DEBIAISING THROUGH LAW AND THE FIRST AMENDMENT

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Law often compels the disclosure of information in particular—and, increasingly today, in visual—forms. Some judges conclude that such modern disclosure requirements break with the First Amendment interest in ensuring that consumers are "well informed." This Article brings an empirically dedicated perspective to such judicial analyses and provides a specific delineation—for three existing legally required visual communications—of data and tools that facilitate evidence-based assessment of the degree to which consumer perceptions are factually accurate in the presence versus the absence of such legally required visual communications.

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INTRODUCTION

Both within and beyond markets, law is pervasively concerned with the availability and structure of information.1 In markets, an inadequate level of informedness about potentially harmful products or services may, if such inadequacy goes unremedied, support legal constraints on otherwise valuable product and service offerings.2 Accordingly, remedies that increase consumers’ level of informedness—by expanding the topics on which information is made available;3 by “debiasing through law”;4 or by other measures5—while leaving consumers “free to make their own choices” typically represent an appealing approach for law.6 If, for instance, consumers defaulting on mortgages typically believed at mortgage initiation that the defaults that might occur among other borrowers would not happen to them,7 then a communication debiasing such overoptimistic perceptions would frame an important alternative to banning a particular mortgage product. Skepticism of debiasing through law and other informedness-focused remedies thus has the potential to push toward costly and choice-reducing bans on products and services.8

In an increasingly interconnected world legal order, informedness-focused remedies have a vital capacity to bridge not only differences among individuals within a given legal jurisdiction but also diverse national legal frameworks and cultures. Allowing consumers, once adequately informed, to “protect themselves according to personal preferences” rather than “plac[ing] on regulators the difficult task of compromising diverse preferences with a common standard”9 for a product or service may be nearly imperative on the world stage. Legally required disclosures—such as similar visual warnings for tobacco products in Australia, Belgium, Brazil, Brunei, Canada, Chile, Colombia, the Cook Islands, Djibouti, Egypt, Hong Kong, India, Iran, Jordan, Latvia, Malaysia,


2. See, e.g., Beales, Craswell & Salop, supra note 1, at 513.


5. See, e.g., Beales, Craswell & Salop, supra note 1, at 495-501 (discussing the law of deceptive advertising).

6. Id. at 513.


8. See, e.g., M. Ryan Calo, Against Notice Skepticism in Privacy (and Elsewhere), 87 NOTRE DAME L. REV. 1027, 1028-29 (2012) (referencing the use of “‘command-and-control’ regulations” if mandated disclosure is rejected).

Mauritius, Mexico, Mongolia, New Zealand, Pakistan, Panama, Paraguay, Peru, Romania, Singapore, Switzerland, Taiwan, Thailand, Turkey, the United Kingdom, Uruguay, and Venezuela—span a startlingly diverse set of national legal systems.10

Standing apart from other countries’ legal structures, American constitutional law channels and shapes debiasing through law and other informedness-focused remedies. In the United States, legally required communications may unconstitutionally compel commercial speech under a fiercely contested First Amendment framework.11 As many commentators have noted with respect to such legally required communications, a recent uptick in First Amendment invalidation of the communications both threatens to diminish an internationally vaunted form of regulation12 and opens the door to product and service bans that are themselves difficult to challenge on First Amendment grounds.13

The recent invalidations, this Article suggests, have rested on a flawed approach to First Amendment analysis of the degree to which consumers are “well informed.”14 To a greater extent than at present, the First Amendment investigation into the capacity of a legally required communication to “dissipate the possibility of consumer confusion or deception”15 should be treated as an empirical rather than, as in the typical court decision, a conceptual or analytic inquiry. The Article grounds the case for such an empirical component of informedness analysis in a specific delineation—for three existing legally required communications—of data and tools that facilitate evidence-based assessment of the degree to which consumer perceptions are factually accurate in the presence versus the absence of the legally required communication.16 When available, empirical evidence has a role to play in assessing whether a legally required communication helps to debias individuals’ overoptimistic or other-


16. See infra Parts I.B, II.B.
wise factually inaccurate perceptions and, thus, render “customers . . . in-
formed.”17

As the discussion below suggests, the significance of empirical assessment of informedness effects of legally required communications is likely to be particularly great in the case of legally required visual communications, such as the pictorial depictions of tobacco’s health effects in the long list of countries provided above and—prior to the Department of Justice’s decision not to seek Supreme Court review of the invalidation of visual tobacco warnings on First Amendment grounds18—in the United States. Complementing the extensive scholarly attention to visual tobacco warnings,19 Part I below draws on current law to provide a series of nontobacco illustrations of legally required visual communications whose effects on the degree to which consumers’ perceptions are factually accurate may be assessed with extant empirical data.

Part II offers a general typology of modes of assessing informedness effects of communications; it then discusses at length the available data on the informedness effects of the legally required visual communications described in Part I. The evidence provides some support for the conclusion that the visual elements of such communications enhance the degree to which individuals’ perceptions of matters addressed by the communications are factually accurate. In the settings of these legally required communications, visual elements can debias.

Part III, building on Part II, urges that the negative judicial treatment of some legally required visual communications in recent First Amendment case law is inadequately theorized. Such treatment of legally required visual communications also has disquieting spillover effects, described in Part III, on the structure and direction of First Amendment analysis of legally required communications more generally.

banc).
18. Letter from Eric Holder, Att’y Gen., to John Boehner, Speaker, U.S. House of
19. See, e.g., Bonnie, supra note 13, at 600-01, 609-10, 612-17; Caroline Mala Corbin,
Compelled Disclosures, 65 Ala. L. Rev. 1277, 1309-24 (2014); Nathan Cortez, Do Graphic
Tobacco Warnings Violate the First Amendment?, 64 Hastings L.J. 1467, 1468-96 (2013);
Goodman, supra note 12, at 531-67; Keighley, supra note 12, at 575-88; Post, supra note 12,
at 907-09; Allen Rostron, Pragmatism, Paternalism, and the Constitutional Protection of
Commercial Speech, 37 Vt. L. Rev. 527, 565-74 (2013); Nat Stern, Graphic Labels, Dire
Warnings, and the Facile Assumption of Factual Content in Compelled Commercial Speech,
29 J.L. & Pol. 577, 581-84, 587-97 (2014); Rebecca Tushnet, More than a Feeling: Emotion
I. LEGALLY REQUIRED VISUAL COMMUNICATIONS: THREE EMPIRICALLY MOTIVATED ILLUSTRATIONS

The present Part develops three illustrations of legally required visual communications in and beyond the United States. To lay the groundwork for these illustrations, it first defines “visual.”

A. “Visual” Communications Defined

Although it is possible to categorize written or printed text as “visual” or “picture-like,” the analysis here—parallel to the First Amendment case law discussed in Part III—treats material that is either pictorial (containing photographic or drawn images) or evocative of photographic or drawn images as “visual.” An example of the latter category, discussed in Parts I.B.3 and II.B.3 below, is a “nutrition traffic light” on food packaging with red to signal “brake,” amber to signal “proceed with caution,” and green to signal “go.” Elements of the visual appearance of textual statements—including not only the words used but also the letter color, size, and font style—are not “visual” for purposes of the analysis here.

B. Three Illustrations of Legally Required Visual Communications

Given the “visual turn” in recent years, the large and variegated set of legally required visual communications on labels, in workplaces, and elsewhere (even in offices of medical personnel who perform abortions) is no surprise. Within this broad set, the present analysis develops three illustrations of cases in which existing empirical evidence, detailed in Part II.B, provides some identification of the effects of the legally required visual communication on consumers’ level of informedness. Although there is a large body of empirical evidence on visual communications’ various effects, many of the studies—notwithstanding the emphasis of much legal analysis on whether consumers are “informed”—primarily address outcomes other than informedness. This

21. Id. at 13-14.
24. See, e.g., Gerda I.J. Feunekes et al., Front-of-Pack Nutrition Labelling: Testing Effectiveness of Different Nutrition Labelling Formats Front-of-Pack in Four European Countries, 50 Appetite 57, 60 (2008) (presenting responses to questions such as “How much do you like the health indicator on this product?” and “How credible is this health indicator to you?”) (internal quotation marks omitted); David L. Mayer, Identifiability and Effectiveness of Graphic Symbols Used in Warning Messages 68-69 (Apr. 1990) (unpublished M.A.
Article turns the focus to legally required visual communications’ effects on the degree to which consumer perceptions are factually accurate.

