MOVIE PIRATES' "WHITE LIE": UNDERSTANDING DOWNLOADERS' COMPENSATION QUANDARY THROUGH COGNITIVE DISSONANCE THEORY

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BIOGRAPHICAL NOTES

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ABSTRACT

Three groups of movie downloaders have emerged based on their respective payment pattern: Downloaders who never pay, downloaders who always pay, and the eclectic downloaders who only pay at times. One distinctive characteristic for each group of movie downloaders is theoretically hypothesized and empirically confirmed: A more negative attitude towards innovation distinguishes the never paying downloaders, fewer years of Internet use history differentiate the always-paying downloaders, and a high number of online activities distinguishes the eclectic downloaders. These hypotheses are theoretically supported within the cognitive dissonance framework: Always-paying downloaders are consonant since they value creative works and accept to compensate the authors/owners, although the passing of time will affect their cognition/behavior harmony. Never-paying downloaders are dissonant and need to undervalue creativity and innovation (e.g., the sour grapes) to release the tension associated with their cognition/behavior discord. The changing payment behavior characterizing the eclectic downloaders is best understood through the so-called "chameleon effect", adapting their compensation pattern according to the outlet. The results confirmed all the hypotheses.

Key words: Digital piracy; cognitive dissonance; movie industry.

1. OBJECTIVE OF THE RESEARCH

The most common explanation for the smokers' persistent, self-damaging behavior relies on cognitive dissonance theory (e.g., Halpern, 1994; McMaster & Lee, 1991), which explains that smokers will generate favorable arguments about tobacco use in order to reduce the psychological tension resulting from the inconsistency of smoking while knowing about cigarettes' harmful effects.

This study proposes using that same theory to explain why unpaid downloading is still prevalent after numerous anti-piracy campaigns. According to cognitive dissonance theory, many downloaders would underestimate/counter-argue the importance of compensating authors when obtaining digital copies of their works to reduce the tension arising from this behavioral inconsistency (downloading and not paying).

Unlike streaming, downloading involves the ability to autonomously use, permanently retain, and indiscriminately share digital copies of creative works whose intellectual property rights do not belong to the downloaders. Acquisition of these important abilities is (not) reasonably justified when downloaders do (not) pay compensation to copyright owners. In practice there are (1) downloaders who, unjustifiably, never pay, (2) downloaders who, reasonably, always pay, and (3) eclectic downloaders who, inconsistently, only pay at times. The differences between these common groups can be understood with the help of several well-supported principles within the general framework of the cognitive dissonance theory.

2. HYPOTHESES

Originally proposed by Festinger (1957), the cognitive dissonance theory has become one of the most influential and widely documented theories in social psychology (Cooper, 2007). This theory's central proposition is that people experience an uncomfortable tension when perceiving that they simultaneously hold two dissonant cognitions (including any type of idea, belief, value, attitude, emotion, or behavior). This tension motivates people to work on reducing dissonance by modifying/reappraising the inconsistent cognitions or by acquiring/inventing new cognitions that increase cognitive consistency. For example, since the habit of smoking and the awareness of its potential harmful consequences are dissonant cognitions, smokers need to reduce tension by, among other options, smoking less cigarettes a day or willfully underestimating tobacco's harmful effects.

According to cognitive dissonance theory, movie downloaders who never pay are in a state of cognitive disequilibrium because they simultaneously exhibit two dissonant behaviors. The state of cognitive disequilibrium involves such an uncomfortable tension that users who keep downloading without paying need to underestimate/counter-argue the importance of compensating the owners of creative works. Consumers with a more negative attitude towards newness tend to undervalue new products' creativity (Hirschman, 1980). There is also evidence that the more negative the consumers' attitude towards newness, the less their willingness to pay for copyrighted works (Hsu & Shiue, 2008). Based on this rationale:
H1: Among movie downloaders, those who never pay differ from all others in terms of their comparatively more negative attitude towards newness.

