Counterfeit vs. Authentic:
The Impact of Situational Factors on the Ability of Consumers to Differentiate

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Introduction

From public service campaigns that appeal to the consumer's sense of morality to threatening consumers with legal repercussions, policy makers have attempted to reduce the demand for counterfeit goods in the hope that the supply of counterfeit goods will follow (Miyazaki, Rodriguez, and Langenderfer 2009). However, the key assumption behind any method which attempts to reduce demand for counterfeit goods is that consumers are able to distinguish counterfeit goods from legitimate ones. The reality is that consumers often purchase counterfeit goods believing that they are purchasing legitimate versions of the product. In many product categories such as pharmaceuticals or automobile parts, counterfeiters work very hard to portray their products as legitimate (Grossman and Shapiro 1988a). The rationale for counterfeiters is that certain goods are perceived to have high risks and if consumers could distinguish between counterfeit and legitimate versions of the product they would not purchase the counterfeit product (Majid and Johansson 2010).

Public Policy Concerns

Counterfeit goods threaten not only the viability of legitimate businesses but they also pose a significant danger to consumers. The Organization for Economic Cooperation and Development (2007) estimates that the global counterfeiting market is worth over $200 billion annually, but this does not take into consideration intangibles such as the harm inflicted on consumers by counterfeit goods.

Additional Concerns with Counterfeit Drugs:

"Counterfeit medicines pose a public health risk because their content can be dangerous or they can lack active ingredients. Their use can result in treatment failure (and to increased resistance)or even death." (WHO)
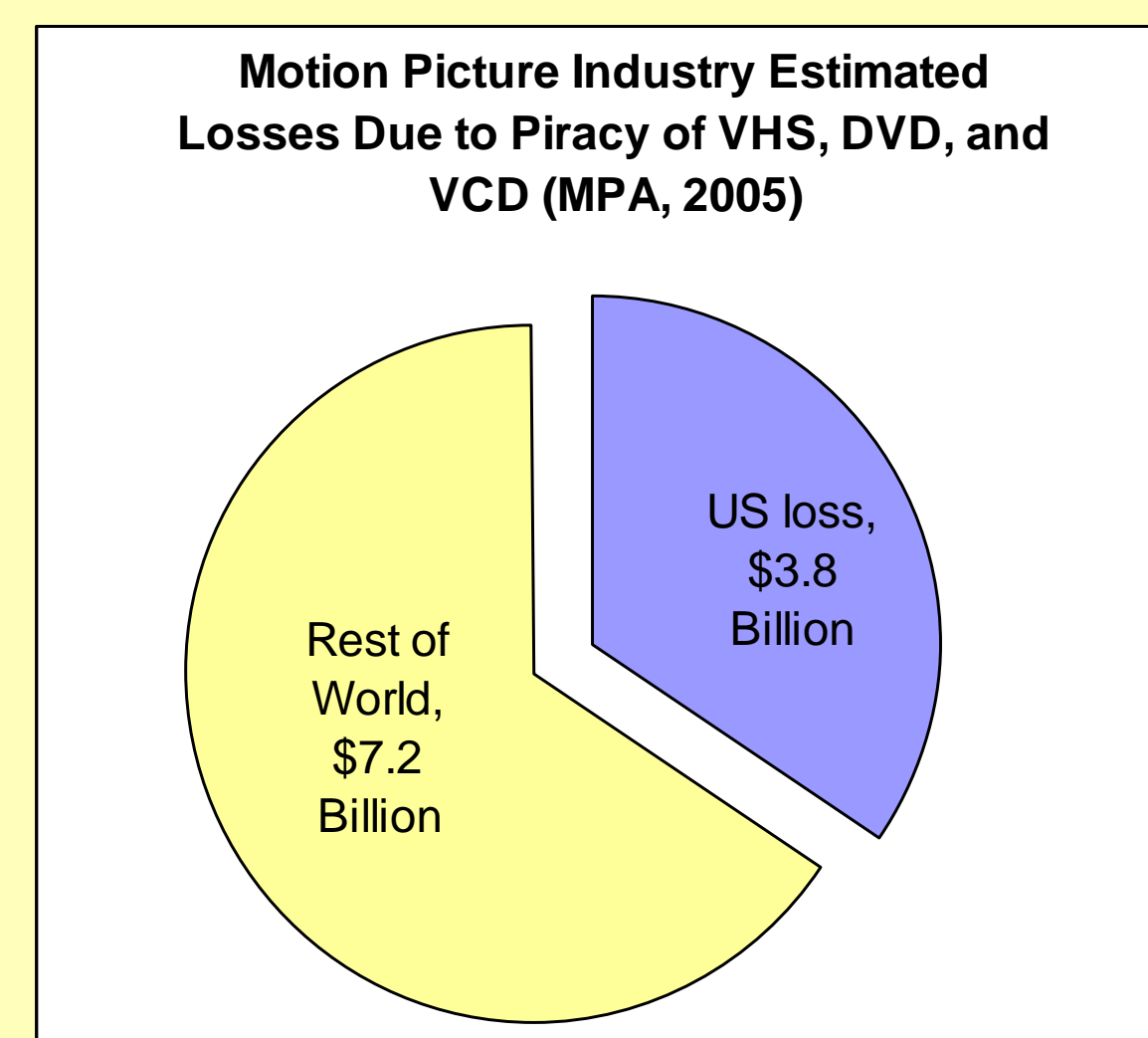
Example of real and counterfeit Lipitor ® that shows the difficulty In distinguishing the two (the real drug is the one on the right).

