

## The Argumentative Structure of Some Persuasive Appeal Variations

**Daniel J. O’Keefe**

*Northwestern University*

### 1. Introduction

Substantial experimental social-scientific research has been conducted concerning the relative persuasiveness of alternative versions of a given message. This research has obvious practical value for informing the design of effective persuasive messages, and it can also contribute to larger theoretical enterprises by establishing dependable general differences in message effectiveness (differences that require explanation).

But this research suffers from two problems. One is the undertheorization of message properties, that is, insufficient analytic attention to the nature of the message variations under examination (for some discussion, see O’Keefe 2003). The second – related – problem is inattention to the conceptual relationships *between* different lines of research. The consequence of this second problem is that the research landscape consists of isolated pockets of apparently-unrelated research findings, with little exploration of possible underlying connections.

The purpose of this paper is to analyze the conceptual relationships among the argument forms embodied in a number of message variations that have figured prominently in persuasion research. The central claim is that one relatively simple argumentative contrast underlies a great many of the – seemingly different – message variations that have been studied by persuasion researchers. This underlying unity has been obscured, however, precisely because persuasion researchers have not been attentive to the fundamental argumentative structures of the messages under investigation.

The persuasion research of central interest for the present paper turns out to involve studies of different kinds of appeals based on consequences or outcomes. This is unsurprising because, as has been widely noted, one of the most basic kinds of argument for supporting a recommended action (policy, behavior, etc.) is a conditional that links the advocated action as the antecedent with some desirable outcome as the consequent. The abstract form is “If the advocated action A is undertaken, then desirable consequence D will occur.” Sometimes the conditional is expressed relatively explicitly (“If you wear sunscreen, you’ll have attractive skin when you’re older”; “if our city creates dedicated bicycle lanes, the number of traffic accidents will be reduced”), sometimes not (“My proposed economic program will increase employment”; “this automobile gets great gas mileage”), but the underlying form of the appeal is the same.

This kind of argument has been recognized as distinctive in various treatments by argumentation scholars. Perelman (1959, p. 18) called this appeal form a “pragmatic argument,” an argument that “consists in estimating an action, or any event, or a rule, or whatever it may be, in terms of its favourable or unfavourable consequences.” Walton

(1996, p. 75) labeled it “argument from consequences,” describing it as “a species of practical reasoning where a contemplated policy or course of action is positively supported by citing the good consequences of it. In the negative form, a contemplated action is rejected on the grounds that it will have bad consequences.” And this sort of argument is a recognizably familiar kind of justification. For example, Schellens and de Jong (2004) reported that all 20 of the public information brochures they examined invoked arguments from consequences, whereas (for example) only six used authority-based appeals.

Although not anywhere explicitly acknowledged previously, a good deal of social-scientific persuasion research has addressed the question of the relative persuasiveness of different forms of consequence-based arguments. In particular, considerable research has addressed the differential persuasive effects of variation in the evaluative extremity of the consequences invoked by such arguments. This is not the only sort of variation in consequence-based argument that persuasion researchers have studied, but analyzing other more complex forms will require first having a clear picture of this simpler form.

So this paper focuses on research that examines how variations in the evaluative extremity of depicted consequences influences the persuasiveness of arguments. To describe this work clearly, however, requires distinguishing two forms that such evaluative-extremity variations can take: variation in the desirability of the depicted consequences of adopting the advocated action and variation in the undesirability of the depicted consequences of failing to adopt the advocated action. In what follows, each of these forms is discussed separately; a concluding section links these together and identifies questions for future work.

## 2. Variation in the desirability of the depicted consequences of adopting the advocated action

One recurring research question in persuasion effects research has – implicitly – been whether in consequence-based arguments, the persuasiveness of the argument is influenced by the *desirability* of the claimed consequence (or more carefully: whether the persuasiveness of the argument is influenced by the audience’s perception of the desirability of the claimed consequence.) Abstractly put, the experimental contrast here is between arguments of the form “If advocated action A is undertaken, then relatively *more* desirable consequence D1 will occur” and “If advocated action A is undertaken, then relatively *less* desirable consequence D2 will occur.”

Now one might think that this question would be too obvious to bother investigating. *Of course* appeals that invoke more desirable consequences will be more persuasive than those invoking less desirable consequences. However, the overt research question has not been expressed quite this baldly, but instead has been couched in other terms. For example, many studies have examined a question of the form “do people who differ with respect to characteristic X differ in their responsiveness to corresponding kinds of persuasive appeals?” – where characteristic X is actually a proxy for variations in what people value. This section of the paper reviews such research concerning four different personal characteristics: self-monitoring, consideration of future consequences, regulatory focus, and individualism-collectivism.

