

authors, that of playground exchanges of toys, confirms a desire of desire interpretation much more convincingly than it does a “trading instinct” hypothesis of a drug-like nature, as it is the simple fact that another child holds an object that makes it desirable for a second one.

As for the Darwinian fitness advantage that money confers, subjects who are admired extend the range of their potential partners, gaining access in particular to those who are themselves objects of admiration. The overall benefit of admiration is fitness or reproductive advantage. Cash is a universal tool to this aim. In other words, the psychological function of money turns out to be precisely what the popular press assumes it to be.

Operant contingencies and “near-money”

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Abstract: We make two major comments. First, negative reinforcement contingencies may generate some apparent “drug-like” aspects of money motivation, and the operant account, properly construed, is both a tool and drug theory. Second, according to Lea & Webley (L&W), one might expect that “near-money,” such as frequent-flyer miles, should have a stronger drug and a weaker tool aspect than regular money. Available evidence agrees with this prediction.

Lea & Webley (L&W) describe an interesting and provocative framework for the analysis of money-related behaviour. Their goal is to provide a biological account of money motivation, and they claim that, if their attempt fails, the alternative would be a purely cultural explanation. But they overlook the role of conditioning and learning processes that operate within an individual’s lifetime. An operant theory of money, properly construed, may be difficult to distinguish from L&W’s drug/tool theory, although money-related behaviour is so varied and complex that all three levels – biological, individual learning, and cultural – are probably necessary for a full understanding.

In their discussion of the operant theory, L&W do not mention the role of negative reinforcement or avoidance contingencies. It is well known that avoidance responding is highly resistant to extinction; dogs that learn to jump over a hurdle in a shuttlebox to avoid an electric shock continue to respond vigorously long after the shocks have been discontinued (Solomon et al. 1953). Neo-liberal economic reforms that create “incentives” to work by reducing social welfare expenditure can be viewed, at least in part, as massive avoidance contingencies. Thus, it is possible that some apparent “drug-like” effects of money, such as workaholic, reflect the resistance to extinction of responding maintained by negative reinforcement. Although the aversive event – joblessness, poverty – may never be experienced, the workaholic individual, like the unfortunate dogs in Solomon et al.’s experiment, lives in fear of an unhappy future.

According to L&W, traditional operant theory, based on the idea that money functions as a conditioned reinforcer, is a “pure Drug Theory” (target article, sect. 3.2.2). But it has long been recognized that stimuli that function as conditioned reinforcers have discriminative as well as reinforcing (i.e., hedonic) properties (Rachlin 1976). For example, a keylight that signals transition from a lower- to a higher-valued situation in terms of reward rate comes to act as a conditioned reinforcer for pigeons (i.e., discriminative function; Baum 1974a). And recent research has found that single dopamine neurons show a spike in activation following the onset of a stimulus that predicts subsequent reward that is similar to the spike following the reward itself. This phenomenon provides neurophysiological support for the traditional view, dating back at least to Pavlov (1927), that conditioned stimuli have hedonic value (Fiorillo et al. 2003; see Schultz [2004] for

review). Therefore, the operant account is not easily categorized as either a tool or drug theory, because it combines aspects of both. Moreover, because the tool/drug distinction is closely analogous to that between the discriminative and hedonic properties of conditioned reinforcers, ultimately it may be difficult to distinguish L&W’s account from the operant theory.

Nevertheless, we outline one approach to testing L&W’s theory, and show that some existing data are consistent with it. We are not attempting to distinguish their account from the operant theory, but rather to test the idea that money has both tool and drug properties.

Money is understood to resemble a drug with “the idea of a drug as a deceiver” (sect. 2.2.4). The implication is that, insofar as money operates as a drug rather than a tool for a particular individual or in a particular situation, it will be overvalued, in the same way that, for example, the taste of saccharin promises a food value that it does not actually have (sects. 2.2.2, 5.2). Misers can be thought to fall victim to this deception (sect. 4.10); however, as a general test of the theory, misers are unsatisfactory since their behaviour is counterbalanced by that of spend-thrifts, who, in the eyes of most of us, do not attach sufficient value to money. Is there any phenomenon that suggests that the average person might generally overvalue money?

One approach is to examine the way that people value “near-money” (the phrase is from Lea et al. 1987, p. 328). Near-money, like primitive money, is a currency that can be used to buy a limited variety of services. One prominent example of near-money in Western societies is frequent-flyer miles. Frequent-flyer miles have many of the attributes of money and, indeed, airlines often set up “accounts” for their customers. We suggest that, in terms of L&W’s theory, frequent flyer schemes are set up so as to retain as much as possible of the drug nature of money, while having rather little (although still some) of its tool nature. Given this assumption, we would expect to find even more overvaluation of a near-money such as frequent-flyer miles than of regular money. Or, alternatively, because of this greater drug component, near-money should be overvalued relative to regular money.

This possibility has not been rigorously researched, but two recent studies have produced results suggesting it might be true. Liston-Heyes (2002) found that respondents in the United Kingdom were willing to pay more for 100 air miles (about 23 pound sterling) than the air miles were apparently worth (around 7 to 12 pound sterling). Kemp (2005) found New Zealand respondents were willing to pay a median NZ \$50 for 1,000 Air New Zealand frequent-flyer points. Estimates of the real cost of these were NZ \$12.50 (based on cheap ticket cost) and NZ \$3.61 (Air New Zealand company estimate of the marginal cost). Moreover, members of frequent-flyer programs were willing to pay more than non-members (median = \$20), as might be predicted from the drug theory.

Thus, at least one independent test of L&W’s tool/drug theory seems to support it.

Show me the status: Money as a kind of currency

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Abstract: Currencies that are recognized as money cannot be easily distinguished from alternative currencies such as status. Numerous examples demonstrate the need for status to be recognized as a motivator alongside, at least, money. Lea & Webley (L&W) acknowledge the roles of status; however, a closer focus is warranted.