

How an interest in fiction could have evolved

A review of *Comeuppance: Costly Signaling, Altruistic Punishment, and Other Biological Components of Fiction*

Michelle Scalise Sugiyama

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What is it about the design of the human mind that makes us care about fictional characters and events? This is the question at the heart of William Flesch’s *Comeuppance: Costly Signaling, Altruistic Punishment, and Other Biological Components of Fiction* (Cambridge: Harvard University Press, 2007, \$39.95, 252 pp.), which explores narrative’s “conditions of possibility” (Flesch 2007, p. 4). Flesch argues that narrative emerges from capacities that evolved for strong reciprocity, which he defines à la Gintis (2000) as cooperation with others or punishment of noncooperators “even when this behavior cannot be justified in terms of extended kinship or reciprocal altruism” (2000:169). All stories, Flesch argues, are essentially about an innocent who gets cheated and someone, other than the innocent, who seeks to punish the cheater. Thus, narrative engages our evolved tendencies to want cheaters to be punished and to monitor the behavior of others to this end —“We want to see strong reciprocity: our own tendencies toward strong reciprocity begin as monitoring others for it. We don’t have to be the responders, but we do want to see the proper response, and this is our basic emotional attitude toward narrative” (Flesch 2007, p. 103).

Regardless of one’s position regarding the power of strong reciprocity as an explanatory framework, its application in this case is problematic. Firstly, narrative production is dependent upon numerous cognitive mechanisms (e.g., representation, theory of mind, shared attention, language); its “conditions of possibility” are therefore several. Secondly, monitoring conspecifics potentially yields numerous fitness payoffs, such as finding food, avoiding toxins, obtaining mating opportunities, guarding mates, protecting offspring and avoiding predators. It is unlikely, then, that “we have explicitly evolved the ability and desire to track others ... precisely in order to punish the guilty” (Flesch 2007, p. 21), or that our emotional interest in fiction derives solely from the recruitment of mechanisms for monitoring free riding.

Also problematic is Flesch’s claim that “it is very hard to think of protagonists of any interesting story ... whose characters don’t include some element of altruistic punishment” (Flesch 2007, p. 67). Perhaps, but it is also hard to imagine protagonists whose characters do not include “some element” of parent–offspring conflict, sibling rivalry, kin altruism, mate preferences and all the other components of human cognitive architecture. Cheating and punishment are certainly recurrent themes in fiction (e.g., tricksters; Scalise Sugiyama, 2008), but narrative encompasses the entire theater of human interest and conflict (e.g., Barash & Barash, 2005). Characters who evince an “element of altruistic punishment” are not proof that our emotional involvement in narrative is rooted entirely or even primarily in the triggering of mechanisms dedicated to altruistic punishment. Some of the most gripping scenes in *Jurassic Park* involve humans using their superior mental toolkit to avoid becoming fuel for a dinosaur’s superior physical toolkit. And *Jurassic Park* is no fluke: predators are a perennial topic in the oral literature of foraging and peasant societies (Scalise Sugiyama, 2004, 2006). The more parsimonious explanation of our emotional involvement in such scenes is that they engage aspects of our predator avoidance psychology, not mechanisms dedicated to monitoring conspecifics for strong reciprocity.

There is no good theoretical reason for attributing the emotional appeal of stories to the engagement of a single cognitive module. Narrative is rooted in cognitive modeling, the ability to create and maintain mental cause-and-effect models of the world to preview potential ramifications of various courses of action (Tooby & De Vore, 1987). This ability is highly elaborated in humans and enables us to manipulate our environment in complex ways, such as using fire to flush game, harden spear points or control plant pests and disease. It also enables us to model possible actions of other human beings, which is instrumental to navigating and manipulating our social environment in ways that advance our fitness interests. Modeling an actual social world and modeling a fictional one are similar cognitive tasks: both entail making cause-and-effect representations of hypothetical human actions within a given set of constraints. Language allows us to “translate” these models into verbal form and share them with extreme efficiency.

On this view, stories are cognitive models — cause-and-effect representations of possible human goals and strategies for pursuing them within a given environment (Scalise Sugiyama, 1996, 2001a, 2005, 2008). As such, stories are capable of modeling responses to a wide range of adaptive problems and, accordingly, engaging a wide range of cognitive mechanisms — including mechanisms dedicated to cognitive modeling. Humans are designed to make and attend to cognitive models of their environment; ergo, stories engage our attention and emotion, in part, because attending to models of the social and physical environment had decided fitness payoffs for our ancestors.