### 2.1. Self-monitoring and consumer advertising appeals

Considerable research attention has been given to the role of the personality variable of self-monitoring in influencing the relative persuasiveness of consumer advertising messages that deploy either image-oriented appeals or product-quality-oriented appeals. Self-monitoring refers to the control or regulation (monitoring) of one's self-presentation (see Gangestad & Snyder 2000, for a useful review paper). High self-monitors are concerned about the image they project to others, and tailor their conduct to fit the situation at hand. Low self-monitors are less concerned about their projected image, and mold their behavior to fit their attitudes and values rather than external circumstances.

Hence in the realm of consumer products, high self-monitors are likely to stress the image-related aspects of products, whereas low self-monitors are more likely to be concerned with whether the product's intrinsic properties match the person's criteria for such products. Correspondingly, high and low self-monitors are expected to differ in their reactions to different kinds of consumer advertising, and specifically are expected to differentially react to appeals emphasizing the image of the product or its users and appeals emphasizing the intrinsic quality of the product (see, e.g., Snyder & DeBono 1987).

Consistent with this analysis, across a large number of studies, high self-monitors have been found to react more favorably to image-oriented advertisements than to product-quality-oriented ads, whereas the opposite effect is found for low self-monitors (for a summary of this work, see O'Keefe 2002, pp. 37-40). Parallel differences between high and low self-monitors have been found with related appeal variations outside the realm of consumer-product advertising (e.g., Lavine & Snyder, 1996).

Although these effects are conventionally described as a matter of high and low self-monitors having different "attitude functions" to which messages are adapted (e.g., DeBono, 1987), a more parsimonious account is that these effects reflect differential evaluation of consequences (for a fuller rendition of this argument, see O'Keefe 2002, pp. 46-48). High and low self-monitors do characteristically differ in their evaluations of various outcomes and object attributes; for instance, high self-monitors place a higher value on aspects of self-image presentation. Given this difference in evaluation, it is entirely unsurprising that high self-monitors find image-oriented appeals to be especially persuasive in comparison to appeals emphasizing product attributes that are, in their eyes, not so desirable (e.g., DeBono, 1987; Snyder & DeBono, 1985). That is, product-quality appeals and image-oriented appeals are differentially persuasive to high self-monitors because the appeals invoke differentially desirable consequences. And the same reasoning applies to low self-monitors: they value the sorts of product attributes mentioned in the product-quality-oriented appeals more than they do those mentioned in the image-oriented appeals – and so naturally are more persuaded by the former than by the latter.

So although this research masquerades as a question about the role of a personality variable in attitude function and persuasion, what the research shows is that for a given message recipient, appeals will be more persuasive if they offer the prospect of consequences the recipient finds relatively more desirable than if they offer the prospect of consequences the recipient finds relatively less desirable. Because high and low self-monitors differ in their relative evaluation of image-oriented and product-quality-oriented consequences, appeals that invoke different kinds of consequences correspondingly vary in persuasiveness.

None of this should be taken to denigrate the usefulness of research on self-monitoring and persuasive appeals. It is valuable to know that people systematically differ

in their relative evaluations of (specifically) the image-oriented characteristics and the product-quality-oriented characteristics of consumer products, and hence that image-oriented advertising and product-quality-oriented advertising will be differentially persuasive depending on the audience's level of self-monitoring.

But what underlies these findings is a rather more general phenomenon, namely, the greater persuasiveness of arguments that emphasize outcomes deemed especially desirable by the audience. At least when it comes to the consequences invoked by the arguments in these studies' messages, self-monitoring variations go proxy for value variations – and hence these effects of self-monitoring variations on the persuasiveness of different appeals can be straightforwardly ascribed to the underlying variation in evaluations.

## 2.2. Consideration of future consequences (CFC) and corresponding appeal variations

An example entirely parallel to that of self-monitoring is provided by research concerning the individual-difference variable known as “consideration of future consequences” (CFC; Strathman, Gleicher, Boninger, & Edwards 1994). As the name suggests, this refers to differences in the degree to which people consider temporally distant (future) as opposed to temporally proximate (immediate) consequences of contemplated behaviors.

Perhaps unsurprisingly, persons differing in CFC respond differently to persuasive messages depending on whether the message's arguments emphasize immediate consequences (more persuasive for those low in CFC) or long-term consequences (more persuasive for those high in CFC). For example, Orbell and Hagger (2006) presented participants with one of two messages describing both positive and negative consequences of participating in a diabetes screening program. Participants low in CFC were more persuaded when the message described short-term positive consequences and long-term negative consequences; participants high in CFC were more persuaded by the message that described short-term negative consequences and long-term positive consequences. (Similarly, see Orbell & Kyriakaki 2008.)

As with the self-monitoring research, these findings – even if unsurprising – do represent a genuine contribution. If nothing else, such research underscores the importance of persuaders' thinking about whether the consequences they intend to emphasize are long-term or short-term, and how that connects to their audience's likely dispositions. That is, one important substantive dimension of variation in consequences is their temporal immediacy, and attending to that dimension can thus be important for successful advocacy.

