observer role of media and its orientation to audiences).

From the point of view of the differentiation between interest and non-interest, mass media are then compelled to observe their observation (though in hetero-referential terms) in order to maximize the effectiveness of their communications (interest). The operational coherence between advertisers and media is precisely based upon this premise, and the same refers to the operational coherence between audience research and social environment representation. That is the reason why audience should be considered an operational construct of the MMS. Such understood audience constitutes a symptom of this characteristic self-observation in hetero-observational form.

6. Politics, consumption and identity: operational couplings of the MMS in contemporary society

We have questioned in the previous epigraphs those systemic approaches to mass media highly determined by the organizational conditions of journalism and information practices. When doing so, we have pointed the relevance these perspectives tend to confer to the operational coupling off the MMS with politics in the constitution of the public sphere. And we anticipated that at least two other spheres of constitutive interactions mark the relevance of the MMS in contemporary social systems: consumption and identity.

Consequently, as a sort of conclussion, we have tried to summarize in the graph below our conceptual work on the operational couplings of MMS and three relevant social systems: politics, economy and individuals. The sphere of influence of these operational couplings marks the relevance of the MMS in globalized contemporary societies. To our understanding, a systemic approach to the mass media fully consequent with the premises outlined in the preceeding sections must *take into account the reciprocal role MMS,*

politics, economy and individuals play in public opinion, consumption and identity.
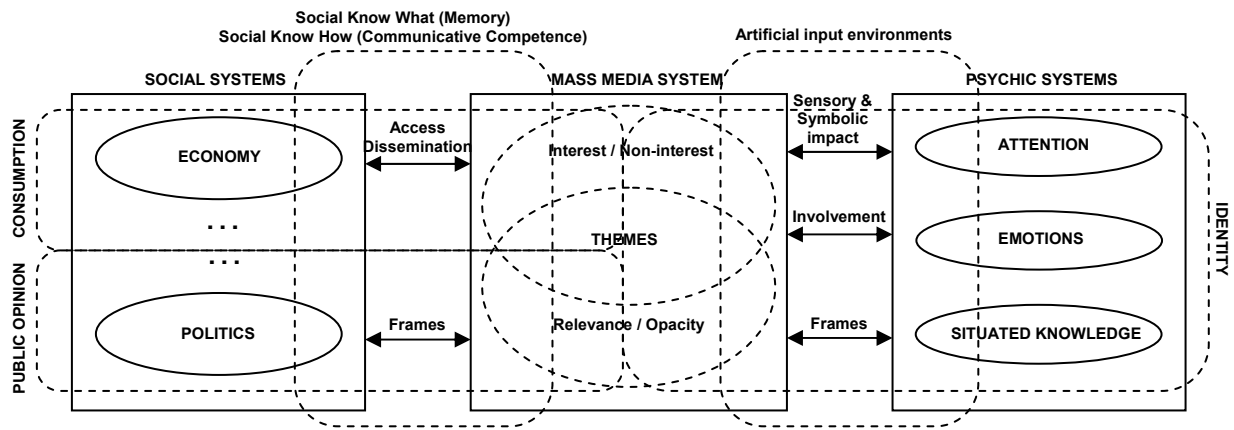
Graph 1: The Mass Media System Operational Couplings

As we have posed, a specific complementarity of two codes (interest/non-interest and relevance/opacity) guides in our view MMS's operations. The result of the system's selections operated under these codes constitutes themes (or situated meaning structures) that, on their turn, function as a medium for the operational couplings with other social systems.

Through the organization of access and dissemination, interest and relevance coordinate the operational coupling of the MMS with the economic system. Access is the primary value of consumption practices (that, on their turn involve the operational coupling of economic system and psychic systems). Dissemination is a prerequisite for access, and involves the operational relevance of advertising and lifestyle patterns in the coupling of MMS and economy through consumption. It is important here to underline the self-referential nature of this operational coupling, as far as mass media contents are also products addressed to consumers via dissemination and access. In a schematic form: Interest guarantees dissemination, dissemination guarantees access and dissemination and access feed interest. From a collateral view, it may be relevant in any case to mention that the current shape of consumption practices in globalized modern societies cannot be explained without referring to the mass media.

Through the organization of frames via thematization, interest and relevance coordinate the operational coupling of the MMS with the system of politics. Themes and meaning frames operate here as selections that guide the communicative interactions *with* and *through* the system of mass media, constituting a privileged space for the configuration of the public opinion. Mass media are here not only a society's self-observation system, but a system derived from social systems' self-observation. In other words (and again in self-referential) terms: the system of politics observes itself through MMS observations, but also the MMS observes itself (in hetero-ferential terms) through those observations of political and other social actors which are specifically produced to be selected by the mass media in terms of interest and relevance.

