

Press advertising and the ascent of the 'Pensée Unique'

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Abstract

The press industry depends in a crucial way on the possibility of financing an important fraction of its activities by advertising receipts. We show that this induces the editors of newspapers to moderate, in several cases, the political message they display to their readers, compared with the political opinions they would have expressed otherwise. To this end, we consider a three-stage game in which editors select sequentially their political image, the price of their newspaper and the advertising tariff they oppose to the advertisers. The intuition of the result lies in the fact that editors have to sell tasteless political messages to their readers in order to sell a larger audience to the advertisers. © 2001 Elsevier Science B.V. All rights reserved.

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“As mass advertising grew, the liberal and radical ideas – in editorials, in selection of news, and in investigative initiatives – became a problem. If a paper

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wished to attract maximum advertising, its explicit politics might create a disadvantage. To obtain more advertising it needed readers of all political persuasions ... The answer in the news was a technique called “objectivity” ... The doctrine of objectivity ... has given American standard news a profoundly establishmentarian cast”.

Bagdikian, 1992, *The Media Monopoly*, 129–130.

1. Introduction

The French expression ‘*La Pensée Unique*’ designates a social context in which discrepancies among citizens’ political opinions are almost wiped out. In this context, people do not pay much attention as to whether politicians belong to the left or to the right: in any case, the platforms of both wings mirror each other. Political newspapers or opinion magazines reflect the context of the *Pensée Unique*, as they provide very close analyses of the political process. Extreme positions are softened, or even banished, and their articles depict political events through the same interpretative prisma.

The ascent of the *Pensée Unique* Society has been convincingly explained by the phenomenon underlying the ‘median voter theorem’. Political parties tend to propose platforms which are close to each other in order to capture voters’ ballots with opinions located at the centre. Discrepancies in citizens’ political preferences are then progressively wiped out, simply because parties’ political programs are not differentiated anymore. In this paper, we intend to show that this tendency is reinforced due to the role played by advertising on the opinions’ image that the press editors are led to display to their readers.

A particular feature of the press industry is that its profitability depends in a crucial way on financing an important fraction of its activities by advertising receipts. As with several other media, the burden of fixed costs is so heavy in this industry that it would not be able to survive without the advertising manna. Accordingly, most newspapers are sold twice: First to the readers who buy the editorial content of the newspaper – political information, comments and entertainment –, and then to the industrial firms and professional advertisers who buy advertising space to promote their products or the products of their customers.¹

The first source of financing calls for some matching between the political ‘image’ presented by the editor of a newspaper, and the political preferences of

¹ Newspapers’ dependence on advertising revenues varies across countries. For instance, in Europe, the percentage of newspapers’ revenues originating in advertising ranges between 40% and 50%: 40% in France, 45% in Spain and 50% in the ‘Nordic region’, see Albarran and Chan-Olmsted (1998) and Picard et al. (1988). In the United States, this percentage can even reach 80%.

his readers. Otherwise they could be tempted to buy the newspaper supporting the opposite opinion since the latter becomes a closer substitute to the former. On the other hand, the second source of financing, relying on advertising receipts, requires a sufficiently sizable readership in order to make the newspaper attractive as a media support for the advertisers: The impact of the advertising message increases with the size of the audience. It turns out, however, that confirming the political preferences of the readers in order to stabilize his readership may well have a negative impact on the advertising revenues of the editor. Take, as an example, a newspaper politically targeted to the left. If the editor decides to present his leftist ideas in a too extreme manner, confirming thereby the political preferences of his extreme left readership, he may well lose his customers who are closer to the centre, to the benefit of his rightist competitor! The resulting reduction of his market share makes him less attractive to the advertisers: The advertising messages promoting their products have now a weaker impact. On the contrary, the rightist competitor, now enjoying a larger audience, becomes more appealing to the advertisers! This dependence of advertising receipts on the political image displayed by the editors may lead them to moderate the political message of their newspapers.² This tendency must be expected to be particularly significant when the readers do not give too much weight to the political content of the newspaper, or when advertising receipts are strongly correlated with the size of the readership.