1. Skull and crossbones

Two decades ago, the United Nations initiated a far-reaching effort to harmonize chemical hazard communications around the world.25 The resulting Globally Harmonized System of Classification and Labelling of Chemicals (GHS) relies prominently on the use of visual elements in communicating hazards.26 The skull and crossbones in Figure 1, used in the GHS to signal chemical toxicity, is a notable example of such an element.27

In 2012, after a massive rulemaking proceeding,28 the Occupational Safety and Health Administration (OSHA) incorporated the skull and crossbones and other GHS elements into the regulatory framework governing workplaces in the United States.29 As indicated in Figure 1, the implementation of the GHS skull and crossbones specifies not only the specific pictorial material to be used but also the colors required in the communication.30

FIGURE 1

[Diagram showing a diamond-shaped label with skull and crossbones inside, bordered in red and pictorial material in black]
The Consumer Product Safety Commission likewise mandates the use of the skull and crossbones in certain circumstances. Federal regulations require, for instance, that products containing more than threshold levels of methyl alcohol or benzene be marked with the skull and crossbones alongside the textual warnings of “poison” and “danger.”

2. Protective goggles, mask, and gloves symbols

In the European Union, whose member countries represent dozens of different native languages, workplaces requiring protective gear must display visual communications alerting workers to the need for the gear. With respect to protective goggles, masks, and gloves in the workplace, illustrative legally required visual communications are shown in Figure 2.

As in the case of the GHS in the United States, the legal requirement of protective goggles, mask, and gloves symbols includes reference to the colors required in the visual communications. These symbols must feature a blue background and present pictorial material in white. As Figure 2 reveals, modest variation is permitted in the specific pictorial material used in these legally required communications.

32. Id. § 1500.14(b)(3).
34. Id. (left-hand symbols in Figure 2); Brady Vinyl Mandatory Eye Protection Sign, 50 x 50mm, RS, http://uk.rs-online.com/web/p/mandatory-signs-labels/1578548 (last visited June 8, 2015) (right-hand upper symbol in Figure 2); Mandatory Safety Sign—Mask 011, SIGNBUYER.CO.UK, http://www.signbuyer.co.uk/mandatory-safety-sign—mask-011-641-p.asp (last visited June 8, 2015) (symbol in middle row and column in Figure 2); Brady PET Mandatory Respiratory Protection Sign, RS, http://uk.rs-online.com/web/p/mandatory-signs-labels/1792615 (last visited June 8, 2015) (right-hand middle symbol in Figure 2); Brady Vinyl Mandatory Protective Gloves Sign, 50 x 50mm, RS, http://uk.rs-online.com/web/p/mandatory-signs-labels/1578504 (last visited June 8, 2015) (right-hand lower symbol in Figure 2).
35. 1992 O.J. (L 245) at 31.
3. Nutrition traffic lights

Obesity, a concern around the world, has recently generated a wave of public policy initiatives in Latin America. Countries in the region have mandated food labels alongside other antiobesity actions. Ecuador—where nearly two-thirds of the nonelderly adult population is estimated to be overweight—has mandated “nutrition traffic lights” categorizing foods as “red” (high/brake), “amber” (medium/proceed with caution), or “green” (low/go) on the nutritional

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37. See, e.g., Amy Guthrie, Junk Food Feels the Heat in Latin America, WALL ST. J. (Dec. 27, 2013, 4:22 PM ET), http://on.wsj.com/1T9fvBp (noting the new Ecuadorian nutrition traffic lights and other recent policy initiatives).

38. See Tegel, supra note 36.
elements of fat, salt, and sugar. An example of Ecuador’s traffic lights appears in Figure 3 below.

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**FIGURE 3**

Red color indicating high fat level  
Red color indicating high salt level  
Green color indicating low sugar level

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The nutrition traffic lights in force in Ecuador have received extensive study in the United Kingdom, as discussed in Part II.B.3 below. In comparison to the examples of legally required visual communications discussed in Parts I.B.1 and I.B.2—examples in which colors on labels were legally prescribed but were not a central focus—the “brake,” “proceed with caution,” and “go” colors are central to Ecuador’s nutrition traffic lights.

II. INFORMEDNESS EFFECTS OF LEGALLY REQUIRED COMMUNICATIONS

Legally required communications such as those described in Part I generally seek to increase the degree to which individuals’ perceptions of the attributes of a given product, service, or other offering—the presence of a potential chemical hazard; the existence of a protective gear requirement at work; the levels of fat, salt, and sugar in a food—are factually accurate. This Part addresses the leading conceptions—and especially the empirical assessment—of the informedness effects of both legally required and other communications.

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39. See Guthrie, supra note 37.
A. Communications’ Effects

Consider a person who hears the following Kraft commercial, which was the subject of a Federal Trade Commission (FTC) proceeding in the 1990s: “I admit it. I thought of skimping. Could you look into those big blue eyes and skimp on her? So I buy KRAFT Singles. Imitation slices use hardly any milk. But KRAFT has five ounces per slice. Five ounces. So her little bones get calcium they need to grow.” 41 What message does this communication convey to the listener about the factual question of the calcium content of Kraft versus “imitation” brands’ slices?

One can imagine several ways of answering this sort of question. Under a literal approach, the Kraft communication did not convey the message that Kraft slices contain more calcium than “imitation” slices do because the literal terms of the communication are not logically inconsistent with Kraft and “imitation” slices containing comparable amounts of calcium (which in fact they did, as the “imitation” slices got their calcium from sources other than milk42). Under a legal-pragmatic approach, the communication conveyed the message that Kraft slices contain more calcium than “imitation” slices do because an authoritative legal decisionmaker—in this case, the FTC—determined that a reasonable consumer would view the communication as carrying this message.43 Finally, under an empirical approach, the communication conveyed the message that Kraft slices contain more calcium than “imitation” slices do to the extent that empirical evidence on the effects of Kraft’s language, or similar language in a related context, suggests that listeners hearing the communication often will in fact believe that Kraft slices contain more calcium.44

Not surprisingly, the literal, legal-pragmatic, and empirical approaches to a communication’s import may often produce different answers with regard to the much-discussed visual tobacco warnings noted in the Introduction.45 At a broad level, the literal approach sits somewhat uncomfortably with the interpretation of visual material in a communication, for at least with respect to some such material, it is unclear exactly what a “literal” interpretation is. In the tobacco warnings litigation, the United States District Court for the District of Columbia displayed a form of literalism in complaining, with reference to the

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43. See id. at 128-29; see also, e.g., Robert B. Reich, Consumer Protection and the First Amendment: A Dilemma for the FTC?, 61 Minn. L. Rev. 705, 709-10 (1977) (observing that under FTC case law “literal truth is no defense to a charge of deceptive practices if assertions in the advertisement are so combined as to convey a misleading representation on a casual reading”).
44. See In re Kraft, Inc., 114 F.T.C. at 121-22.
45. See supra note 19 and accompanying text.
visual warning shown in Figure 4,\textsuperscript{46} that the inclusion of autopsy staples on the deceased man’s chest suggested—withstanding the textual message “WARNING: Smoking can kill you”—that “smoking leads to autopsies,” and yet, the court remonstrated, the government “provides no support to show that autopsies are a common consequence of smoking.”\textsuperscript{47}

Neither the legal-pragmatic nor the empirical approach would succumb to this sort of literal-leaning interpretive strategy, although such approaches could lead to the court’s bottom-line First Amendment conclusion via a different route.\textsuperscript{48} With respect to the legal-pragmatic approach, visual material might tend to be downplayed in authoritative legal decisionmakers’ assessments of a communication’s import, while text—at the heart of judges’ daily work—would exert an outsized influence; as Rebecca Tushnet remarks in connection with the blank spaces Google Books substitutes for books’ printed images, the blank spaces provide “a perfect if unintentional demonstration of how . . . much of law[] thinks about images, which is to say it doesn’t think much about them


\textsuperscript{47} R.J. Reynolds Tobacco Co. v. U.S. Food & Drug Admin., 845 F. Supp. 2d 266, 273 (D.D.C.), aff’d, 696 F.3d 1205 (D.C. Cir. 2012). But see Am. Meat Inst. v. U.S. Dep’t of Agric., 760 F.3d 18, 22-23 (D.C. Cir. 2014) (en banc) (explaining that “[f]or the extent that” R.J. Reynolds declines to apply the “reasonably related” standard to legally required communications that are not targeted to “correcting deception, we now overrule [it]” (emphasis added)).

