

Is there a social multiplier?

Measuring the impact of social norms on policy interventions about food consumption

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The growing awareness about the ill effects of unhealthy diets has led to the development of policy measures to incentivize healthy eating. These policies have traditionally been led from the *supply* side, by banning certain ingredients, mandating the content of sugar, salt, and other *bad* nutrients in recipes, and by regulating the producers. More recently, policies have also impacted the *demand* side of the economy, both through economic incentives (taxes and subsidies) and, more recently, through behavioral interventions, as the introduction of front-of-pack color labels, or campaigns like the five-a-day rule in the UK.

The impact of these policies has been measured in several dozens studies, usually using self-reported answers by consumers, and, in some cases, using incentivized designs to elicit the willingness to pay of subjects under different conditions. A classic design in experimental economics is to expose the subjects to a product, elicit the willingness to pay for it through an incentive compatible mechanism as the Becker-DeGroot-Marschak random price mechanism or N^{th} -price auctions, then reveal information on the product, e.g. by adding a nutritional label, or revealing its fair trade or organic nature, and then asking for the WTP again.

These experimental designs allow the researchers to properly measure preferences in different information contexts, and can give clear results as to the marginal value consumers attach to non-hedonic characteristics of the food being investigated, like its origin, the processes employed to produce it, the welfare of the workers and/or animals involved in its production, etc. At the same time, though, they rely on the tacit assumptions that preferences are of a fixed and individual nature. That is, by following the traditional assumption in economics of methodological individualism, they exclude *by design* the possible social, collective formation of food preferences.

But food preferences are eminently socially constructed. Society and culture define what is edible, what is appropriate, what is available and what is perceived as *tasty*. Moreover, peer effects play an important role in shaping food choices. Consumers might make different choices if they eat on their

own or in a social context, or if their choices are or not observed by their peers. Irrespective of the mechanism followed to impact choices, a literature on peer effect in food choice has recently emerged. For instance, social image concerns have been shown to influence the WTP for fair trade chocolate (Teyssier et al. 2014). Moreover, consumers' WTP might be influenced by the will to conform to a social norm and/or to imitate other members of a group (Salazar and Oerlemans 2015).

In this paper we go one step further: we investigate if the presence of peers in food choices can have a multiplier effect on food policies. Policies do not happen in the void, but in a structured social context, in which peer effects are likely to play a role. The introduction of a policy – say, a nutritional label – in the lab might have different measured impact if the change in WTP is measured in isolation, or if subjects are made aware of the reaction of others to the policy. Via repeated interaction, a *social norm* can appear in the laboratory, and this norm can shape behavior and alter the effects of the policy.

Methodologically, we merge in this paper two different strands of applied experimental economics. On the one hand food policies are traditionally evaluated using repeated WTP elicitation; on the other hand, the effect of peer effects on WTP is investigated using minimal group paradigms and exposure of one's choice to the peers. In this paper we expose subjects to a product and elicit their WTP (using BDM) first in isolation, and then allowing the subjects to observe the (real) decision at t-1 of a randomly created group; we let subjects repeat the task for 4 periods, in order to leave room for a social norm to emerge. We then introduce a policy – in the form of an information shock – and repeat the procedure once more.

This design allows us to observe how the policy affects WTP in a richer way than with traditional designs. As in standard WTP experiments, we observe the *level* shift in WTP, by computing the difference between the WTPs stated before and after the information shock. But we can also measure the *convergence* of the WTP within the group, both before and after the shock. The *slope* of this convergence gives us the *speed* with which a consensus is formed within the group. This speed can be different before and after the introduction of the policy. We can hence measure the degree of *conformism* of each group – the degree of convergence to a common WTP within the group, as well as how this degree of conformism interacts with the policy to generate the final WTP.

We compare this 'social' treatment with an isolated situation. Comparing the effects of the policy between the isolated subjects and the ones exposed to peers gives us a measure of the *social multiplier effect* of the policy – that is, how much more (or less) effective is an information policy on a food item if we take into account social interactions or not.

We apply this method to a dark chocolate bars, largely consumed product that is usually liked by most people, and, if not, has a high exchange value. Subjects repeatedly state their WTP for the bar in a social context, and then receive a *positive* or *negative* information shock, in the form of information on the bar being (or not) labeled 'AB', the French label for *organic* food. We use an incentivized design, in which, according to their bid and the randomly determined price, subjects actually buy the chocolate bar at the end of the experiment.

Preliminary results show that conformism is rather strong, and stronger before than after the exposure to the information shock, showing that consumers 1) rely on the peers mainly when they lack relevant information about the product, and 2) have strong priors about the premium they give to organic food, and tend to stick with them. The impact of *positive* information about the organic nature of the product is, in line with the literature, positive.

References

Teyssier, S., Etilé, F, and Combris, P, (2014) *Social- and self-image concerns in fair-trade consumption*, European Review of Agricultural Economics.

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