The present paper develops the above ideas in the framework of a sequential game involving two editorial firms, their readers and the advertising agencies buying advertisements to be inserted in their newspapers. The players of the game are the editors. The set of political opinions – out of which they select their political image in the first-stage game – is represented by the unit-interval. It gives rise to a Downs–Hotelling-like location model, in which the prices of the newspapers are then chosen by the editors in the second-stage of the game, assuming that the readers incur costs which are quadratic in the difference between their ‘ideal’ political option and the political options selected by the editors.³ The novelty here is that a third-stage is introduced, through which the editors now decide non-cooperatively about the advertising tariffs they will propose to the advertisers. The resulting advertising receipts are then taken into account in the previous price game, influencing accordingly the values of equilibrium prices. This, in turn, feeds back to the opinion selection process performed by the editors in the first-stage of the sequential game. Without the last-stage involving the editors and the advertisers, the above game is nothing else than the classical Hotelling’s location model with quadratic transportation

² Ray (1952) calls the ‘middle of the road policies’ the resulting political images proposed by the editors.

³ An analysis of competition among newspapers using the Hotelling’s location model has been already proposed by Schultz and Weimann (1989).

costs, for which it is known that, at the perfect equilibrium, firms locate at the extremities of the linear market (see d'Aspremont et al., 1979). In our analogy, it would mean that the editors would select the most leftist and rightist opinions corresponding to the extremities of the opinions' interval. We show that the introduction of advertising revenues via the third-stage completely upsets the above prediction of the model in a wide range of situations: *far from selecting a display of the extreme opinions, the editors tend to present a similar centrist image to their readers*. These situations are precisely those in which the readers do not give much weight to their political preferences or when advertising receipts are sufficiently significant.

It is now easy to understand how the development of press advertising can contribute to the ascent of the *Pensée Unique*. Being progressively more exposed to rather bland political opinions, newspapers' readers are led to adopt weak political preferences, reinforcing thereby the editors' tendency to display weak political images in view of garnering higher advertising receipts. This self-feeding process spontaneously develops homogeneous political preferences through the population, which is the essence of the *Pensée Unique* context.

2. The model

We consider a model with two editorial firms, producing each a newspaper at a unit cost per copy, c , $c > 0$, and selling advertising insets to announcers in view of promoting their products. The newspapers are sold to the readers who select to patronize one of the two newspapers, to the exclusion of the other. These readers have varying political opinions ranging from the extreme left to the extreme right. To represent this diversity among readers' opinions, we suppose that the set of opinions is the unit interval $[0, 1]$, with 0 corresponding to the most extreme left opinion and 1 to the most extreme right one, intermediate opinions being ranked in the interior of the unit interval along the left–right spectrum. To each opinion there corresponds a specific reader for whom that opinion is the 'ideal' one. The farther the newspaper's opinion from this ideal point, the higher the disutility of this specific reader. More precisely, we shall suppose that this disutility is measured by

$$tx_i^2 + p_i, \quad (1)$$

where x_i represents the 'distance' between the opinion effectively selected by newspaper i , and the 'ideal' opinion of the reader; p_i denotes the price of newspaper i , $i = 1, 2$. The parameter t thus measures the intensity of readers' political preferences, while the disutility of not obtaining their 'ideal' opinion varies as the square of the distance between their ideal opinion and the opinion effectively selected by the newspaper. In the sequel, the parameters a and b will denote the distance between the extreme opinions 0 and 1, and the opinions

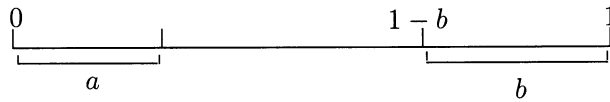


Fig. 1.

chosen by editors 1 and 2, respectively: the editor of the left-opinion (resp. right-opinion) newspaper accordingly chooses the opinion represented by point a (resp. $1 - b$), as depicted in Fig. 1.

The ads insets are bought by advertising agencies from the editors of the newspapers at prices s_i , $i = 1, 2$. A particular advertiser is represented by a parameter θ , $\theta \in [0, 1]$, which expresses the intensity of its preferences for buying an inset in a newspaper. We suppose that the intensity θ for buying an inset in newspaper i , $i = 1, 2$, is multiplied by the *audience* of newspaper i , namely, by the mass of readers buying this newspaper: the larger the audience, the higher the desirability of buying an ad in the corresponding newspaper, since the larger the number of potential consumers who will perceive the advertising message. It follows that the utility for buying an inset in newspaper i for an advertiser of type θ is measured by

$$n_i \theta - s_i, \quad i = 1, 2, \quad \theta \in [0, 1], \tag{2}$$

with n_i representing the number (mass) of readers who buy newspaper i . In the sequel, we suppose that each advertising agency may select one among the three following possibilities: (i) to advertise in neither newspaper; (ii) to advertise in a single newspaper; (iii) to advertise in both. In the latter case, we suppose that its utility is measured by

$$n_1 \theta - s_1 + n_2 \theta - s_2. \tag{3}$$

Finally, we suppose that the density of advertisers' population of type θ is constant and equal to $4k$, $\theta \in [0, 1]$.