\textsuperscript{48} See, e.g., R.J. Reynolds, 696 F.3d at 1217-21 (striking down visual tobacco warnings based on reasoning different from that employed by the district court).
at all, privileging the text.”

Across many contexts, Western legal thought often seeks refuge in “texts and language” in an attempt to counter “the illusory potential of visual perception.”

With respect to the empirical approach, by contrast, the effect of visual (or other) material is a firmly data-driven matter. In the words of the FTC—which utilizes empirical evidence if it concludes under the legal-pragmatic approach that a communication’s meaning was ambiguous rather than, as the agency found in the case of the Kraft commercial, that the communication carried a particular meaning to a reasonable consumer—relevant empirical evidence includes “reliable results from methodologically sound consumer surveys” and “generally accepted principles drawn from market research showing that consumers generally respond in a certain manner to advertisements that are presented in a particular way.”

The empirical approach may be illustrated by reference to the visual tobacco warnings discussed above. A large-scale experimental study in the United States generated data—for adult smokers who viewed either a visual tobacco warning or a warning that included just the textual component of the visual warning—on the likelihood of agreement with the factually inaccurate statement “If I have smoked a pack of cigarettes a day for more than 20 years, there is little health benefit to me quitting smoking.” (The relevant evidence indicates (for instance) that individuals who quit smoking before age 50 have “one-half the risk of dying in the next 15 years compared with continuing smokers” and that the risk of dying is substantially reduced “even among persons who stop smoking after age 70 years.”) The tobacco warning study’s results suggest that smokers who viewed a visual tobacco warning were less likely to agree with the factually inaccurate statement “If I have smoked a pack of cigarettes a day for more than 20 years, there is little health benefit to me quitting smoking” than respondents who viewed a warning containing only the textual component of the visual warning. In the case of the visual warning shown in

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53. See *Required Warnings for Cigarette Packages and Advertisements*, 75 Fed. Reg. 69,524, 69,529 (proposed Nov. 12, 2010).


55. See NONNEMAKER ET AL., supra note 52, app. C2 at 1 tbl.C-1, 4 tbl.C-2, 8 tbl.C-3, 11 tbl.C-4, 14 tbl.C-5, 17 tbl.C-6, 27 tbl.C-9 (presenting results for seven warning groups, of
Figure 5, for instance, smokers viewing the visual warning were considerably less likely to agree with the factually inaccurate statement about the effects of cessation after 20 years of smoking than respondents who viewed only the textual component of that warning (“Tobacco smoke can harm your children”). Under the empirical approach to the level of informedness, visual tobacco warnings produced a higher level of informedness than text-only counterparts.\footnote{See Food & Drug Admin., supra note 46, at 20 (showing image in Figure 5); NONNEMAKER ET AL., supra note 52, app. C2 at 4 tbl.C-2 (reporting estimated odds ratio of 0.431 for the likelihood of agreement among those viewing the warning in Figure 5 compared to the likelihood of agreement among those viewing a text-only counterpart).}

A further comment about the analysis of informedness effects is important. Such analysis does not offer a normative defense of pursuing these effects. Though certainly positive informedness effects are likely to contribute to the achievement of important normative objectives,\footnote{See id. at 54.} it is not automatically the case that such effects correspond to enhanced social welfare or greater realization of another normative objective\footnote{See generally Louis Kaplow, Information and the Aim of Adjudication: Truth or Consequences?, 67 STAN. L. REV. 1303 (2015).}—in part because positive informedness effects with respect to one aspect of a product or service could be accompanied
by an undesirable effect with respect to other aspects of the product or service. No attempt is made here to offer an independent normative justification for seeking positive informedness effects—or for the existing legal structures aimed at such effects—as opposed to developing the body of empirical evidence bearing on the effects on which those structures are focused.

B. Implementing the Empirical Approach to Informedness Effects: Legally Required Visual Communications

As described in the remainder of this Part, the visual tobacco warnings noted above are not the only legally required visual communications for which empirical evidence on informedness effects is available. In the contexts discussed below, as in the context of the visual tobacco warnings, the available evidence provides some support for the conclusion that consumer informedness is higher with visual elements in legally required communications. In detailing such evidence for the legally required visual communications described earlier, the analysis here seeks to provide texture and context to—rather than offer an abstract endorsement of—an evidence-based approach to assessing consumer informedness.

1. Skull and crossbones

As the United Nations worked to develop the global hazard system described in Part I.B.1 above, the international body’s labor arm partnered with the Occupational and Environmental Health Research Unit of the University of Cape Town to develop a global empirical testing framework for assessing the efficacy of the new system. The testing framework measures a wide variety of effects of communications of the sort shown in Figure 6. Although—in contrast to the methodologies in Parts II.B.2 and II.B.3 below—the GHS testing framework does not directly compare communications with the GHS skull and crossbones depicted in the acetone communications in Figure 6 to communications containing textual statements alone, the framework does generate results on how respondents process the skull and crossbones versus textual components of these communications; such evidence, though imperfect, sheds some light on the skull and crossbones’s informedness effects.

62. See FRIDGE/UNITAR, STUDY INTO THE IMPLICATIONS OF IMPLEMENTING THE GLOBALLY HARMONISED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS AND DEVELOPMENT OF AN IMPLEMENTATION STRATEGY FOR SOUTH AFRICA, PART 2: CHEMICAL HAZARD COMPREHENSIBILITY TESTING TOOL AND TOOLKIT 15-16, 362-63 (2003). It is unclear whether the slight difference in the size of the skull and crossbones across the two labels was an intentional aspect of the study design.
A critical function of the GHS is to alert those who are in the presence of a chemical posing a potential danger of the fact of that danger. A robustly supported finding of social science is that people often tend toward the overoptimistic denial of the prospect of everyday dangerous occurrences; in response, potential debiasing measures such as the GHS communications in Figure 6 seek

to increase such optimistically biased individuals’ level of informedness.64 A legally required communication may face a lower hurdle for positive informedness effects in the GHS context than in the context of a product (for instance, tobacco, alcohol, or a heavy power saw) that is already universally understood to present danger or risk in at least some circumstances. A showing of positive informedness effects in the latter context requires either measures of the magnitude of the actual risk and individuals’ perceived risk in both of the contexts sought to be compared or—as in the tobacco warnings context noted above—a direct measure of the level of individuals’ factually inaccurate perceptions, such as the level of agreement with a factually inaccurate statement. Often such data are not available. In the context of chemical hazards of which at least some individuals may be unaware, by contrast, even a simple increase in the proportion of individuals who register the presence of a danger in the environment provides some evidence of increased informedness. Of course, it remains possible that an individual would still assume, despite awareness of the general risk, that “it won’t happen to me”; or, in a converse effect, it is also possible that the updated perception could depart more in an upward direction than the initial perception departed in a downward direction from the risk level suggested by available scientific, epidemiological, or other evidence. Still, at least a partial empirical analysis may be simpler in the context of the communications in Figure 6 than in the context of communications about products for which the fact of risk or danger is already widely known and the question concerns the degree of quantitative accuracy of perceptions of the risk or danger.

A final preliminary point is important. Much as a textual statement about a hazardous chemical faces evident limits in increasing the informedness of an individual who does not speak the language that is used, a skull and crossbones must be understood at least rudimentarily if its use is to increase informedness. The commonsensical conclusion that individuals will view a skull and crossbones on a product label as a signal of danger is supported by the GHS testing framework’s empirical data on the comprehensibility of this symbol.65 In a leading application of the testing framework, employing an attentively constructed sample of 402 South African workers and consumers, four out of five respondents—far more than in the case of the flame symbol signaling flamma-

64. See Jolls & Sunstein, supra note 4, at 207-16 (discussing debiasing strategies as a response to irrationally optimistic risk perceptions).
65. See FRIDGE/UNITAR, STUDY INTO THE IMPLICATIONS OF IMPLEMENTING THE GLOBALLY HARMONISED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS AND DEVELOPMENT OF AN IMPLEMENTATION STRATEGY FOR SOUTH AFRICA, PART 3: CHEMICAL HAZARD COMMUNICATION COMPREHENSIBILITY TESTING; STUDY REPORT 33-34 (2003); see also Mohamed Aqiel Dalvie et al., Chemical Hazard Communication Comprehensibility in South Africa: Safety Implications for the Adoption of the Globally Harmonised System of Classification and Labelling of Chemicals, 61 SAFETY SCI. 51, 56 (2014) (academic journal version of these empirical results).
ble material or any other visual element tested—correctly stated the meaning of the skull and crossbones. 66

Turning to the central question of the informedness effects of visual and textual components of the communications shown in Figure 6, respondents in the studied pool of South African workers and consumers were randomly selected to view either the top or the bottom label in Figure 6. Respondents were far more likely to recall viewing the skull and crossbones (80% of respondents) than any of the textual material in the labels (the signal word of “danger” or “warning” (40%); the name of the active ingredient, acetone (22%); the textual hazard statements (33%); and the name of the overall compound (29%)). 67 This sort of warning element recall provides some evidence (though not fully definitive, as already noted) of increased informedness as a consequence of the visual element registering the danger of the chemical. Note that this conclusion does not depend on a general assumption that elements that are not consciously recalled cannot produce positive effects on the likelihood that a chemical is correctly perceived to be dangerous. For purposes of assessing the potential effects of the visual versus textual warning elements in the GHS on informedness, it is only necessary with respect to the direction of the effect here that textual elements not be significantly disproportionately nonrecalled but effectual in alerting respondents in the study to risk—an unlikely pattern. In short, the ability to recall an indicator of dangerousness of a workplace or household chemical provides some, albeit imperfect, evidence of increased informedness.