But, as with self-monitoring, what underlies these findings is the general phenomenon of heightened persuasiveness of arguments-from-consequences that emphasize more desirable consequences of the advocated viewpoint. At least when it comes to the consequences invoked by the arguments in these studies' messages, CFC variations go proxy for value variations – and hence the effects of CFC variations on the persuasiveness of different appeals can be straightforwardly ascribed to the underlying variation in evaluations.

## 2.3. Regulatory focus and corresponding appeal variations

Yet another parallel example is provided by research concerning individual differences in “regulatory focus” (Higgins, 1997, 1998). Briefly, regulatory-focus variations reflect broad differences in people's motivational goals, and specifically a difference between a

promotion focus, which emphasizes obtaining desirable outcomes (and hence involves a focus on accomplishments, aspirations, etc.), and a prevention focus, which emphasizes avoiding undesirable outcomes (and hence involves a focus on safety, security, etc.). This individual difference obviously affords a possible basis for adaptation of persuasive messages.

Perhaps unsurprisingly, persons differing in regulatory focus respond differently to persuasive messages depending on whether the message's arguments emphasize promotion-oriented outcomes or prevention-oriented outcomes. For example, Cesario, Grant, and Higgins (2004, Study 2) presented participants with messages advocating a new after-school program for elementary and high school students, with the supporting arguments expressed either in promotion-oriented ways ("The primary reason for supporting this program is because it will advance children's education and support more children to succeed") or in prevention-oriented ways ("The primary reason for supporting this program is because it will secure children's education and prevent more children from failing"; p. 393). As one might expect, participants tended to be more persuaded by appeals that matched their motivational orientation. (For a general review of such research, see Lee & Higgins 2009.) [Notice that an alternative description of this appeal variation is to say that what varies here is whether the desirable consequences of the advocated action are expressed as the obtaining of some good state (more persuasive for promotion-oriented audiences) or as the avoidance of some bad state (more persuasive for prevention-oriented audiences).]

As with research concerning self-monitoring and CFC, this work identifies another substantive dimension of variation in the consequences associated with the advocated behavior, namely, whether the consequences concern prevention or promotion. This finding is useful, as it can emphasize to persuaders that, depending on the receiver's regulatory focus, advocates might prefer to emphasize either prevention-related or promotion-related outcomes.

But, as with self-monitoring and CFC, what underlies these findings is the general phenomenon of the greater persuasiveness of arguments-from-consequences that invoke more desirable consequences of the advocated action. At least when it comes to the consequences invoked by the arguments in these studies' messages, regulatory focus variations go proxy for value variations – and hence the effects of regulatory focus variations on the persuasiveness of different appeals can be straightforwardly ascribed to the underlying variation in evaluations. (For research linking regulatory-focus variations with variations in more abstract personal values, see Leikas, Lonnqvist, Verkasalo, & Lindeman 2009.)

#### 2.4. Individualism-collectivism and corresponding appeal variations

A final parallel example is provided by research on "individualism-collectivism," which refers to the degree to which individualist values (e.g., independence) are prioritized as opposed to collectivist values (e.g., interdependence). Although there is variation from person to person in individualism-collectivism, this dimension of difference has commonly been studied as one element of larger cultural orientations (see Hofstede 1980, 2001). So, for example, Americans are likely to be relatively individualistic whereas (say) Koreans are more likely to be collectivistic. This variation in cultural values obviously affords a possible basis for adaptation of persuasive messages.

Perhaps unsurprisingly, persons from cultures differing in individualism-collectivism respond differently to persuasive messages depending on whether the message's appeals emphasize individualistic or collectivistic outcomes (for a review, see Hornikx & O'Keefe 2009). For example, advertisements for consumer goods are more persuasive for American audiences when the ads emphasize individualistic outcomes ("this watch will help you stand out") rather than collectivistic ones ("this watch will help you fit in"), with the reverse being true for Chinese audiences (e.g., Aaker & Schmitt 2001). This effect plainly reflects underlying value differences – differences in the evaluation of various attributes of consumer products.

Thus, as with self-monitoring, CFC, and regulatory focus, these effects derive from the general phenomenon of the greater persuasiveness of consequence-based arguments that invoke more desirable consequences of the advocated action. At least when it comes to the consequences invoked by the arguments in these studies' messages, individualism-collectivism variations go proxy for value variations – and hence these effects of individualism-collectivism variations on the persuasiveness of different appeals can be straightforwardly ascribed to the underlying variation in evaluations.

## 2.5. The argument thus far

To summarize the argument to this point: Consequence-based appeals are more persuasive when they invoke consequences of the advocated view that are (taken by the audience to be) relatively more desirable than when they invoke consequences that the audience doesn't value so highly. Individuals can vary in their evaluations of consequences of an action, and so matching appeals to the audience's evaluations is important for persuasive success. Individual variations in the evaluation of particular sorts of consequences can be indexed in a great many different ways – by differences in self-monitoring, or in individualistic-collectivistic orientations, or in regulatory focus, or in consideration of future consequences – but these all reflect underlying variation in the evaluations of consequences.