Notice that this representation of advertisers' population and of their preferences is reminiscent of the well-known model of *vertical product differentiation*, in which firms sell products which are differentiated by their quality (see Gabszewicz and Thisse, 1979). As in this model, if we assume for instance that $n_2 \geq n_1$, an inset in newspaper 2 gives a higher utility than an inset in newspaper 1 to all advertisers. However, when this model is used in industrial economics, it is generally assumed that consumers make mutually exclusive purchases: they buy one variant of the product, at the exclusion of the other. Here we suppose that advertisers may buy insets in *both* newspapers.

In the next section, we analyse the subgame perfect equilibrium of the following three-stage game played by the editors. In stage 1, each editor selects the opinion represented by his newspaper: point a for the editor of the left

opinion-newspaper, and point $1 - b$ for the editor of the right one. In the second-stage, they select the prices p_1 and p_2 of newspapers 1 and 2, respectively. Finally, in the third-stage, they choose the advertising tariffs s_1 and s_2 to be proposed to the advertising agencies.

3. Equilibrium analysis

As just stated at the end of the preceding section, the strategies for the editors in this *third-stage game* are the tariffs s_1 and s_2 . The opinions a and $1 - b$ have been already selected in stage 1, while prices $p_1(a, b)$ and $p_2(a, b)$ of the newspapers have been chosen in stage 2. To these prices correspond the audiences $n_1 = n_1(p_1(a, b), p_2(a, b))$ and $n_2 = n_2(p_1(a, b), p_2(a, b))$ of newspapers 1 and 2, respectively. It is easy to derive from the above assumptions about advertisers preferences the demand function D_i for advertising insets in newspaper i , namely

$$D_i(s_1, s_2) = 4k \cdot \left(1 - \frac{s_i}{n_i}\right) \quad \text{for } i = 1, 2$$

with corresponding receipts

$$R_i(s_1, s_2) = 4k \cdot \left(1 - \frac{s_i}{n_i}\right) \cdot s_i, \quad i = 1, 2. \quad (4)$$

We notice that the receipts of editor i do not depend on the tariff s_j selected by his rival j , and vice versa, so that the game between the editors on the advertising market is 'degenerate': each editor i behaves as a monopolist and selects independently the equilibrium tariff $s_i^* = n_i/2$, leading to the equilibrium receipts

$$R_i(s_1^*, s_2^*) = kn_i. \quad (5)$$

In the *second-stage game*, the editors use as strategies the prices $p_1(a, b)$ and $p_2(a, b)$. As above, we suppose that the opinions a and $1 - b$ have been already selected in stage 1 and derive the profits functions of the editors when the advertising receipts determined in the third-stage game are integrated in these profits. Taking (1) into account, the demand functions $n_i(p_1, p_2)$ are easily derived, namely

$$\begin{aligned} n_1(p_1, p_2) &= 0 \quad \text{if } a + \frac{p_2 - p_1}{2t(1 - a - b)} + \frac{1 - a - b}{2} < 0 \\ &= a + \frac{p_2 - p_1}{2t(1 - a - b)} + \frac{1 - a - b}{2} \\ &\quad \text{if } 0 \leq a + \frac{p_2 - p_1}{2t(1 - a - b)} + \frac{1 - a - b}{2} \leq 1 \end{aligned}$$

$$\begin{aligned}
 &= 1 \quad \text{if } 1 \leq a + \frac{p_2 - p_1}{2t(1 - a - b)} + \frac{1 - a - b}{2}; \\
 n_2(p_1, p_2) &= 0, \quad \text{if } b + \frac{p_1 - p_2}{2t(1 - a - b)} + \frac{1 - a - b}{2} < 0 \\
 &= b + \frac{p_1 - p_2}{2t(1 - a - b)} + \frac{1 - a - b}{2} \\
 &\quad \text{if } 0 \leq b + \frac{p_1 - p_2}{2t(1 - a - b)} + \frac{1 - a - b}{2} \leq 1 \\
 &= 1 \quad \text{if } 1 \leq b + \frac{p_1 - p_2}{2t(1 - a - b)} + \frac{1 - a - b}{2}.
 \end{aligned}$$