An estimated 600,000 people in the United Statesmay have received the counterfeit Lipitor ® version shown above. (Pfizer Inc.)(CITE?)

Threat Towards Intellectual Property Rights Prrotection:

The concerns associated with counterfeit media (such as DVDs) are not from a consumer safety perspective, but the growth in counterfeiting threatens the protection of intellectual property that is vital towards economic growth   The 2005 estimates shown below illustrate the Motion Picture Association's extensive due to piracy of hard goods alone (excluding digital media).

Motion Picture Industry Estimated Losses Due to Piracy of VHS, DVD, and VCD (MPA, 2005)

US loss, $3.8 Billion
Rest of World, $7.2 Billion

Source: MPA 2005

Research Question and Propositions?

Research Question: What is the impact of common situational variables on the ability of consumers to differentiate counterfeit products from legitimate products?

Propositions
P1: A higher (lower) price associated with a good will result in a lower (higher) perceived probability of the good being counterfeit.

P2: The level of risk associated with a good can impact the perceived probability that the good is counterfeit.

P3: Peripheral social cues are used to evaluate the perceived probabilities that a good is counterfeit.

Study 1

The first study was a two factor (Type of Product: Drug vs. DVD) between participants and two factor (Price of Good: $6 vs. $15) within-subject design. The type of good was manipulated in order to test perceived probabilities of a good being counterfeit across goods with varying levels of perceived risk. The prices of the products were manipulated to represent market conditions where price is generally the most visible clue as to the authenticity of the product.

Once the manipulations were pre-tested a total of sixty participants from a large Atlantic University were randomly assigned to either the DVD condition or the Drug condition. Participants were told that they were traveling in South Asia and that they decided to purchase some DVDs (or anti-malarials) from local shops. They were told that there were two different prices for the items and that one, both, or none of the products could be counterfeit. They were then asked to state the probability of each product being counterfeit at each of the two price points.