Parallel to a substantial fraction of safety-related research, the study discussed here did not provide information about the statistical significance of the differences in recall it detects. The large absolute magnitude of the specific differences discussed above, however, reduces somewhat the possibility of a statistical null result.

A further finding from the empirical testing framework here is that respondents were substantially more likely to report viewing the skull and crossbones first (54%) than to report viewing any of the textual material first. 68 Speed of viewing in the case of a chemical about which individuals may require being alerted to the basic fact of danger provides corroborating evidence on informedness—and thus offers additional support for a United Steel Workers member’s view that while the pre-GHS chemical hazard standard “gave the workers the ‘right to know,’” the “GHS will give the workers the ‘right to understand.’” 69

66. See FRIDGE/UNITAR, supra note 65, at 5-7, 33 tbl.6.11; Dalvie et al., supra note 65, at 53, 55 & tbl.9.

67. See FRIDGE/UNITAR, supra note 65, at 21 tbl.6.7; Dalvie et al., supra note 65, at 54 tbl.7.

68. See FRIDGE/UNITAR, supra note 65, at 23 tbl.6.8; Dalvie et al., supra note 65, at 55 tbl.8.

2. Protective goggles, mask, and gloves symbols

The European Union protective gear symbols described in Part I.B.2 seek to convey a straightforward piece of information—that protective gear is required in the workplace. How well do such symbols perform relative to textual counterparts?

In a well-known early study, respondents, provided with a triple beam balance, Erlenmeyer flasks, and solutions that appeared to contain hazardous chemicals, were instructed to measure and mix the solutions.70 Some respondents’ written instructions included the following warning statement: “WARNING: Wear goggles, mask and gloves while performing the task to avoid irritating fumes and possible irritation of skin.”71 Other respondents’ instructions included the same warning statement along with the visual material in Figure 7.72 After the mixture task concluded, respondents were asked a question similar to the recall question in the GHS study discussed above—whether respondents recalled the instruction to wear protective goggles, mask, and gloves.73 The authors also collected information on whether the protective gear was actually donned;74 such behavioral measures provide insight on the connection between respondents’ degree of knowledge of safety requirements and their actual behavior. Whether a given protective action—such as donning a mask or gloves—was taken may also be a more unmediated and less indirect outcome measure than whether an individual states a belief of a protective gear requirement; in this way, measuring whether a protective action was taken—in the particular context of protective goggles, masks, and gloves—provides a useful complement to measures of individuals’ knowledge.

![Figure 7]

71. Id. (internal quotation marks omitted).
72. Id.
73. Id.
74. Id.
The mixture task study found that recall of the instruction to wear protective gear increased by more than one-third (from 69% of respondents to 93% of respondents\textsuperscript{75}) with the inclusion of the visual material in Figure 7. Although information on the statistical significance of the difference in recall is not provided, the magnitude of this effect reduces to some degree the likelihood of a null result in a statistical analysis—just as in the GHS study discussed above.

The mixture task study additionally found that respondents who received both the warning statement and the visual material in Figure 7 were more likely to don protective gear (81%) than those who received the warning statement only (63%). Moreover, with respect to statistical significance, analysis of donning frequency among respondents who received (i) only the warning statement, (ii) only the visual material in Figure 7, (iii) both the warning statement and the visual material, or (iv) neither of these items showed that both the “presence of pictographs” (the visual material) and the “presence of words” (the warning statement) were positively and statistically significantly correlated with donning.\textsuperscript{76} In interpreting the results on donning, however, it is important to bear in mind that the decision to don gear does not necessarily map perfectly onto the degree of respondents’ informedness about protective gear requirements; they could don gear without being aware of the requirements, and they could equally decline to don gear while being aware of the requirements.

In contrast to the exactly matched skull and crossbones representation in the OSHA GHS communications and in the GHS empirical study, the protective goggles, mask, and gloves symbols in the mixture task study are slightly different from the illustrative symbols in Figure 2; it is conceivable, even if it does not seem likely, that the attributes of the symbols in Figure 2 in comparison to Figure 7 could affect the impact of the goggles, mask, and gloves symbols.

\section{3. Nutrition traffic lights}

As noted in Part I.B.3 above, the nutrition traffic lights recently mandated in Ecuador originated in the United Kingdom (where, however, they are voluntary rather than mandatory\textsuperscript{77}), and a large-scale empirical effort in that country examined the effects of adding visual traffic light elements to numerical nutrition information.\textsuperscript{78} In the quantitative arm of this effort, United Kingdom respondents viewed a series of nutrition labels one by one; varying label formats were randomly matched with different food products so that effects of formats would not be confounded with any effects associated with a given food prod-

\begin{footnotesize}
\begin{enumerate}
\item Id. at 986 tbl.1.
\item Id. at 985, 986 & tbl.1 (internal quotation marks omitted).
\item See, e.g., U.K. DEP’T OF HEALTH ET AL., GUIDE TO CREATING A FRONT OF PACK (FOP) NUTRITION LABEL FOR PRE-PACKED PRODUCTS SOLD THROUGH RETAIL OUTLETS 5-6 (2013).
\item See SALLY MALAM ET AL., BRITISH MKT. RESEARCH BUREAU, COMPREHENSION AND USE OF UK NUTRITION SIGNPOST LABELLING SCHEMES 19-20, 21 & fig.2.3 (2009).
\end{enumerate}
\end{footnotesize}
uct. After viewing a label presenting information about a particular food, a respondent made an assessment either of the food’s overall healthfulness or of its level of fat, salt, or sugar; the respondent then viewed the next label in a (randomly ordered) series.

The study’s “conventional” labels (those without visual traffic light elements), shown on the right-hand side of Figures 8 and 9 below, involved black-and-white presentation of nutrition figures of the sort familiar in the United States and around the world. The left-hand labels in the study reflected the addition of traffic light coloring to the labels on the right. Outcome comparisons for right-hand versus left-hand labels over the aggregate set of responses test the effect of nutrition traffic lights in a precise manner because of the labels’ match in every respect other than the presence or absence of traffic light coloring. The United Kingdom study examined both snack-sized (yogurt; chips or “crisps”) and meal-sized (sandwich; “ready meal”) food items.

FIGURE 8

Amber color  Red color  Green color

Amber color  Red color  Green color

80. MALAM ET AL., supra note 78, at 6; infra notes 85-87, 92-93 and accompanying text.
81. MALAM ET AL., supra note 78, at 21 fig.2.3.
82. Id.
83. Id.
84. Id. at 21.
As relevant to consumer informedness as a function of the presence versus the absence of nutrition traffic lights, respondents in a 652-person sample in the United Kingdom were asked, for each food label they viewed, how “healthy” they thought one serving of the food was. 85 The study instructed respondents that “to be eating healthily,” the government had advised that “most people reduce the level of fat, saturated fat (also known as saturates), salt and sugars in the foods they eat.” 86 Answers to the study’s overall healthfulness question could take values from one (most healthy) to five (least healthy) and were assessed for accuracy by whether they matched either of the two consecutive points with the highest rate of selection by a panel of nutritionists and dieticians. 87

In an absolute sense, the value of the healthfulness rating used in the study seems unclear, but, significantly, the core focus of the United Kingdom study—and the comparison implicitly made in many of the court decisions discussed in Part III below—concerns the change in the level of consumer informedness with a change in the communication format. Thus, the relevant question here is whether changes in the accuracy measure used in the study are a reasonable barometer of changes in factual accuracy of the perceptions of consumers who view different label formats—a question to which an affirmative answer seems reasonable.