The operational coupling of the MMS and the systems of economy and politics in the spheres of consumption and public opinion constitute the base of a socially shared knowledge that supports that 'modern trascendental illusion of a global shared world' referred to by Qvortrup (2003). This social knowledge concerns a 'social know what', that operates as a social situated memory (a sort of 'social encyclopaedia' in the terms of pragmatics) and a 'social know how', that prefigures the communicative competences necessary for the social actors to succesfully operate in within the borders of the operational couplings between the MMS and the systems of economy and politics.

The operational coupling of the MMS with psychic systems have been developed in previous works (Aguado, 2003b; 2004; 2005; 2006). In these works we intend to conciliate the Cultural Studies perspective with a constructivist conception of the MMS focused on its role in producing artificial inputs environments (Geyer, 1991) and consequently in transforming the cultural dynamics of identity production. In our view, the paradoxical self-referential hetero-referentiality that characterizes the MMS facilitates it to produce a social environment (a social reality, in Luhmann's terms) simultaneously as an endogenous representation of their interactions with other social systems and as an exogenous representation of individuals' social environment.

The MMS operationally couples with psychic systems by producing artificial input

environments addressed to reduce social complexity and to facilitate decission making processes within the spheres of social interactions and especially involving consumption practices. In doing so, the mass media contents specifically concern attention (as an operational prerequisite for communication), emotion (as an operational prerequisite to the internalization of the meaning frames involved) and situated knowledge (i.e. communicative and interactional competences at the individual level).

Interest and relevance, thus, affect attention, emotional implication and situated knowledge via sensory and symbolic impact, emotional involvement and meaning frames of reference. Perceptual and aesthetic immersion, toghether with emotional involvement are characteristic strategies of both the semantic and technological dimensions of media (especially in what concerns entertainment and advertising, but incresingly as well with regard to news and reports). Additionally, as in the case of the operational coupling within the public sphere, meaning frames provide with reference structures that contribute to increase redundancy reducing societal complexity. In such context, the mass media can be conceptualized as a social subsystem functionally specialized in the coupling of psychic systems self-observation and social systems self-observation (including respectively themselves as each other's internalized environment).

Another relevant aspect in the graph commented is the implicit condition of the MMS as a bridge between the operations of the systems of politics and economy, on one side, and individuals or psychic systems, on the other. This capability to weave consumption practices and public sphere to the constitution of individual identities in complex societies points to the crucial role mass media play in social systems and poses a significant and defying horizon for the development of the systemic understanding of the mass media.

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[1] The title of this introductory section to this paper seeks to pay tribute to von Foerster's unconcluded theory of observation as a challenging proposal in the no man's land between classic epistemology and gnoseology in the context of systems thinking.

[2] Although the concept was posed by Warren S. McCulloch as a descriptive term to illustrate his thesis on the logical basis of neural organizations, the French Sociologist Jean Pierre Dupuy (1994) uses it to designate a phylosophical trend marked by the recursive turn of the methodological thought on knowledge, including thus another conceptual or theoretical proposals like Piaget's Genetic Epistemology or the cognitivist approach in the early cognitive sciences. In this sense, the „experiemental epistemologies" refer to a historical moment when objectivist epistemologies come to a self-referential point and become aware of its ontoligical nature.

[3] From the perspective of Philosophy of Language, Putnam (1994:179) reminds in coherent terms that «we cannot divide our language into two parts, one describing "the world as it is in any case" and the other describing our conceptual contribution. [...] We cannot describe the world without describing it ».

[4] Mind theories constitute a sort of pragmatic psychology version of double contingency and reciprocal self-referentiality. They assume cognitive subjects operate in their interactions within the strategic frame of assuming the other has a 'similar mind' and, consequently, that he or she is able to similarly perceive shared situations and similarly adopt oriented behaviours. The presence of a mind theory, for instance, is often posed as an operational prerequisite for being capable of deceiving (Martí, 1997). In coherent terms, for instance, G. H. Mead (1992) designates the capability of adopting the other's point of view as a *conditio sine qua non* for both communication and society, and so does Piaget (1969) with regard to the egocentric phase in cognitive development.

[5] Following the work of von Foerster, Bateson, and, later on, Luhmann, observation is understood as the operation of a distinction upon a diference. According to Varela et al. (1992) this can be taken as the algorithmical expression of a basic cognitive operation. The constructivist perspective, then, relies on the fact that the distinction does not belong to the observed –as in positivist epistemology- nor to the observer –as in subjectivism or in relativism-, but to the act of observing.

[6] A *media event* is a social event conceived and performed to be specifically selected by media coverage in preferential terms. The operational relevance media events have for the operational coupling of social systems with the MMS will be later posed to be a crucial issue in the paradoxical condition of MMS's self-observation.

[7] In a sense, as compendia of formalized procedures addressed to guarantee the adequacy of observations, press style books play a similar role than those conceptions of classic epistemology as a logics of the scientific method.