So what might seem on the surface to be a crazy quilt of isolated research findings – about self-monitoring, regulatory focus, and so forth – in fact represents the repeated confirmation of a fundamental truth about what makes consequence-based arguments persuasive: Arguments-from-consequences are more persuasive to the extent that they emphasize how the advocated view yields outcomes thought by the audience to be relatively more (rather than less) desirable.

## 2.6. Argument quality variations in elaboration likelihood model research

The four lines of research discussed to this point have all involved differences between people (either individual or cultural differences). The general idea has been that persons differ on some variable (e.g., self-monitoring), and that persuasive appeals matched to the audience's level of that variable will be more persuasive than mismatched appeals. But these variables all turn out to be associated with systematic underlying variation in the evaluation of the consequences of the advocated action, and what makes a persuasive appeal matched or mismatched turns out to depend on whether the appeal emphasizes relatively more or relatively less desirable consequences (the former representing matched appeals, the latter mismatched).

However, the same basic phenomenon can be detected in an area of persuasion research not involving individual differences, namely the effects of variation in “argument quality.” Argument-quality variations have figured prominently in research on Petty and Cacioppo’s well-known elaboration likelihood model of persuasion (ELM; Petty & Cacioppo, 1986).

ELM researchers have used variations in (what has been called) argument quality (or argument strength) as a device for assessing the degree to which message recipients closely attended to message contents. For example, Petty, Cacioppo, and Goldman (1981) varied argument quality, source expertise, and the audience’s involvement with the persuasive issue (that is, the personal relevance of the issue). Under conditions of low involvement, the persuasiveness of the message was more influenced by variations in expertise than by variations in argument quality; under conditions of high involvement, the reverse pattern obtained. The implication is that under conditions of higher involvement, audiences were more closely processing the message and so were more attentive to argument quality variations.

In such ELM research, “argument quality” has been defined in terms of persuasive effects. That is, a high-quality argument is one that, in pretesting, is relatively more persuasive (compared to a low-quality argument) under conditions of high elaboration (close message processing). But what makes those high-quality arguments more persuasive?

ELM researchers have not been very interested in identifying exactly what makes their “strong” and “weak” arguments vary in effectiveness. From the perspective of ELM researchers, argument quality variations have been used “primarily as a methodological tool to examine whether some other variable increases or decreases message scrutiny, not to examine the determinants of argument cogency per se” (Petty & Wegener, 1998, p. 352).

But other researchers have naturally been concerned to identify the “active ingredient” in these ELM manipulations. And although the picture is not yet entirely clear, there is good reason to suppose that a – if not the – key ingredient in ELM argument quality variations is precisely variation in the evaluation of the consequences invoked by the arguments. (For some empirical evidence on this matter, see Areni & Lutz 1988; van Enschot-van Dijk, Hustinx, & Hoeken 2003; Hustinx, van Enschot, & Hoeken 2007; see also Johnson, Smith-McLallen, Killea, & Levin 2004.) That is, it now looks likely that the kinds of “argument quality” variations used in ELM research reflect underlying variations in the desirability of claimed consequences – the “strong argument” messages used consequence-based arguments with highly desirable outcomes, whereas the “weak argument” messages used consequence-based arguments with less desirable outcomes. Small wonder, then, that the strong arguments should turn out to generally be more persuasive than the weak arguments (see Park, Levine, Westermann, Orfgen, & Foregger 2007, p. 94).

To illustrate this point concretely: One much-studied message topic in ELM research has been a proposal to mandate university senior comprehensive examinations as a graduation requirement. In studies with undergraduates as research participants, the “strong argument” messages used arguments such as “with mandatory senior comprehensive exams at our university, graduates would have better employment opportunities and higher starting salaries,” whereas the “weak argument” messages had arguments such as “with mandatory senior comprehensive exams at our university, enrollment would increase” (see Petty & Cacioppo 1986, pp. 54-59, for examples of such arguments). It’s not surprising that, at least

under conditions of relatively high elaboration (that is, close attention to message content), the “strong argument” messages would be more persuasive than the “weak argument” messages, because the messages almost certainly varied in the perceived desirability of the claimed outcomes.

So here is yet another empirical confirmation of the general point that consequence-based arguments become more persuasive with greater perceived desirability of the claimed consequences of the advocated view. This argument-quality research offers a slightly different kind of evidentiary support than that represented by the previously-discussed individual-difference research (self-monitoring and so on), because here there likely is relative uniformity across audience members in the comparative evaluations of the consequences under discussion. That is, among the message recipients in the ELM studies, there was presumably general agreement that (for example) enhanced employment opportunities is a more desirable consequence (of the proposed examinations) than is increased university enrollment, whereas the individual-difference studies focused on circumstances in which study participants varied in their evaluations. (Of course, within a given condition – such as among high self-monitors – there would be relative homogeneity of evaluations.)