First considering the labels in the top panel of Figure 8, overall healthfulness responses to nutrition traffic light (left-hand side) labels on snack-sized foods were correct 65% of the time, compared to 56% of the time for black-and-white (right-hand side) labels on snack-sized foods, and this outcome difference was statistically significant. 88 Responses to nutrition traffic light labels on meal-sized foods were correct 62% of the time, compared to a lower but statistically indistinguishable 58% of the time for black-and-white labels on meal-sized foods. 89

The addition of Guideline Daily Amount percentages to the labels in the top panel of Figure 8 produces the labels in its bottom panel. Overall healthfulness responses to nutrition traffic light (left-hand side) labels on snack-sized foods were correct 64% of the time, compared to a lower but statistically indistinguishable 58% of the time for black-and-white (right-hand side) labels on snack-sized foods. 90 Responses to nutrition traffic light labels on meal-sized foods were correct 62% of the time, compared to 53% of the time for black-and-white labels on meal-sized foods, and this outcome difference was statistically significant. 91

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85. Id. at 75 (italics omitted).
86. Id. (italics omitted) (internal quotation marks omitted).
87. Id.
88. Id. at 76 chart 6.1.
89. Id.
90. Id.
91. Id.
Particularized questions about fat, salt, and sugar similarly suggested that nutrition traffic lights produce some increase in informedness. Respondents in the 548-person sample receiving these questions assessed how much fat, salt, or sugar, on the same one-to-five scale as used above, they believed was contained in one serving of a given food product.92 The approach to defining “correct” answers—and the implications of this approach for assessing changes in informedness—match those in the overall healthfulness portion of the study.93

First considering the labels in the top panel of Figure 8, for both snack-sized and meal-sized portions, responses to nutrition traffic light (left-hand side) labels were correct more frequently than responses to black-and-white (right-hand side) labels, but not by a statistically significant margin (65% versus 63% and 62% versus 60% for snack-sized and meal-sized portions, respectively).94 Considering the labels in the bottom panel of Figure 8, for the snack-sized portion, responses to nutrition traffic light (left-hand side) labels were correct 69% of the time, compared to 62% of the time for black-and-white (right-hand side) labels, and this outcome difference was statistically significant.95 For the meal-sized portion of the food item, responses to nutrition traffic light labels were correct 66% of the time, compared to a lower but statistically indistinguishable 64% of the time for black-and-white labels.96

The fat, salt, and sugar questions raise the possibility that increased informedness with respect to a particular attribute could coincide with reduced informedness with respect to a separate attribute of the food product. Individuals given information about one product attribute “may also form beliefs about other attributes usually associated with the first attribute,”97 and, thus, enhanced accuracy in answers to a question about a particular nutrient could co-exist with either more or less accurate perceptions about some other health-related attribute of a product. Such heterogeneous effects represent part of the reason that, as noted in Part II.A above, an increase in even a reliable informedness measure may not correspond to enhanced social welfare or greater achievement of another normative objective.98 Broader, more global measures of informedness—such as overall healthfulness or, in the contexts discussed earlier in this Part, the existence of a significant hazard or a requirement that safety gear be worn—reduce (although they do not eliminate) the possibility that measured increases in informedness are accompanied by unmeasured decreases in factually accurate perceptions of important attributes of the context in question.

92. Id. at 65.
93. Id. at 65-66.
94. Id. at 67 chart 5.1.
95. Id.
96. Id.
97. Craswell, supra note 60, at 675-76.
98. See supra notes 59-60 and accompanying text.
In addition to testing the accuracy of respondents’ perceptions for nutrition traffic light versus black-and-white versions of the labels shown in Figure 8, the United Kingdom study examined the effects of adding traffic light coloring to labels that—unlike current labels in the United States—supplement numerical figures with textual “grades” (referred to in the study as “text”) of “low,” “med,” and “high” for food products’ fat, salt, sugar, and other categories, as shown in Figure 9.99 Somewhat surprisingly, the addition of traffic light coloring to the labels with “low,” “med,” and “high” ratings still had an impact on informedness, though the impact was less than with the label formats in Figure 8. With respect to the overall healthfulness question, the percentage of correct answers increased (though not to a statistically significant degree) from 65% to 71% for snack-sized food labels and from 65% to 69% for meal-sized food labels when the “high,” “med,” and “low” ratings were supplemented with traffic light coloring.100 Meanwhile, with respect to questions about particular nutrients, the percentage of correct answers increased (though not to a statistically significant degree) from 69% to 70% for snack-sized food labels and from 70% to 73% for meal-sized food labels.101

In short, all of the comparisons are consistent, though sometimes only weakly, with the conclusion that the traffic light visual element increases the factual accuracy of people’s judgments.102

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99. MALAM ET AL., supra note 78, at 21 fig.2.3.
100. Id. at 76 chart 6.1.
101. Id. at 67 chart 5.1.
102. A further arm of the United Kingdom study asked respondents to identify the healthier item in a pair of items. See id. at 89. In general, pair comparisons are afflicted by the difficulty of identifying food items that, on the one hand, are not obviously or transparently more or less healthy than a comparator food but, on the other hand, are rankable in relation to such a comparator without the use of a complex methodology or specialized nutrition “calculator.” In the United Kingdom study, the food item comparisons turned out to be sufficiently straightforward that respondents provided correct answers nearly every time regardless of the label type. Comparing the labels in the top panel of Figure 8, responses to nutrition traffic light labels on snack-sized foods were correct 92% of the time, compared to 93% of the time for black-and-white labels, and nutrition traffic light labels on meal-sized foods were correct 88% of the time, compared to 90% of the time for black-and-white labels. Id. at 91 chart 7.1. With such high rates of correctness, label type unsurprisingly had little impact. For the bottom panel of Figure 8, responses to nutrition traffic light labels on snack-sized foods were correct 93% of the time, compared to 92% of the time for black-and-white labels, and nutrition traffic light labels on meal-sized foods were correct 90% of the time, compared to 89% of the time for black-and-white labels—results that are directionally aligned with the results described in the text but are, again, too slight to provide meaningful information about the effects of nutrition traffic lights. Id.
A 2011 study in the United States similarly supports the conclusion that nutrition traffic lights may increase nutritional informedness.\(^{103}\) As relevant to nutrition traffic lights’ effects, the study examined responses to a packaged chicken dinner that contained either standard “Nutrition Facts” figures, depicted in the bottom panel of Figure 10, or the same figures along with the front-of-pack visual label shown in the top panel of Figure 10.\(^{104}\) The authors chose the chicken dinner because it had been used in previous studies involving nutrition labels.\(^{105}\) In the United Kingdom study, the nutrition traffic light and black-and-white labels were formatted identically, with only the presence or absence of traffic light coloring differentiating them (Figures 8 and 9), whereas the study in the United States compared the traffic light visual label plus the standard Nutrition Facts label to the standard Nutrition Facts label on its own.\(^{106}\) In both studies, however, visual elements either were or were not present while the substantive label “content” (in the form of nutrition figures) was held constant. (All of the figures in the top panel of Figure 10 also appear on the standard Nutrition Facts label in the bottom panel.)\(^{107}\)

Respondents who viewed one of the two options in Figure 10 were asked whether, if they were to consume six servings of the chicken dinner product in a day (and nothing else), they would consume more or less than the recommended amount of each of a range of nutrients and vitamins—a task the study’s authors term the “nutrient use accuracy test.”\(^{108}\) Among respondents with below average nutrition consciousness as measured by their answers to questions about nutrition interest, knowledge, and motivation, the percentage of the set of nutrient questions answered correctly increased from 70.6% to 78.1% with the

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\(^{104}\) Id. at 179, 187-88.

\(^{105}\) Id. at 179.

\(^{106}\) Id. at 179, 187-88.

\(^{107}\) Id.

\(^{108}\) Id. at 180.
addition of the traffic light visual element to the standard Nutrition Facts label. However, because the study is not closely focused on the question being considered here, it does not indicate whether this outcome difference is statistically significant; directionally, however, the visual communication clearly enhanced consumer informedness, consistent with the nutrition traffic light findings in the United Kingdom study.