Movie downloaders who always pay are in a state of cognitive equilibrium because downloading copyrighted creative works and monetarily compensating their owners are consonant actions. However, such equilibrium can break down with the passing of time as a result of the gradual assimilation of dissonant actions that are very common in the online environment. Assimilation-related evidence shows that when people engaged in consonant actions witness other people displaying dissonant actions, the former tend to become more tolerant of the latter's actions (Cooper & Hogg, 2007; Norton, Monin, Cooper, & Hogg, 2003). Internet use history (assessed in relation to the number of years using the Web) plays an important role in the equilibrium breakdown in two different ways. First, learning how to download without paying involves a significant period of time spent in acquiring the necessary downloading tools/skills. Second, the gradually acquired familiarity makes Internet users become more and more conscious of the degree to which downloading without paying is an accessible and widespread activity. Thus:
H2: Among movie downloaders, those who always pay differ from all others by having a shorter Internet use history.

Eclectic movie downloaders alternate between equilibrium and disequilibrium states because at times they congruously compensate the copyright owners and other times they incongruously do not. These changing responses to the same activity (downloading copyrighted movies) are fundamentally inconsistent and reveal the presence of a more or less conscious "doublethink," a notion introduced by George Orwell in his literary classic

Nineteen Eighty-Four (1949). El-Sawad, Arnold, and Cohen (2004) found support for the existence of doublethink and also concluded that "doublethinkers" are not necessarily conscious of the intrinsic contradiction in their ideas/actions. The changing behavior characterizing the eclectic downloaders may be understood through the so-called "chameleon effect." According to this effect, humans have an innate tendency to mimic the behavior of interaction partners, usually in an unconscious way (Chartrand & Bargh, 1999; Chartrand, Maddux, & Lakin, 2005; Lakin, Jefferis, Cheng, & Chartrand, 2003). The more the social environments in which an individual personally interacts, the greater the variety of mimicry the individual will perform when interacting with others (van Baaren, Horgan, Chartrand, & Dijkmans, 2004). In the case of movie downloaders, those who interact with a greater variety of Internet outlets (by participating in a greater breadth of online activities), are expected to change their payment patterns more easily to match the behavior found in each outlet. Hence:
H3: Among movie downloaders, those who only pay at times differ from all others by their participation in a greater breadth of online activities.

Regardless of the preceding hypotheses, we are also exploring the potential influence of other factors on movie downloaders' payment patterns. These additional factors are classified into four thematic areas: (1) Demographics: *sex, age, social class, size of municipality,* and *presence of children at home*; (2) psychographics: *confidence in using the Internet, sensitivity to price and quality,* and *level of cosmopolitanism*; (3) variables related to Internet use: *home Internet usage time, social network participation,* and *home bandwidth capacity*; and (4) variables related to movie interest: *fondness for movies, genre preferences,* and *consumption habits*.

3. METHODOLOGY

3.1. Data
Data were obtained from the *2010 AIMC Marcas*, a secondary information source widely used in the Spanish advertising industry. This annual study contained questions relating to consumption habits, leisure activities, mass-media preferences, attitudes, etc. The company *Taylor Nelson Sofres* (*TNS*) dealt with the survey development, while the *Asociación para la Investigación de Medios de Comunicación* (*AIMC* or Association for Media Research) provided the survey guidelines and controlled the whole process. The target population included individuals aged 14 or older living in households in Spain. The sample was distributed proportionally by region, municipality, sex, age, social class, family role, and household size. The final sample consisted of 10,409 valid subjects.

3.2. Variable description
In relation to the demographics, *sex* was coded as 1 for males and 2 for females; *social class* (defined according to educational and professional levels of the household's main income earner) was measured through a five-category ordinal scale (1 = Lower, 2 = Lower-middle, 3 = Middle-middle, 4 = Upper-middle, and 5 = Upper); *size of municipality* was coded into seven ordinal categories (1 = Below 2,000 inhabitants, 2 = From 2,000 to 5,000, 3 = From 5,000 to 10,000, 4 = From 10,000 to 50,000, 5 = From 50,000 to 200,000, 6 = From 200,000 to 500,000, and 7 = Above 500,000); and *presence of children at home* was coded 1 if someone aged under 14 years lived at home and 0 otherwise.