### 2.7. Summary: Variation in the desirability of the consequences of the advocated action

The effects observed in a number of distinct lines of persuasion research appear to all be driven by one fundamental underlying phenomenon, namely, that the persuasiveness of consequence-based arguments is influenced by the desirability of the depicted consequences of the advocated view: As the desirability of those consequences increases, the persuasiveness of the arguments is enhanced. This commonality has not been so apparent as it might have been, because persuasion researchers have not been attentive to the argumentative structure of the appeals used in their experimental messages. But once it is seen that these various lines of research all involve arguments based on consequences, and once it is seen that the experimental messages vary with respect to the desirability of the consequences invoked, then it becomes apparent that one basic process gives rise to all these apparently unrelated effects.

Indeed, this may justifiably be thought of as perhaps the single best-supported empirical generalization about persuasion that can be described to date. Findings from a variety of different lines of research – self-monitoring, consideration of future consequences, regulatory focus, individualism-collectivism, argument quality – all buttress the conclusion that consequence-based arguments emphasizing relatively more desirable consequences of the advocated action are likely to be more persuasive than are arguments emphasizing relatively less desirable consequences.

### 3. Variation in the undesirability of the depicted consequences of not adopting the advocated action

The just-discussed appeal variation involves variations in the consequent of a conditional in which the antecedent was adoption of the communicator’s recommendation (“If advocated action A is undertaken”). But a parallel appeal variation can be identified in which the antecedent is a failure to adopt the recommended action (“If advocated action A



is *not* undertaken”) and the *undesirability* of the consequence varies. Abstractly put, the contrast here is between arguments of the form “If advocated action A is not undertaken, then *slightly* undesirable consequence U1 will occur” and “If advocated action A is not undertaken, then *very* undesirable consequence U2 will occur.” And the research question is: which of these will be more persuasive?

Again, one might think that this question too obvious to merit study. *Of course* appeals that invoke very undesirable consequences will be more persuasive than those invoking mildly undesirable consequences. Nonetheless, this turns out to have been the object of considerable empirical research – but, as above, the research question has not been stated quite this plainly.

The work of interest here is research on “fear appeals,” which are messages that invoke the specter of undesirable consequences from failing to follow the communicator’s recommendations. Fear appeal research has addressed a number of different questions concerning the invocation of fear-arousing consequences as a means of persuasion, but one substantial line of work in this area has implicitly addressed the appeal variation of interest here. Specifically, considerable research has manipulated fear-arousal messages so as to vary the depicted undesirability of the consequences. In theoretical frameworks such as protection motivation theory (Rogers & Prentice-Dunn 1997), this is represented as variation in “threat severity.” Perhaps unsurprisingly, the general research finding has been that threats perceived as more severe (i.e., more undesirable) make for more effective persuasive appeals than do threats perceived as less severe (less undesirable); see, for example, the meta-analytic reviews of Floyd, Prentice-Dunn, and Rogers (2000) and Witte and Allen (2000).

This appeal variation – where the consequences of not adopting the advocated action differ in their undesirability – can be housed together with the previously-discussed variations involving different desirability of the claimed consequences of adoption. Abstractly put, these comparisons consider variations in the extremity of evaluation of claimed outcomes (the degree of desirability of the consequences of adoption, or the degree of undesirability of the consequences of nonadoption). Unsurprisingly, consequences that are evaluated more extremely (more desirable consequences of adopting the advocated action, or more undesirable consequences of failing to adopt the advocated action) make for more persuasive appeals than do consequences that are less extremely evaluated.

Thus, as with self-monitoring, CFC, regulatory focus, individualism-collectivism, and argument quality, what produces these fear appeal threat-severity effects is the general phenomenon of the greater persuasiveness of consequence-based arguments that invoke more extremely evaluated consequences. Variations in perceived threat severity plainly represent variations in the evaluative extremity of potential outcomes—and hence these effects of variations in depicted threat severity can be straightforwardly ascribed to the underlying variation in evaluations.

#### 4. Conclusion

Any persuasive circumstance that permits identification of systematic variation across individuals in the extremity of the evaluation of consequences is one that permits corresponding adaptation of persuasive appeals. If people of kind X and people of kind Y generally vary in their evaluation of the outcomes of a given action, then a persuader will

want to craft different appeals to type X audiences and to type Y audiences. As discussed above, such systematic value variations are associated with self-monitoring differences, variations in cultural background, variations in “consideration of future consequences,” and variations in regulatory focus – and hence each of these individual-difference variations provides a basis for corresponding appeal adaptation.

Similarly, any persuasive circumstance in which there is relative uniformity (in a given audience) of the evaluation of particular consequences is a circumstance that permits corresponding construction of appeals in ways likely to maximize the chances of persuasive success. When describing the consequences of adoption of the advocated course of action, advocates will naturally want to emphasize those consequences the audience thinks most desirable (as ELM research on argument quality suggests). When describing the consequences of failing to adopt the advocated action, advocates will naturally want to emphasize those consequences the audiences thinks most undesirable (as fear appeal research on threat severity suggests).