Although, as suggested above, the studies of nutrition traffic lights in the United Kingdom and the United States provide well-controlled identification of the effect of nutrition traffic light visual elements, it remains possible that these elements’ effects could differ in the real world. Respondents in studies addressing informedness—such as the nutrition traffic lights studies—necessarily have

109. Id. at 179, 184 tbl.3B.
some knowledge that they are involved in a research study (because they are answering questions); additionally, such studies observe respondents at a particular point in time, one during which “wear-out” of a communication’s impact may not yet have occurred.  

In contrast, if data on people’s factual informedness are not sought, then field studies, in which those whose responses are studied are not aware that they are being studied, may be employed.

* * *

In all, the evidence presented above, while limited in important respects, supports the conclusion that visual elements can help to “bring home” a communication’s informational message to consumers. Much as a warning of tick-borne Lyme disease (for instance) may produce more accurate risk estimates among optimistically biased individuals if the warning includes a prominent image of a tick (as below) \[112\] than if it presents the text alone (“NOTICE: Ticks may be found in this area. Some ticks may transmit Lyme disease.”), each of the visual elements discussed above can complement standard textual communications by providing an “‘instantaneous memorandum’ of a risk” \[113\] that individuals might otherwise fail to register.

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110. Beales, Craswell & Salop, supra note 1, at 530.

111. See, e.g., Ian Ayres et al., Race Effects on eBay, RAND J. ECON. (forthcoming 2015) (manuscript at 1, 7), available at http://www.law.yale.edu/documents/pdf/Faculty/Jolls_RaceEffectsoneBay.pdf (reporting the results of a study involving online auctions of baseball cards held either by an African American hand or by a white hand).


113. Charles Tijus et al., The Design, Understanding and Usage of Pictograms, in WRITTEN DOCUMENTS IN THE WORKPLACE 17, 18 (Denis Alamargot et al. eds., 2007).
III. FIRST AMENDMENT ANALYSIS OF LEGALLY REQUIRED COMMUNICATIONS

The evidence described in Part II suggests positive informedness effects of the visual elements of at least some legally required communications. Yet when courts adjudicating claims that such communications compel commercial speech in violation of the First Amendment examine government assertions that these communications increase the degree to which consumers are “well informed,” visual elements can receive a chilly reception.115 Drawing on Part II’s evidence, Part III.A below urges that judicial approaches theorizing textual elements in legally required communications as “convey[ing] factual information”116—while visual elements in the communications are “subjective”117 and, therefore, not informative—lack adequate support. Part III.B suggests that such judicial approaches also work to obscure the noninformedness effects that, as other commentators have noted, legally required communications’ textual elements may produce. Part III.C describes the way in which the judicial tendency to characterize elements, whether visual or textual, in a legally required communication as having either informedness effects or noninformedness effects, rather than a mixture of the two, encourages a form of judicial splintering in which conclusion-by-categorization—“The legally required communication conveys information! It survives constitutional scrutiny!”119 “No! It’s an unconstitutional government attempt to manipulate consumers’ views of the seller’s product!”120—cleaves off the space in which judges with different constitutional instincts might otherwise substantively engage one another. Finally, Part III.D offers brief notes on the overarching standard under which legally required communications’ constitutional permissibility is assessed.

A. Informedness Effects, Legally Required Visual Communications, and the First Amendment

Because the “First Amendment . . . does not prohibit the State from insuring that the stream of commercial information flow[s] cleanly as well as freely,”121 the government may, consistent with the First Amendment, require firms to “provide somewhat more information than they might otherwise be in-

115. See infra notes 134-37 and accompanying text.
117. Id. at 528.
118. See infra note 147 and accompanying text.
120. Cf. id. at 1211-19 (majority opinion).
clined to present”\textsuperscript{122}—whether in the form of “warnings,” “disclaimers,” or other communications providing consumers with “additional information.”\textsuperscript{123} “[T]he constitutional value of commercial speech lies in the information which such speech conveys to an audience,”\textsuperscript{124} and, thus, the First Amendment interests implicated by most such required disclosures are relatively “weak”\textsuperscript{125}. Courts variously assess such disclosures for their “reasonabl[e] relat[ion]” to the government’s interest in “dissipat[ing] the possibility of consumer confusion or deception”\textsuperscript{126} or (a more demanding standard) their propensity for “directly and materially advanc[ing]” either this government interest or another “substantial” government objective.\textsuperscript{127}

In \textit{Milavetz, Gallop & Milavetz, P.A. v. United States}, for instance, the Supreme Court rejected a First Amendment challenge to the requirement that debt relief agencies’ materials include the statement “We help people file for bankruptcy relief under the Bankruptcy Code.”\textsuperscript{128} The statement, the Court concluded, targeted “the problem of inherently misleading commercial advertisements—specifically, the promise of debt relief without any reference to the possibility of filing for bankruptcy.”\textsuperscript{129} The required statement implicated merely the debt relief agencies’ “minimal” interest in “not providing the required factual information” (as the agencies’ services did in fact include assisting with bankruptcy filings),\textsuperscript{130} and the legally required communication, according to the Court, did not preclude firms from “conveying any additional information” they wished to present.\textsuperscript{131}

\textsuperscript{123} Va. State Bd. of Pharmacy, 425 U.S. at 772 n.24.
\textsuperscript{124} Post, supra note 12, at 872-73 (citing cases).
\textsuperscript{125} Zauderer, 471 U.S. at 652 n.14.
\textsuperscript{126} Id. at 651 (quoting \textit{In re R.M.J.}, 455 U.S. 191, 201 (1982)) (internal quotation mark omitted); see also, e.g., Milavetz, Gallop & Milavetz, P.A. v. United States, 559 U.S. 229, 249-50 (2010); Nat’l Elec. Mfrs. Ass’n v. Sorrell, 272 F.3d 104, 115 (2d Cir. 2001).
\textsuperscript{128} 559 U.S. at 233, 250-52 (internal quotation mark omitted).
\textsuperscript{129} Id. at 250.
\textsuperscript{130} Id. (quoting Zauderer, 471 U.S. at 651) (internal quotation marks omitted).
\textsuperscript{131} Id.; see also Rostron, supra note 19, at 540 (describing the Supreme Court’s compelled commercial speech precedent as holding that “[w]hen the government mandates the insertion of a new message into advertisements, for example, the government has not stopped the advertisers from saying whatever they want to say”).
The ready equation of legally required communication and “dissipat[ing] the possibility of consumer confusion or deception”\textsuperscript{132} in cases such as Milavetz, however, can fall away with legally required visual communications—notwithstanding the undeniable fact that, like text, “pictures . . . may . . . serve to impart information.”\textsuperscript{133} In the visual tobacco warnings litigation discussed above, judges around the country—sometimes in dissenting opinions, other times not—dismissed the prospect of increased informedness under the visual tobacco warnings (such as those in Figures 4 and 5 above) compared to text-only counterparts. In the words of one such judge, the visual elements of these tobacco warnings—unlike the textual statements also employed in the same communications—were not “factual” because “there can be no doubt that the FDA’s choice of visual images is subjective” and draws on “the inherently persuasive character of the visual medium.”\textsuperscript{134} Another judge adjudicating a First Amendment challenge to the warnings similarly averred that the warnings’ “graphic images” communicated a “subjective and highly controversial message” rather than, as in the case of the judge’s view of the textual statements, conveying “factual information . . . about the actual health consequences of smoking.”\textsuperscript{135}—notwithstanding the fact that, as discussed in Part II.A, the tobacco warnings’ visual elements made smokers less likely to agree with factually inaccurate statements about tobacco’s health consequences.\textsuperscript{136} Referencing a hypothetical of a picture of a lifelong smoker with the statement “115 years old and still smoking,” and posing the question of whether such a communication could possibly be deemed “factual,” this judge rejoined, “Of course not!”\textsuperscript{137}

The source and contours of the judicial theorizations of communications’ visual but not textual elements as other than “factual” are left unspecified. Although it would be difficult to contest the conclusion that the hypothetical “115 years old and still smoking” communication is unlikely to enhance consumer informedness, the picture of the smoker in the communication hardly seems material to this conclusion. Would the statement “Jane Smith is 115 years old and still smoking,” without any visual element, be more “factual” in the judge’s

\textsuperscript{132} Zauderer, 471 U.S. at 651 (quoting In re R.M.J., 455 U.S. 191, 201 (1982)) (internal quotation mark omitted).

\textsuperscript{133} Id. at 647 (addressing the legal status of a rule restricting certain visual elements in firms’ advertising material); see also, e.g., Post, supra note 12, at 908.