Results of Study 1

Study 1
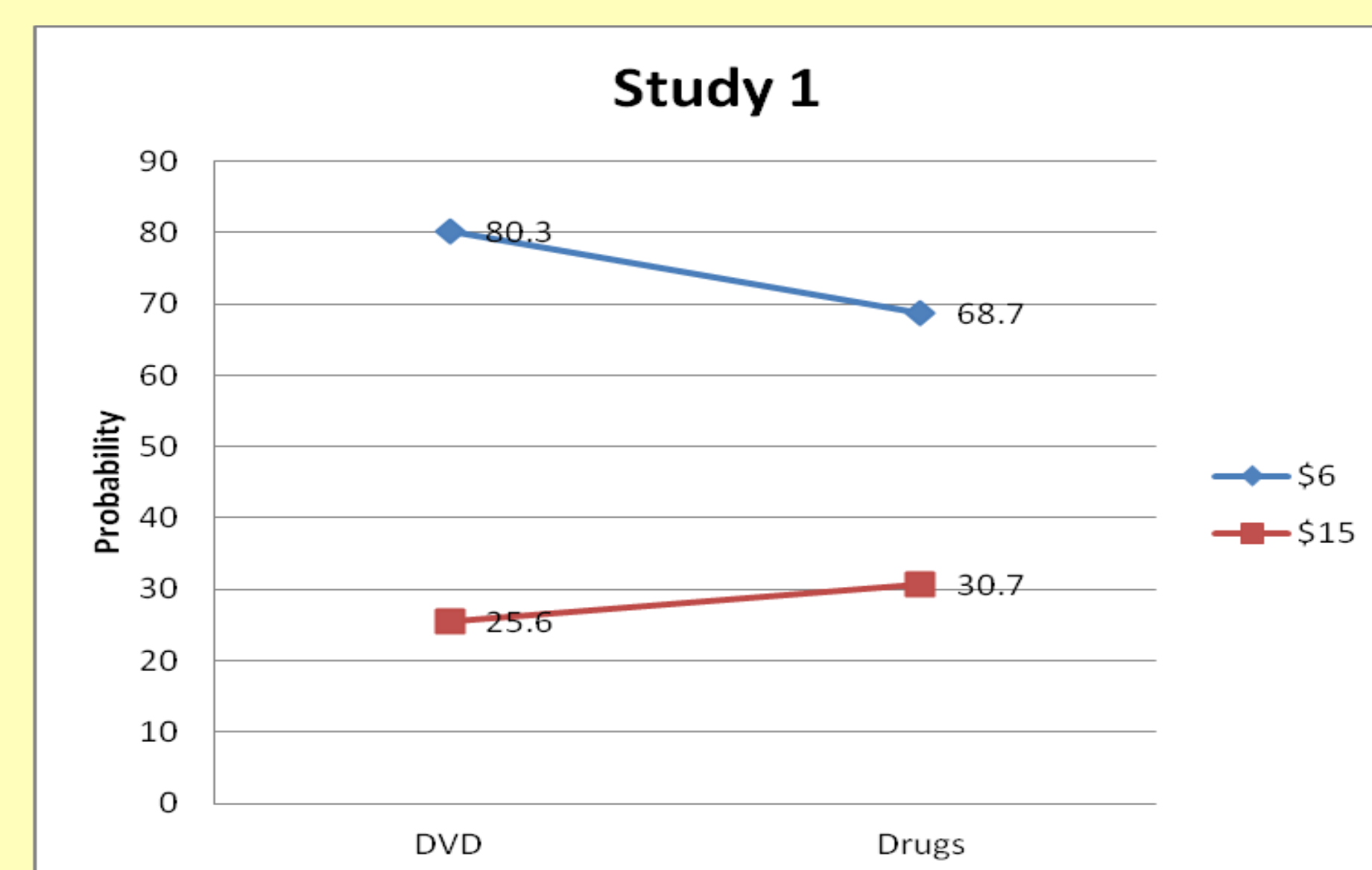
The results found a significant main effect for price across the two products (F(1, 96) = 111.57, p < 0.001) with participants consistently believing that the $6 products were more likely to be counterfeit than the $15 products (MDVD_$6 = 0.803 & MDrug_$6 = 0.687 vs. MDVD_$15 = 0.256 & MDrug_$15 = 0.307).   It is worth noting that the results also revealed a significant two way interaction effect within the type of good dyad (F (1, 57) = 4.361, p < 0.05) which seems to indicate a moderating role for the level risk in terms of perceived probabilities of a good being counterfeit.

Key Concepts

Informational Processing: If a person has the ability and interest in a message, the person will carefully evaluate the message. If the person is either unwilling or unable to evaluate the message, they will rely of peripheral cues to evaluate the message (Petty and Cacioppo 1986).

Risk: counterfeits vary in their degree of risk, consumers avoid those that are high in risk (Majid and Johansson 2010)

Social Variables: The usage of cues takes on an enhanced importance when risk is high (Alaszewski 2005) and consumers are fearful of making a poor decision.