The corresponding profits Π_i , $i = 1, 2$, are given by

$$\Pi_i(p_1, p_2) = (p_i + k - c)n_i(p_1, p_2) \tag{6}$$

when the equilibrium advertising receipts $kn_i(p_1, p_2)$ have been integrated. Consequently, the second-stage game we analyse is equivalent to a spatial competition model with quadratic transportation costs, when a constant unit subsidy equal to $k - c$, – the difference between the unit receipt originating from advertising sales and the unit production cost of each copy of the newspaper – is added to the price. The reaction functions corresponding to the price game are given by

$$p_1 = \max\{0, \frac{1}{2}(c - k + p_2 + t - 2tb + tb^2 - ta^2)\}, \tag{7}$$

$$p_2 = \max\{0, \frac{1}{2}(c - k + p_1 + t - 2ta + ta^2 - tb^2)\}. \tag{8}$$

It turns out that these reaction functions are piecewise linear; their intersection defines, for each first-stage strategic selection (a, b) , the Nash equilibrium $(p_1^*(a, b), p_2^*(a, b))$ of the second-stage price game as a function of the unit cost c per copy of the newspaper, the density k of each type of advertisers and the intensity t of readers’ political preferences.

Now, using the equilibrium prices we have just derived, we analyse the *first-stage game*. In this game, the editors select the opinion which identifies their newspaper, taking into account the effects of their choice on ensuing competition in price and advertising tariffs. Payoffs in the third-stage game obtained from substitution of the equilibrium values $p_1^*(a, b)$ and $p_2^*(a, b)$ in the payoffs (6) of the second-stage game. It can be shown that two pairs of strategies (a, b) can result as equilibrium pairs in the first-stage game, according to the values of k, t and c , as stated in the following propositions.

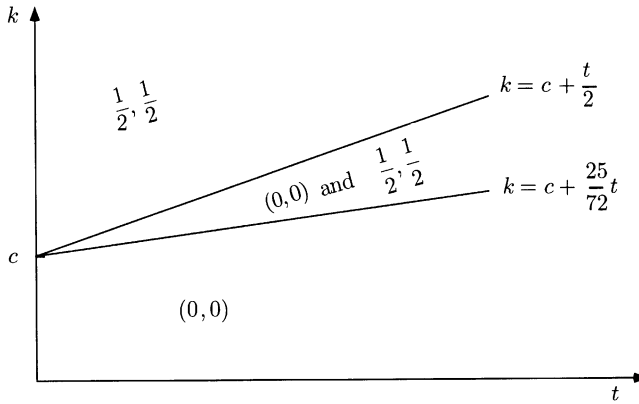


Fig. 2.

Proposition 1. The pair of strategies $(a^, b^*) = (0, 0)$ is a Nash equilibrium of the opinion game if, and only if*

$$k \leq c + \frac{t}{2}. \tag{9}$$

Proposition 2. The pair of strategies $(a^, b^*) = (0.5, 0.5)$ is a Nash equilibrium of the opinion game if and only if*

$$k \geq c + \frac{25t}{72}. \tag{10}$$

We notice that, in the domain $c + 25/72t \leq k \leq c + t/2$, both $(0, 0)$ and $(0.5, 0.5)$ are equilibria in the first-stage game. Notice however that the Nash equilibrium $(0, 0)$ Pareto-dominates the equilibrium $(\frac{1}{2}, \frac{1}{2})$ in this domain. Fig. 2 represents the Nash equilibrium in the (k, t) -plane.

As expected, the equilibrium $(0, 0)$ leading to a maximal opinion differentiation between the two newspapers, obtains when the unit receipt k from advertising is small, while the intensity of readers' political preferences t is high ($k < c + (25/72)t$). Conversely, minimal opinion differentiation must be expected in the reverse case (weak political preferences and high unit advertising receipts). It should be noticed that when the equilibrium in the opinion game is $(\frac{1}{2}, \frac{1}{2})$, the resulting equilibrium newspapers' prices in the second-stage game are zero. Even if zero newspapers' prices are not generally observed, one must recognize that the tendency for alternative medias to supply consumers with free services is nowadays frequent. For instance, consumers can read free of charge newspapers or abbreviated versions of them on Internet. Similarly, some telephone companies provide consumers with free of charge lines provided that they accept

advertising interruptions during their connections! Such practices reveal that advertising receipts become so important that they justify to provide these services free of charge, simply in order to utilize them as advertising supports. It is a similar phenomenon which is reflected in the fact that newspapers are provided free of charge at equilibrium. Thus we conclude that the introduction of the last stage advertising game has considerable consequences on the equilibrium of the opinion game. Indeed, without the third-stage game, maximal opinion differentiation would arise for all values of k and t : the quadratic ‘transportation’ costs imply, indeed, that at the perfect equilibrium, candidates would locate at the extremes of the opinions’ interval. As shown in the above proposition, this tendency is fully reversed when political preferences are weak or when unit advertising receipts are sufficiently high.