\textsuperscript{134} Disc. Tobacco City & Lottery, Inc. v. United States, 674 F.3d 509, 526, 528 (6th Cir. 2012) (Clay, J., dissenting in part) (emphasis added).

\textsuperscript{135} R.J. Reynolds Tobacco Co. v. U.S. Food & Drug Admin., 845 F. Supp. 2d 266, 273-74 (D.D.C.) (emphasis added) (quoting Entm’t Software Ass’n v. Blagojevich, 469 F.3d 641, 652 (7th Cir. 2006)) (internal quotation mark omitted), aff’d, 696 F.3d 1205 (D.C. Cir. 2012); see also supra note 47 (noting a question as to the continued viability of R.J. Reynolds in light of the subsequent decision in American Meat Institute v. U.S. Department of Agriculture, 760 F.3d 18, 22-23 (D.C. Cir. 2014) (en banc)).


\textsuperscript{137} R.J. Reynolds, 845 F. Supp. 2d at 273 n.13 (internal quotation mark omitted).
view? The connection of informedness to textual but not visual elements, while perhaps unsurprising in light of both the literal approach’s mismatch with visual elements and the legal-pragmatic approach’s tendency to “privileg[e] the text,”138 calls for deeper and more sustained consideration—particularly given Part II’s empirical evidence of positive informedness effects of legally required communications’ visual elements.

Of course, some legally required visual communications may fail to increase informedness—but so may some legally required textual communications. Although aggressively traumatizing tobacco-related images, or visual images of “dismembered fetuses” on abortion clinics’ signage,139 might “stop us from thinking”140 more than increasing our level of informedness about the effects of tobacco or an abortion, a textual account of a heart-wrenching death—such as Noni Glykos’s rapid plummet from new parent in her early thirties to a lung cancer diagnosis within a few weeks of her child Konstantinos’s birth to death just four months later141—could “stop our thinking” just as forcefully.142

In many circumstances, however, both visual and textual elements of a legally required communication may increase informedness—effects that count favorably in First Amendment analysis whether under the “reasonab[e] relat[ion]” standard143 or under the higher “direct[ ] advance[ment]” standard noted above.144 Of course, no suggestion is made here that positive informedness effects of an element of a legally required communication would alone suffice to sustain the element against constitutional challenge. A requirement that tobacco packaging produce a nonharmful but uncomfortable shock every time a

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139. Post, supra note 12, at 909 n.183.
142. With respect to legally required communications related to abortion, the Courts of Appeals for the Fifth and Eighth Circuits have, applying Planned Parenthood of Southeastern Pennsylvania v. Casey, 505 U.S. 833 (1992), rejected recent constitutional challenges to such communications. See Tex. Med. Providers Performing Abortion Servs. v. Lakey, 667 F.3d 570 (5th Cir. 2012); Planned Parenthood of Minn., N.D., S.D. v. Rounds, 686 F.3d 889 (8th Cir. 2012) (en banc). Because Texas Medical Providers and Planned Parenthood of Minnesota, North Dakota, South Dakota reside within their own doctrinal structure, see, e.g., Tex. Med. Providers, 667 F.3d at 577 (“If the disclosures are truthful and non-misleading, and if they would not violate the woman’s privacy right under the Casey plurality opinion, then Appellees would, by means of their First Amendment claim, essentially trump the balance Casey struck between women’s rights and the states’ prerogatives.”); cf. Tushnet, supra note 19, at 2418 (“Perhaps it’s too much to hope that abortion jurisprudence will bear any relationship to the rest of First Amendment law.”), they are not addressed further in this Article.
143. See sources cited supra note 126.
144. See sources cited supra note 127.
consumer handled the packaging—thus producing a negative “halo” around the product\textsuperscript{145}—would not rise or fall under the First Amendment based on evidence of positive effects of the shock requirement in reducing optimistically biased risk perceptions among smokers. (Of course, our democratic process means that such a far-fetched requirement is unlikely to come into existence in practice.)

Alongside visual elements’ positive informedness effects, such elements may have additional effects as they “communicate [their] message”\textsuperscript{146}—but so may textual elements, a parallel noted by other commentators and discussed next.

\textbf{B. Noninformedness Effects of Legally Required Communications}

Underplaying the informedness effects of visual elements in legally required communications is only one of two lacunae in segmenting visual from textual elements in these communications. Such visual-textual dichotomies also threaten to submerge and obscure the way in which legally required communications’ textual elements—as well as their visual elements—have effects other than on informedness.\textsuperscript{147}

Many legally required communications not otherwise made by firms, whatever the visual or textual elements of those communications, will tend to cast firms’ products or services in at least a slightly more negative light than would otherwise have obtained. Some such negative effects may be traced solely to the factual information conveyed by the legally required communication, but other such effects may arise apart from such factual information. At the same time, for instance, that “Slaughtered in Mexico” on a beef label provides factual information about the beef’s country of origin, it also references the potentially distressing sequence of events preceding the product’s appearance in the grocery aisles.\textsuperscript{148} Such distress effects need not be traced to learning the factual information contained in the legally required communication; a consumer who was already familiar, from previous purchases of a particular product, with its country of origin might still experience some level of distress from the “slaugh-

\textsuperscript{145} Tushnet, supra note 19, at 2411.

\textsuperscript{146} Disc. Tobacco City & Lottery, Inc. v. United States, 674 F.3d 509, 565 (6th Cir. 2012) (emphasis omitted) (internal quotation mark omitted).

\textsuperscript{147} See, e.g., Calo, supra note 8, at 1069 (noting that required disclosure of effects of making minimum payments on credit card obligations may “implicitly condemn and reduce a specific practice that is profitable for credit card [firms] but likely has a negative impact on most consumers”); Goodman, supra note 12, at 546 (suggesting that requiring sugar content to appear on front-of-package food labels not only provides factual information about sugar content, but also communicates an evaluative conclusion that sugar is “special among ingredients”); Post, supra note 12, at 915 (noting that nutritional disclosure requirements “implicitly signal that members of the public ought to pay attention to their health when purchasing food”).

\textsuperscript{148} See Am. Meat Inst. v. U.S. Dep’t of Agric., 760 F.3d 18, 21, 27 (D.C. Cir. 2014) (en banc).
ter” reference. (The legally required communications may replace “slaughtered” with “harvested,”149 but such a switch may not be worth the risk of consumer confusion over the meaning of “harvesting” of beef.)

The Supreme Court’s Milavetz decision provides another example of the way in which legally required communications generally “do” several things—not all related to the factual accuracy of people’s perceptions—at once.150 The legally required statement “We help people file for bankruptcy relief under the Bankruptcy Code”151 would surely affect the image at least some consumers have of the work of debt relief agencies, the clientele served by these agencies, and other factors bearing on consumers’ use of the agencies’ services. Just as the State of Tennessee sought at a recent trial to have defense counsel instructed not to refer to the prosecution as “the Government” (which, of course, would have been a factually accurate reference) because “[t]he State believes that such a reference is used in a derogatory way and is meant to make the State’s attorneys seem oppressive,”152 legally required communications’ elements can make firms “seem oppressive” or have other negative effects—unrelated to informedness—on firms.

In short, as a rule legally required communications carry multiple meanings; these communications—whether or not they contain visual elements—will often affect both informedness and firms’ ability to engage in legitimate, nondeceptive messaging unrelated to informedness. As Ellen Goodman notes, conceptualization of communications as either “informative or persuasive” constructs a “binary” that “blinks at the reality of communications in which these characteristics coexist on a continuum.”153 The oft-recited notion in the First Amendment case law of “purely factual and uncontroversial information”154 is closer to a chimera than to a helpful analytic.

Because both visual and textual elements of legally required communications typically have both types of effects under discussion here—and because a mechanism for quantifying and somehow comparing the magnitude of these effects does not exist at present (if it ever could)—courts adjudicating First Amendment challenges to such communications ultimately may have little choice but to make an educated judgment about what the relationship between the two types of effects in a given case implies for the First Amendment permissibility of the at-issue legally required communication. It is conceivable that over time a justification could emerge in favor of some sort of presumption that legally required communications’ permissibility under the First Amendment turns in part on whether a legally required communication has a visual element

149. Id. at 27.
151. Id. at 233 (internal quotation mark omitted).
or not. At the present time, however, data-free conceptualizations of visual elements in legally required communications as “subjective” and, hence, not informative, and textual elements as informative because “factual,”\textsuperscript{155} obfuscate the true nature of legally required communications’ effects. Such obfuscation has regrettable effects wholly beyond the treatment of legally required communications’ visual versus textual elements, as described just below.