Study 2

In Study 2 we manipulated the level of risk beyond simply the product categories. We manipulated risk by telling participants that the DVDs were a gift for their boss or someone they were trying to impress. It was felt that the purpose of the gift can increase the desire to make a good purchase (Joy 2001) and hence the level of risk of making a poor decision. In line with the work on elaboration and processing by Petty and Cacioppo (1986) when consumers are fearful of making a poor decision they will elaborate on the information in greater detail and be more critical of the information than if the outcome of their decision was of no consequence to them.

Results Study 2
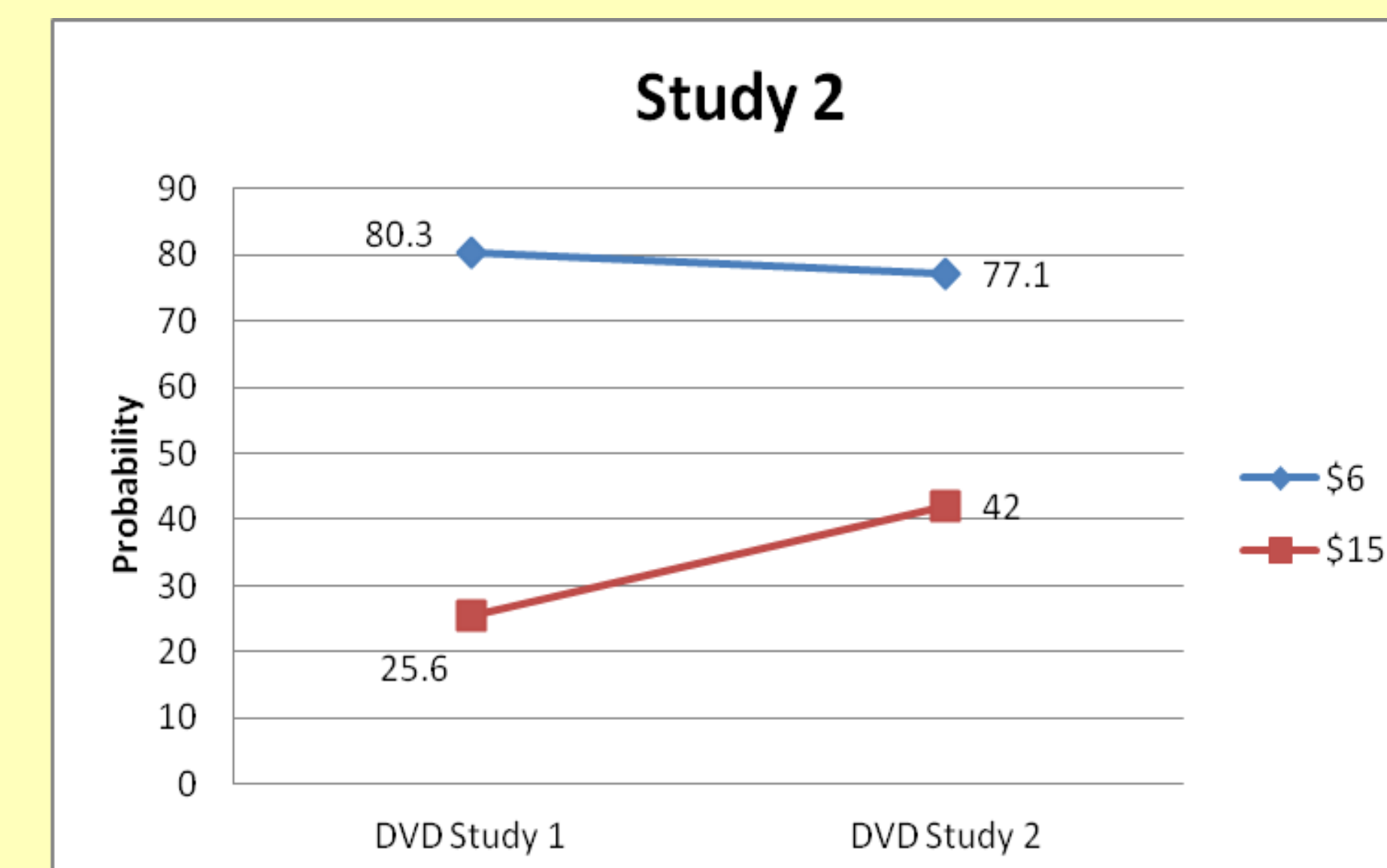
Study 2

We suspected that participants would consider both the $15 and the $6 DVD as more likely to be counterfeit than those DVDs that were purchased for oneself in Study 1. A manipulation check found that participants rated the purchase of counterfeit DVDs under the present scenario to have a much higher degree of perceived risk than under the original scenario used in Study 1 (F(1, 43) = 21.30, p < 0.001, MStudy1 = 1.98, SD = 1.05 vs. Mstudy2 = 3.956, SD = 1.31). The results revealed that when the level of risk was manipulated by the situational factor of buying a gift for one's boss, participants felt the DVD priced at $15 was significantly more likely to be counterfeit than earlier when the $15 DVD was being purchased for oneself in Study 1 (MDVD_Study1 = 0.256 vs. MDVD_Study2 = 0.422, F(1, 54) = 4.82, p < 0.05). This indicates as suspected that the level of risk participants perceive with the good can impact their assessment of its authenticity.

Future Research

This research was an exploratory first step towards providing insights as to how situational factors impact consumers' ability to distinguish counterfeit goods from authentic goods. There are many options to extend or expound on the studies above.

Aside from price and knowledge of others' purchasing a good, what other product and social cues do consumer's use to evaluate potentially counterfeit goods?

What is the shape of consumer's probability density function of purchase across the consumer's perceived probability of a counterfeit good.? How does this curve vary as the perceived risk to the consumer varies?

Study 3

Study 3 attempted to explore the impact that the knowledge of others pursuing the good may have on the perceived probabilities of a good being viewed as counterfeit. In study 3, a total of 24 participants underwent a similar procedure as those in Study 1, participants were asked to rate the likelihood a $6 version and a $15 version of an anti-malarial drug being counterfeit. The primary difference was that participants in Study 3 were told that they had viewed others purchasing the drug, though they were not told the outcome of those purchases. We felt that the knowledge of others purchasing a product would reassure consumers as to the authenticity of the product and reduce the probabilities of a good being perceived as counterfeit.