But, as will be apparent by now, the underlying phenomenon is exactly the same in all these different lines of research. That may not have been easy to see without closely considering the underlying argumentative structure of these appeals – but once seen, the common thread is obvious: Persuasion researchers have confirmed, over and over again, that the persuasiveness of consequence-based arguments is affected by the evaluative extremity of the depicted consequences.

Now the research to date does add something beyond this broad generalization, because it identifies various substantively different kinds of outcomes whose evaluations might vary. To express this in concrete message-design terms: An advocate can, in addition to thinking abstractly about the audience’s perceived desirability of various consequences, also think concretely about some more specific substantive aspects of the contemplated arguments. For example: Do the contemplated appeals mostly emphasize long-term rather than short-term consequences, and are consequences of that sort likely to appeal to the audience? Do the contemplated appeals mostly emphasize promotion-oriented rather than prevention-oriented consequences, and are consequences of that sort likely to appeal to the audience? And so forth. Still, what makes these substantive variations of interest is precisely that they correspond to underlying systematic differences in evaluation – and the underlying evaluative differences are what’s crucial.

#### 4.1. Questions for future research

The present analysis invites three questions for future exploration: (1) What is the size of the persuasive advantage conferred by invoking evaluatively more extreme consequences? (2) Might consequence-based arguments vary in other ways (besides the evaluative extremity of the consequences) that affect persuasive success? (3) Can this analysis be extended so as to encompass and illuminate other lines of persuasion research?

##### 4.1.1. The size of the persuasive advantage provided by invoking more extremely-evaluated consequences

One question is that of the size of the persuasive advantage conferred by invoking relatively more extremely-evaluated consequences. That is, even though it seems plain that messages invoking evaluatively more extreme consequences are more persuasive, that leaves open

the question of just how much more persuasive they are. In a few of the research areas discussed here, some meta-analytic work has been undertaken that speaks to this matter (e.g., Floyd et al. 2000; Hornikx & O’Keefe 2009; Witte & Allen 2000), but additional such work – and comparative assessment that might indicate whether certain sorts of substantive variations are more consequential than others – would be valuable, both for practical reasons (as it would suggest what sorts of variations are worth special attention from advocates) and for larger theoretical reasons (because it will specify phenomena for explanation).

#### 4.1.2. Other features of consequence-based argument variation

A second question to be addressed is whether there are other features of consequence-based argument variation (beyond those previously discussed) that are important for persuasive outcomes. This question has two facets. One is whether there are other identifiable substantive dimensions of variation (other than the previously-discussed ones – long-term versus short-term consequences, image-oriented versus product-quality-oriented, etc.) that can go proxy for evaluative variations. For example, one might wonder whether there is any general difference in persuasiveness between appeals that emphasize consequences for the message recipient as opposed to consequences for others (see, e.g., Kelly 2007; White & Peloza 2009). Similarly, one might consider whether expressing a given consequence of the advocated action as producing a desirable outcome (“if you exercise, you’ll feel energized later”) or as avoiding an undesirable outcome (“if you exercise, you’ll avoid feeling tired later”) – or the parallel of expressing the consequences of failing to engage in the advocated action as a foregone desirable outcome (“if you don’t exercise, you’ll miss out on feeling energized later”) or an obtained undesirable outcome (“if you don’t exercise, you’ll feel tired later”) – makes for any general difference in persuasiveness; it might be that “feeling energized later” and “avoiding feeling tired later” are differentially evaluated, either in general or by certain kinds of people. [This matter is related to the earlier discussion of regulatory focus. In studies of persuasive appeals and regulatory-focus variations, a common message contrast is between appeals emphasizing that the advocated action leads to some desirable outcome (a promotion-focused appeal) and appeals emphasizing that the advocated action leads to the avoidance of some undesirable outcome (a prevention-focused appeal).]

The second facet of this question is whether there are persuasiveness-relevant features of consequence-based argument variation other than the evaluative extremity of consequences. Perhaps most obviously, variations in the depicted *likelihood* of consequences might be considered as potentially important for persuasion. The variation of interest here might be described as that reflected in the differences among “If the advocated action A is undertaken, then desirable consequence D will *certainly* occur” and “If the advocated action A is undertaken, then desirable consequence D will *probably* occur,” “If the advocated action A is undertaken, then desirable consequence D will *possibly* occur,” and so on. [And there’s the parallel set of variations for arguments focused on the consequences of failing to adopt the advocated view: “If advocated action A is not undertaken, then undesirable consequence U will *certainly* (or *probably* or *possibly*) occur.”]

Consequence-likelihood variation in consequence-based arguments seems to have received rather less empirical attention than consequence-evaluation variation. What

relevant work does exist is scattered in separate lines of research, such as fear appeal research concerning effects of variations in depicted threat vulnerability (e.g., Floyd et al. 2000), research on belief strength and likelihood-based appeals (e.g., Hass, Bagley, & Rogers 1975; Smith-McLallen 2005), and so forth. Plainly, systematic and thorough consideration of the effects of such variations would be useful.