4. Conclusion

Information press is one among the major vectors of media’s ideological messages. In particular, daily newspapers and news magazines are meant to reflect the citizens’ political opinions. Conversely, these opinions are shaped through the editorial options of their editors. However, the ideological messages which newspapers convey to their readers interfere with the advertising messages promoting commercial products, which are simultaneously addressed to them. Editors are constrained to accept these interferences in order to guarantee a level of total receipts which is high enough to cover their fixed costs. Advertising induces editorial firms to compete for a maximal audience: Advertising receipts are all the more significant that the size of the readership is large. As shown in this paper, the price to be paid by the editors in order to sell a larger audience to the advertisers, may well force them to sell tasteless political messages to their readers. This in turn constitutes the ferment of the *Pensée Unique*, through which citizens’ political opinions are uniformly leveled. It should be pointed out that, in our approach, advertisers do not influence directly the editorial content, as it would be the case when an editor is constrained to conform his editorial views with those dictated by some major advertiser ‘sponsoring’ the newspaper. Their influence here is only indirect: It operates through the competition among the editors, who wish to increase the audience each of them is willing to sell to advertisers.

The main difference between the selection of policies by candidates competing in an election and the selection of a political image by newspapers’ editors lies in the fact that the latter must also choose the price of the newspaper and eventually the tariff to be opposed to the advertisers. In other words, the game which has political candidates as players is a one-shot game with strategies consisting only in choosing a specific political platform. The equilibrium of this game is known to be at the centre (the median voter theorem). The game played

by newspapers' editors is by essence a *sequential* game. If this game is as in Hotelling (1929), in which firms choose sequentially their location and then their price, the perfect equilibrium of the game depends on the selected transportation cost function. In the case of linear transportation costs, there is a large domain of locations, in which no perfect equilibrium exists. If costs are quadratic, then a perfect equilibrium *always* exists, but firms (or editors) locate at the extremes of the locations' (opinions') set (see d'Aspremont et al., 1979). When a third-stage game is played between the editors to determine the advertising tariffs, the perfect equilibrium comes back to the centre when political preferences are weak or when unit advertising receipts are high.

The story considered in this paper is reminiscent of candidates' behaviour when they have to settle their political platform before competing in an election. In order to influence voters who are uninformed about their policy, they need the money manna provided by their interest groups, the amount of which increases as the selected political position gets closer to their partisan interests. But, at the same time, informed voters whose vote is based on the selected political position itself, could be thereby diverted, and would prefer to cast their votes on the rival candidate if the latter would behave in a less partisan manner. Finally, the platform which is effectively proposed, is the result of the trade-off between choosing a platform which attracts funds and a policy which attracts the informed voters (see Baron, 1994).

It should also be noticed that the softening of political opinions is not the only device used by editorial firms in view of increasing their readership's market share so as to please to their advertisers. Diversification of their editorial content, introduction of cultural supplements, presentation of TV-programs are alternative methods for attracting readers who are less concerned by the specific political ideas of the newspaper than by its 'objective' informational content. This also contributes to enhance a kind of political neutrality among newspapers since the pages devoted to these alternative contents are inevitably substituted to those previously dedicated to political analysis.

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References

- Albarran, A.B., Chan-Olmsted, S.M., 1998. *Global Media Economics*. Iowa, State University Press, Ames, IA.

- Bagdikian, B.H., 1992. *The Media Monopoly*, 4th Edition. Beacon Press, Boston.
- Baron, D.B., 1994. Electoral competition with informed and uninformed voters. *American Political Science Review* 88, 33–47.
- d'Aspremont, C., Gabszewicz, J.J., Thisse, J.-F., 1979. On hotelling's stability in competition. *Econometrica* 47, 1145–1150.
- Gabszewicz, J.J., Thisse, J.-F., 1979. Price competition, quality, and income disparities. *Journal of Economic Theory* 20, 340–359.
- Hotelling, H., 1929. Stability in competition. *Economic Journal* 39, 41–57.
- Picard, R.G., McCombs, M.E., Winter, J.P., Lacy, S., 1988. *Press Concentration and Monopoly*. Ablex Publishing Corporation, Norwood, NJ.
- Ray, R., 1952. Economic forces as factors in daily newspaper concentration. *Journalism Quarterly* 29, 31–42.
- Schultz, N., Weimann, J., 1989. Competition of newspapers and the location of political parties. *Public Choice* 63, 125–145.