Each one of the psychographics (*attitude towards newness*, *confidence in using the Internet*, *price/quality sensitivity*, and *level of cosmopolitanism*) was constructed by averaging the responses to six survey items (please see Appendix). These items were measured using a five-point Likert scale (1 = Completely disagree, 2 = Tend to disagree, 3 = Neutral, 4 = Tend to agree, and 5 = Completely agree). Reliability or internal consistency of these multi-item scales was assessed using Cronbach's alpha, which equaled .657 for *attitude towards newness*, .727 for *confidence in using the Internet*, .771 for *price sensitivity*, .692 for *quality sensitivity*, and .756 for *level of cosmopolitanism*.

Consistent with previous studies (e.g., Leung, 2010; Sum, Mathews, Pourghasem, & Hughes, 2008), *Internet use history* was defined as the number of years using the Internet and was applied on a four-point scale (1 = Less than 1 year, 2 = From 1 to 2 years, 3 = From 2 to 4 years, and 4 = More than 4 years). Also consistent with earlier articles (e.g., Hinduja, 2003; Jung, Qiu, & Kim, 2001), *breadth of online activities* was calculated by counting how many of the ten suggested activities the respondent participated in – namely, buying over the Internet, playing/betting on lottery, poker, or other games, participating in online auctions, creating blogs, creating/updating a personal website, uploading videos (e.g., on YouTube), uploading photos, downloading podcasts, making voice calls over the Internet, and participating in the virtual world. *Home Internet usage time* was measured on a five-

point scale (0 = Never, 1 = Less than 3 times a week, 2 = From 3 to 6 times a week, 3 = Once a day, and 4 = More than once a day). *Social network participation* was measured by the number of social networks the respondent participated in. *Home bandwidth capacity* was coded into six ordinal categories (0 = None, 1 = Less than 2 MB, 2 = 2 MB, 3 = 4 MB, 4 = 8 MB, and 5 = More than 8 MB).

Concerning factors related to film interests, *movie theatre visit frequency* was coded according to an eight-point scale (0 = Never, 1 = Less than twice a year, 2 = 2-3 times a year, 3 = 4-6 times a year, 4 = Once a month, 5 = 2-3 times a month, 6 = Once a week, and 7 = 2 or more times a week); *preference for viewing movies in theatre*, *movie selection based on cast/director*, and *movie selection based on critical reviews* were measured on a five-point Likert scale (1 = Completely disagree, 2 = Tend to disagree, 3 = Neutral, 4 = Tend to agree, and 5 = Completely agree); *reading of movie-related magazines* was coded 1 if the subject read any of these publications and 0 otherwise; and *interest in each movie genre* was measured on a four-category ordinal scale (0 = Not at all interested, 1 = A little interested, 2 = Fairly interested, and 3 = Very interested).

3.3. Statistical analysis

The statistical analysis consisted of two stages. First, we conducted one-way ANOVAs comparing the three groups of downloaders for all the potentially discriminating factors in order to identify the non-significant factors and filter them out for subsequent analysis (Table 1). Second, from the significantly discriminating factors, we built a multinomial logistic regression model to identify the combination of such factors that best explain the differences among the groups movie of downloaders (Table 2). All calculations were performed with *PASW Statistics 18*, and the significance threshold was set at $p < .05$.

The groups of movie downloaders significantly varied in attitude towards newness, confidence in using the Internet, price sensitivity, quality sensitivity, Internet use history, breadth of online activities, and movie selection based on cast/director (Table 1). At this stage, it is already relevant that psychographics and factors related to Internet use have a much higher discriminating power than do demographics and factors related to movie interests.