#### 4.1.3. Other lines of persuasion research

One final question is whether the present analysis can be extended so as to encompass additional message variations that figure prominently in the persuasion research literature. For example, the contrast between gain-framed and loss-framed appeals (e.g., Meyerowitz & Chaiken 1987) looks to be the difference between two forms of consequence-based argument, namely, a consequences-of-compliance form (“If the advocated action A is undertaken, then desirable consequence D will occur”) and a consequences-of-noncompliance form (“If advocated action A is not undertaken, then undesirable consequence U will occur”).

As another example, fear appeal messages paradigmatically have two components. One is a fear-arousal component, meant to arouse fear or anxiety concerning possible undesirable events, and the other is a recommended-action component, meant to provide a course of action for avoiding those negative outcomes. But this seems to be a combination of two consequence-based arguments, one focused on the undesirable consequences of noncompliance (the fear-arousal element), one focused on the desirable consequences of compliance (the recommended-action element). Thus exemplary fear-appeal messages would seem conceptually to be identical in argumentative structure to what elsewhere have sometimes been termed “mixed-frame” messages, that is, messages involving both gain-framed and loss-framed appeals (e.g., Latimer et al. 2008).

In short, it seems plausible that other areas of persuasion research might be usefully examined with an eye to considering similarities and differences in the underlying argumentative structure of the message variations involved.

#### 4.2. Coda: argumentation studies and persuasion research

One way of describing the current project is to say that it seeks to bring the sensibilities of an argument analyst to bear on some of the message types that have figured prominently in persuasion research. The purpose has been to try to bring some greater clarity to that research, by identifying common argumentative forms (and variations) within seemingly different lines of empirical research. In addition to whatever value this has for illuminating persuasion research, perhaps it might also serve as an illustration that an ongoing dialogue between argumentation studies and persuasion research can continue to bear fruit.

## REFERENCES

- Aaker, J. L., & Schmitt, B. (2001). Culture-dependent assimilation and differentiation of the self: Preferences for consumption symbols in the United States and China. *Journal of Cross-Cultural Psychology, 32*, 561–576.
- Areni, C. S., & Lutz, R. J. (1988). The role of argument quality in the elaboration likelihood model. *Advances in Consumer Research, 15*, 197-203.
- Cesario, J., Grant, H., & Higgins, E. T. (2004). Regulatory fit and persuasion: Transfer from “feeling right.” *Journal of Personality and Social Psychology, 86*, 388-404.
- DeBono, K. G. (1987). Investigating the social-adjustive and value-expressive functions of attitudes: Implications for persuasion processes. *Journal of Personality and Social Psychology, 52*, 279-287.
- Enschot-van Dijk, R. van, Hustinx, L., & Hoeken, H. (2003). The concept of argument quality in the elaboration likelihood model: A normative and empirical approach to Petty and Cacioppo’s “strong” and “weak” arguments. In F. H. van Eemeren, J. A. Blair, C. A. Willard & A. F. Snoeck Henkemans (Eds.), *Anyone Who Has a View: Theoretical Contributions to the Study of Argumentation* (pp. 319-335) Amsterdam: Kluwer.
- Floyd, D. L., Prentice-Dunn, S., & Rogers, R. W. (2000). A meta-analysis of research on protection motivation theory. *Journal of Applied Social Psychology, 30*, 407-429.
- Gangestad, S. W., & Snyder, M. (2000). Self-monitoring: Appraisal and reappraisal. *Psychological Bulletin, 126*, 530-555.
- Hass, J. W., Bagley, G. S., & Rogers, R. W. (1975). Coping with the energy crisis: Effects of fear appeals upon attitudes toward energy consumption. *Journal of Applied Psychology, 60*, 754-756.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280-1300.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. *Advances in Experimental Social Psychology, 30*, 1-46.
- Hofstede, G. (1980). *Culture’s Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage.
- Hofstede, G. (2001). *Culture’s Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations* (2nd ed.). Thousand Oaks, CA: Sage.
- Hornikx, J., & O’Keefe, D. J. (2009). Adapting consumer advertising appeals to cultural values: A meta-analytic review of effects on persuasiveness and ad liking. *Communication Yearbook, 33*, 39-71.
- Hustinx, L., van Enschoot, R., & Hoeken, H. (2007). Argument quality in the elaboration likelihood model: An empirical study of strong and weak arguments in a persuasive message. In F. H. van Eemeren, J. A. Blair, C. A. Willard & B. Garssen (Eds.), *Proceedings of the Sixth Conference of the International Society for the Study of Argumentation* (pp. 651-657). Amsterdam: Sic Sat.
- Johnson, B. T., Smith-McLallen, A., Killeya, L. A., & Levin, K. D. (2004). Truth or consequences: Overcoming resistance to persuasion with positive thinking. In E. S. Knowles & J. A. Linn (Eds.), *Resistance and Persuasion* (pp. 215-233). Mahwah, NJ: Erlbaum.
- Kelly, B. J. (2007). Effects of benefit-target framing on intentions to engage in avian flu vaccination and other health behaviors (Doctoral dissertation). Retrieved from UMI. (UMI No. AAT-3300394)