C. Judicial Splintering

The failure to recognize that legally required communications—whether or not they contain visual elements—ubiquitously, perhaps nearly inevitably, have both informedness and noninformedness effects can cause judges adjudicating First Amendment challenges to splinter, as some judges categorize a challenged communication as enhancing informedness and thus seek to uphold it while other judges, confronting the same communication but talking past the first judges, categorize the communication as “persuasive”\textsuperscript{156} or “subjective”\textsuperscript{157} and thus seek to strike it down.

In the decision of the United States Court of Appeals for the District of Columbia Circuit in \textit{Spirit Airlines, Inc. v. U.S. Department of Transportation}, for instance, the court addressed several commercial airlines’ First Amendment challenge to a federal requirement that the “most prominent figure displayed on print advertisements and websites” for air travel be the ticket’s total price, inclusive of taxes.\textsuperscript{158} Previously, airlines could advertise, for instance, a “$167 base fare + $39 taxes and fees.”\textsuperscript{159} The new rule did not prohibit airlines from separately displaying the amount of the base fare and the amount of the taxes and other charges, but the rule did prohibit displaying such components “in the same . . . size as the total price” ($206 in the court’s illustration).\textsuperscript{160}

The majority opinion in \textit{Spirit Airlines} sustained the airfare display rule on the ground that it “provid[ed] accurate information” in an effort to avoid “consumer confusion.”\textsuperscript{161} Writing separately, however, one judge objected that the rule, by making it “illegal for airlines to put . . . government charges in the same . . . typeface [as] the total price,” “muffle[d]” the airlines’ challenge to the government’s action in violation of the First Amendment’s protection of “speech complaining about taxes.”\textsuperscript{162} The legally required communication’s effect on consumer informedness featured as little in this separate opinion as

\textsuperscript{155} See Disc. Tobacco City & Lottery, Inc. v. United States, 674 F.3d 509, 526, 528 (6th Cir. 2012) (Clay, J., dissenting in part).
\textsuperscript{156} Id. at 526.
\textsuperscript{157} Id.
\textsuperscript{158} 687 F.3d 403, 408 (D.C. Cir. 2012).
\textsuperscript{159} Id. (internal quotation marks omitted).
\textsuperscript{160} Id. at 408-09 (quoting Enhancing Airline Passenger Protections, 76 Fed. Reg. 23,110, 23,166 (Apr. 25, 2011)) (internal quotation marks omitted).
\textsuperscript{161} Id. at 414-15.
\textsuperscript{162} Id. at 419, 421 (Randolph, J., concurring in part and dissenting in part).
the communication’s effect on the firms’ desired tax-skeptical messaging featured in the majority opinion.

The decision of the same court in the visual tobacco warnings litigation referenced above presents another instance of judicial splintering.\textsuperscript{163} The judges in the majority in the tobacco warnings case struck down the warnings on the ground that they prevented tobacco companies from legitimately communicating with their customers about their “legal . . . product.”\textsuperscript{164} “In effect,” averred these judges, the legally required communications “are not warnings, but admonitions: [d]on’t buy or use this product.”\textsuperscript{165} (Would the court also view the red nutrition traffic light discussed above as an “admonition: don’t buy or use this product,” and would this traffic light be unconstitutional for that reason?) By contrast, the dissenting judge in the visual tobacco warnings litigation—referencing the \textit{Spirit Airlines} court’s acceptance of the government’s determination “that it was deceitful and misleading when the most prominent price listed by an airline is anything other than the total, final price of air travel”\textsuperscript{166}—urged that “cigarette packages and other advertisements that fail to display the final costs of smoking in a prominent manner are at least as misleading as the airline advertisements” in the earlier case.\textsuperscript{167} In the view of the dissenting judge, the visual tobacco warnings would “directly advance” the government’s “informational interest, not least by ‘ensur[ing] that the health risk message[s] [are] actually seen by consumers in the first instance.’”\textsuperscript{168} Once again, a communication is rapidly tagged, and adjudicated, as \textit{either} “persuasive” government speech (hence invalid) or “mandated factual disclosure” (hence valid).\textsuperscript{169}

D. “Deception”

As noted at the start of Part III, courts adjudicating First Amendment challenges to legally required communications of the sort discussed in Parts I and II often look for a “reasonab[le] relat[ion]” between the legally required communication and the government’s interest in preventing consumer deception.\textsuperscript{170} But what is “deception” here?

\textsuperscript{163} See R.J. Reynolds Tobacco Co. v. Food & Drug Admin., 696 F.3d 1205 (D.C. Cir. 2012); see also supra note 47 (noting a question as to the continued viability of \textit{R.J. Reynolds} in light of the subsequent decision in \textit{American Meat Institute v. U.S. Department of Agriculture}, 760 F.3d 18, 22-23 (D.C. Cir. 2014) (en banc)).

\textsuperscript{164} \textit{R.J. Reynolds}, 696 F.3d at 1212.

\textsuperscript{165} \textit{Id.} at 1211.

\textsuperscript{166} \textit{Spirit Airlines}, 687 F.3d at 413.

\textsuperscript{167} \textit{R.J. Reynolds}, 696 F.3d at 1228 (Rogers, J., dissenting).

\textsuperscript{168} \textit{Id.} at 1235 (alterations in original) (quoting Commonwealth Brands, Inc. v. United States, 678 F. Supp. 2d 512, 530 (W.D. Ky. 2010), \textit{aff’d in relevant part}, Disc. Tobacco City & Lottery, Inc. v. United States, 674 F.3d 509, 569 (6th Cir. 2012)).

\textsuperscript{169} Bonnie, supra note 13, at 616 (internal quotation marks omitted).

\textsuperscript{170} See sources cited supra note 126.
Although “deception” in this context lacks a “determinate meaning,” the Milavetz case discussed above provides some parameters. In Milavetz the gap between the legally required communication and at least some of the debt relief messaging that the Court said was properly targeted by the legally required communication was surprisingly limited—suggesting that so too might be the Court’s threshold for “deception” for present purposes. In addressing the legally required communication “We help people file for bankruptcy relief under the Bankruptcy Code,” the Milavetz Court referred favorably to this communication’s response to “inherently misleading commercial advertisements—specifically, the promise of debt relief without any reference to the possibility of filing for bankruptcy, which has inherent costs.” Of course, the legally required communication itself, while referring to bankruptcy, did not refer to bankruptcy costs. Citing examples such as the congressional record debt relief communication shown below, the Court suggested that “[e]vidence in the congressional record demonstrating a pattern of advertisements that hold out the promise of debt relief without alerting consumers to its potential cost is adequate to establish that the likelihood of deception in this case ‘is hardly a speculative one.’” However, the communication from the congressional record—just like the legally required communication—made express reference to bankruptcy but not bankruptcy costs. In short, given the limited nature of the gap between the legally required communication in Milavetz and the sort of debt relief advertisement to which the Court saw the legally required communication as targeted, the threshold for the “deception” required to sustain a legally required communication is evidently not high.

175. Given the sustained focus of the discussion in Part III on empirical approaches to factual informedness, a natural question is whether empirical evidence might also be used to assess effects beyond those related to informedness. As noted above, empirical studies of communications’ effects often obtain information about, for instance, how “gory” respondents think a hazard is. See supra note 24. It is difficult, however, to envision any metric by which effects beyond effects of factual informedness could be measured reliably. Although, for instance, a finding that a communication reduces the proportion of respondents who express agreement with the factually inaccurate statement “If I have smoked a pack of cigarettes a day for more than 20 years, there’s little health benefit to me quitting smoking” provides at least reasonably reliable support for increased factual informedness with the communication, it is quite unclear what one should infer from, say, a statistically significant difference in the proportion of respondents who view product hazards as “gory.” Such a difference might result solely from increased informedness of the facts of the hazard, might be
CONCLUSION

Conceptualizations about legally required communications—Is the communication “purely factual”? Is it “subjective”?—tend to be puzzle-making. Although supplementing the conceptual puzzle-making with an evidence-based approach to legally required communications’ informedness effects certainly does not answer every question, such an approach avoids obscuring the difficulty of the inquiry—and of what is at stake in its adjudgment.

largely unrelated to such an increase in informedness, or might represent a mix of informedness and noninformedness effects.