There is, however, an important difference between representations of actual and fictional worlds: both engage our emotional systems, but the latter do not engage action systems (Pinker, 1997; Tooby & Cosmides, 2001). We experience fear when a homicidal maniac appears on screen, yet we do not run from the theater. Flesch argues that our emotional engagement in fiction is evidence against the hypothesis that narrative is an information acquisition device: “If narrative were primarily a vehicle for learning about the world around us, we would do a lot better learning its lessons dispassionately. Passionate interest ... is the least reliable mode of curiosity and therefore unlikely to have evolved as a way to facilitate the transfer of important information about the real world” (Flesch 2007, p. 11). On the contrary, the triggering of emotion programs is integral to certain kinds of learning (e.g., Tooby & Cosmides 1990); as a representation of real-world experience, fiction may simulate cues that trigger various emotion programs, thereby making the information they contain available to other systems (Tooby & Cosmides 2001; see also Cosmides & Tooby, 2000a, 2000b).

It is unclear what Flesch thinks narrative represents. He claims both that “[e]ffective narratives are ... likely to be accurate representations of human interactions, just because genuine human interactions are what we are so attuned to monitor” (Flesch 2007, p. 72) and that characters’ “verisimilitude needn’t and usually doesn’t involve the same natural psychological constitution as that of their audience” (Flesch 2007, p. 231, note 109). The indeterminacy of Flesch’s position is all the more puzzling given the cross-disciplinary consensus that narrative models the human environment. This premise

informs story grammar research (see references in Scalise Sugiyama, 2005), Oatley's (1999) argument that narrative is a mental simulation of experience and Oatley and Mar's (2005) argument that story characters are a variant of the mental models of others we make in conversation. It is the keystone of Humphrey's (1983:69) hypothesis regarding the fitness advantages of the "extension of inner experience," and the bedrock of Pinker's (1997:543) claim that stories provide "a mental catalogue of the fatal conundrums we might face someday and the outcomes of strategies we would deploy in them." It is the crux of Tooby and Cosmides' (2001) argument that participation in fictional worlds provides information critical to the development and calibration of mechanisms dedicated to navigating our environment, and Scalise Sugiyama's (2001a) hypothesis that narrative is a means of acquiring adaptively useful information without undertaking the costs and risks of firsthand experience. It is central to Storey's (1996) explication of mimesis, Carroll's (2004:116) argument that narrative fosters "our innate and socially adaptive capacity for entering mentally into the experiences of other people" and Gottschall's (2005) quantitative studies of patterns in world folklore content (Gottschall, Martin, Rea, & Quish, 2004).

Also puzzling is Flesch's claim that the information acquisition hypothesis "does not give an account of fiction itself, that is, of why something that cuts against the notion of narrative as imparting accurate information, should have arisen" (Flesch 2007, p. 9). Actually, several recent works address this apparent paradox. Both Storey (1996) and Scalise Sugiyama (2001a) argue that representations need not correspond to actual people or events to constitute an accurate model of human goals and the strategies used to attain them: a story in which a fictional man beats his fictional adulterous wife conveys valid information about human psychology. Scalise Sugiyama (2001a, 2000b) further shows that stories about fictional beings or events may nevertheless contain reliable topographical, navigational, technological, botanical or zoological information. Tooby and Cosmides (2001) delineate the cognitive mechanics of fiction: humans regularly process contingently true information (information that is only true temporarily, locally or under certain conditions), and this information is marked by scope tags that delineate the boundaries within which it is valid (see also Cosmides & Tooby, 2000a). They see fiction as a "limiting case, in which the real-world scope wherein the bundled set of representations reign as true has shrunk to nothing" (2001:20). Scalise Sugiyama (2001a,b, 2003) approaches contingently true information from a different angle: she shows that, besides communicating universally applicable information, narrative communicates local knowledge — information that is valid in one place, period or polity but not necessarily in others.

There is no question that narrative engages social cognition mechanisms (Scalise Sugiyama 2005), but arguing that all stories are about the cheating of innocents and the punishment of cheaters reduces all conflicts represented in narrative to problems of free riding. Narrative does not only or even necessarily model defection: its success as an information transmission and storage device is due in large part to its ability to model human experience in all its variety. Our emotional engagement in these models

is triggered, in part, by the adaptively relevant environmental cues they simulate: in any given story, which emotion program(s) is/ are engaged depends on the situation(s) being modeled. Over the last two decades, a cross-disciplinary body of research (much of it cited herein) has been steadily illuminating both the cognitive components and potential fitness benefits of storytelling. It is to this body of work that I would direct readers who are curious about how an interest in fiction could have evolved.

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