- Latimer, A. E., Rench, T. A., Rivers, S. E., Katulak, N. A., Materese, S. A., Cadmus, L., Hicks, A., Hodorowski, J. K., & Salovey, P. (2008). Promoting participation in physical activity using framed messages: An application of prospect theory. *British Journal of Health Psychology, 13*, 659-681.
- Lavine, H., & Snyder, M. (1996). Cognitive processing and the functional matching effect in persuasion: The mediating role of subjective perceptions of message quality. *Journal of Experimental Social Psychology, 32*, 580-604.
- Lee, A. Y., & Higgins, E. T. (2009). The persuasive power of regulatory fit. In M. Wanke (Ed.), *The Social Psychology of Consumer Behavior* (pp. 319-333). New York: Psychology Press.
- Leikas, S., Lonnqvist, J.-E., Verkasalo, M., & Lindeman, M. (2009). Regulatory focus systems and personal values. *European Journal of Social Psychology, 39*, 415-429.
- Meyerowitz, B. E., & Chaiken, S. (1987). The effect of message framing on breast self-examination attitudes, intentions, and behavior. *Journal of Personality and Social Psychology, 52*, 500-510.
- O'Keefe, D. J. (2002). *Persuasion: Theory and Research* (2nd ed.). Thousand Oaks, CA: Sage.
- O'Keefe, D. J. (2003). Message properties, mediating states, and manipulation checks: Claims, evidence, and data analysis in experimental persuasive message effects research. *Communication Theory, 13*, 251-274.
- Orbell, S. & Hagger, M. (2006). Temporal framing and the decision to take part in Type 2 diabetes screening: Effects of individual differences in consideration of future consequences on persuasion. *Health Psychology, 25*, 537-548.
- Orbell, S. & Kyriakaki, M. (2008). Temporal framing and persuasion to adopt preventive health behavior: Moderating effects of individual differences in consideration of future consequences on sunscreen use. *Health Psychology, 27*, 770-779.
- Park, H. S., Levine, T. R., Westermann, C. Y. K., Orfgen, T., & Foregger, S. (2007). The effects of argument quality and involvement type on attitude formation and attitude change: A test of dual-process and social judgment predictions. *Human Communication Research, 33*, 81-102.
- Perelman, C. (1959). Pragmatic arguments. *Philosophy, 34*, 18-27.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. New York: Springer-Verlag.
- Petty, R. E., Cacioppo, J. T., & Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. *Journal of Personality and Social Psychology, 41*, 847-855.
- Petty, R. E., & Wegener, D. T. (1998). Attitude change: Multiple roles for persuasion variables. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *Handbook of Social Psychology* (4th ed., Vol. 1, pp. 323-390). Boston: McGraw-Hill.
- Rogers, R. W., & Prentice-Dunn, S. (1997). Protection motivation theory. In D. Gochman (Ed.), *Handbook of Health Behavior Research, Vol. 1: Personal and Social Determinants* (pp. 113-132). New York: Plenum.
- Schellens, P. J., & de Jong, M. (2004). Argumentation schemes in persuasive brochures. *Argumentation, 18*, 295-323.
- Smith-McLallen, A. (2005). Is it true? (When) does it matter? The roles of likelihood and desirability in argument judgments and attitudes (Doctoral dissertation). Retrieved from UMI. (UMI No. AAT-3187759)

- Snyder, M., & DeBono, K. G. (1985). Appeals to image and claims about quality: Understanding the psychology of advertising. *Journal of Personality and Social Psychology, 49*, 586-597.
- Snyder, M., & DeBono, K. G. (1987). A functional approach to attitudes and persuasion. In M. P. Zanna, J. M. Olson & C. P. Herman (Eds.), *Social Influence: The Ontario Symposium, Vol. 5* (pp. 107-125). Hillsdale, NJ: Erlbaum.
- Strathman, A., Gleicher, F., Boninger, D. S., & Edwards, C. S. (1994). The consideration of future consequences: Weighing immediate and distant outcomes of behavior. *Journal of Personality and Social Psychology, 66*, 742-752.
- Walton, D. N. (1996). *Argumentation Schemes for Presumptive Reasoning*. Mahwah, NJ: Erlbaum.
- White, K., & Peloza, J. (2009). Self-benefit versus other-benefit marketing appeals: Their effectiveness in generating charitable support. *Journal of Marketing, 73*, 109-124.
- Witte, K., & Allen, M. (2000). A meta-analysis of fear appeals: Implications for effective public health campaigns. *Health Education and Behavior, 27*, 591-615.