Results Study 3
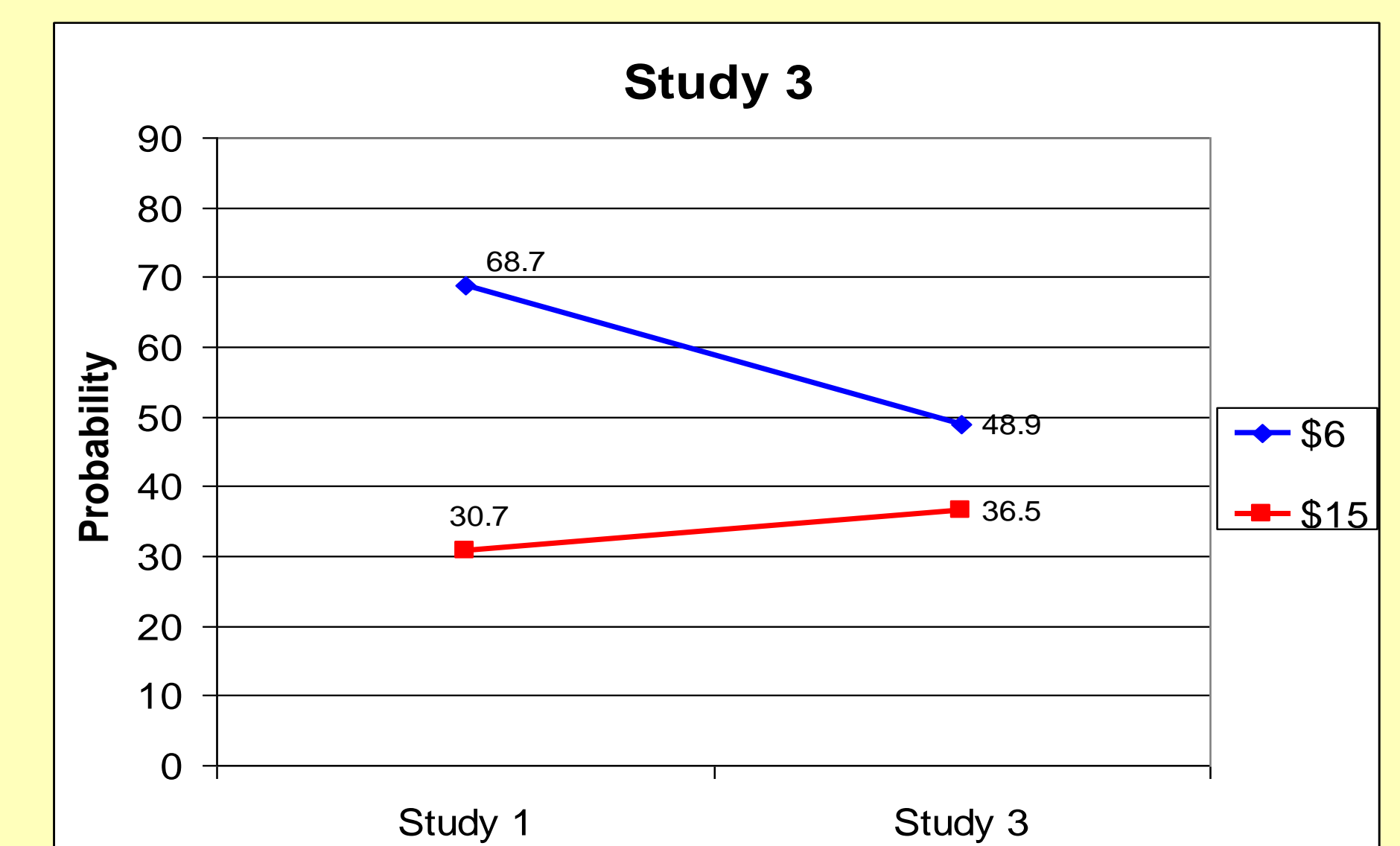
Study 3

The results partly support this view, participants felt that the $6 drug in Study 3 was significantly less likely to be counterfeit than the $6 drug in Study 1 (MDrug_Study1 = 0.687 vs. MDrug_Study3 = 0.4892, F(1, 50) = 7.80, p < 0.001). This finding is noteworthy because it demonstrates that viewing others purchasing a product can provide assurances that a potentially counterfeit product may be legitimate. In actuality though, the consumers and others who had purchased the less expensive drug may all be buying counterfeit products and have no way of communicating this until they consume the product.

Works Cited

Alaszewski, A. (2005). Risk communication: identifying the importance of social context. Health, Risk & Society, 7(2), 101-105.

Grossman, Gene M. and Carl Shapiro (1988), "Counterfeit-Product Trade," American Economic Review, 78 (03), 59.

Joy, Annamma (2001), "Gift Giving in Hong Kong and the Continuum of Social Ties," Journal of Consumer Research, 28 (09), 239-56.

Majid, Kashef A. and Johny K. Johansson. (2010), ' Counterfeit Inferences from Price Levels and Country of Origin: The Moderating Effect of Perceived Risk,"Paper presented to the American Marketing Association Winter Educators Conference, New Orleans, Louisiana (February 19 -22).

Miyazaki, A., Rodriguez, A., & Langenderfer, J. (2009). Price, Scarcity, and Consumer Willingness to Purchase Pirated Media Products. Journal of Public Policy & Marketing, 28(1), 71-84.

Motion Picture Association (2005), The Cost of Movie Piracy,

Organization for Economic Co-operation and Development (2007), The Economic Impact of Counterfeiting and Piracy, Paris, France: Secretary General of the OECD.

Petty, Richard E. and John T. Cacioppo (1986), "The elaboration likelihood model of persuasion," Advances in Experimental Social Psychology, 19 (1), 123 - 138.

PfizerInc."http://www.pfizer.com/products/counterfeit_and_importation/additional_resources.jsp" 3/17/2010

World Health Organization, http://www.who.int/mediacentre/factsheets/fs275/en/index.html, 3/17/2010