Multinomial logistic regression is a technique similar to multiple regression but appropriate for categorical dependent variables. Since there are three categories in our dependent variables (movie downloading groups), the multinomial logistic regression compares the three categories through a combination of two binary logistic regressions (always-paying vs. never-paying downloaders and eclectic vs. never-paying downloaders). Coefficients of each binary logistic regression are straightforward, robust, and easy to interpret: (1) A positive (negative) sign of the *B* coefficient indicates that the corresponding group scores higher (lower) in the predictor than the reference group, which is the one that does not appear in results; and (2) the *Wald* statistic is used to assess whether or not the predictor is statistically significant in differentiating between the corresponding group and the reference group. Another very convenient feature of the logistic regression is its lack of strict assumptions, such as multivariate normality and equal variance-covariance matrices across groups (Hair, Black, Babin, & Anderson, 2010).

TABLE 1: Differences in Movie Downloading Habits across Individual Characteristics

	Average per group				
	ALWAYS PAY (*N*=118)	ECLEC- TICS (*N*=235)	NEVER PAY (*N*=1,554)	F	Sig.
Demographics					
Sex	1.39	1.43	1.41	.275	.760
Age	35.56	35.70	35.49	.027	.973
Social class	3.15	3.17	3.23	.800	.449
Size of municipality	4.52	4.80	4.79	1.685	.186
Presence of children at home	.25	.34	.31	1.364	.256
Psychographics					
Attitude towards newness	3.11	3.22	3.03	11.015	.000
Confidence in using the Internet	2.91	3.12	3.08	4.320	.013
Price sensitivity	3.26	3.42	3.40	3.118	.044
Quality sensitivity	3.50	3.56	3.42	6.088	.002
Level of cosmopolitanism	2.96	3.06	3.06	1.323	.267
Factors related to Internet use					
Internet use history	3.30	3.53	3.60	6.574	.001
Breadth of online activities	1.44	2.31	1.74	13.723	.000
Home Internet usage time	3.12	3.21	3.17	.260	.771
Social network participation	1.31	1.57	1.40	2.336	.097
Home bandwidth capacity	2.79	2.88	2.84	.122	.886
Factors related to movie interests					
Movie theatre visit frequency	2.53	2.69	2.54	.982	.375
Preference for viewing movies in theatre	3.92	3.80	3.82	.529	.589
Movie selection based on cast/director	2.75	2.89	2.70	3.466	.031
Movie selection based on critical reviews	2.76	2.90	2.73	2.760	.064
Reading of movie-related magazines	.12	.18	.14	1.844	.158
Interest in comedy movies	1.87	2.02	1.96	1.359	.257
Interest in drama movies	1.43	1.50	1.41	1.118	.327
Interest in action movies	1.97	2.09	1.95	2.661	.070
Interest in romantic movies	1.44	1.48	1.40	.768	.464
Interest in children movies	1.07	1.24	1.13	2.211	.110
Interest in suspense movies	1.95	2.16	2.13	2.659	.070

Through a forward stepwise selection procedure, we built a multinomial logistic regression for movie downloading groups (Table 2) by choosing the predictors from the candidate factors – that is, those found to be significantly differentiating in the one-way ANOVAs (Table 1). At each step, the candidate factor with the highest score statistic was selected to enter the model, whose improvement was measured through the chi-square test for the change in the log likelihood value (comparable to the overall *F*-test in multiple regression). The stepwise procedure stopped when none of the remaining variables reached the significance threshold for entry.

TABLE 2: MULTINOMIAL LOGISTIC REGRESSION FOR MOVIE DOWNLOADING GROUPS

Step Summary						
Model	Effects	-2 Log Likelihood	Chi-square		df	Sig.
0	Intercept	2224.394				
1	Breadth of online activities	2199.946	24.447		2	.000
2	Attitude towards newness	2183.303	16.643		2	.000
3	Internet use history	2174.792	8.511		2	.014
4	Price sensitivity	2166.545	8.247		2	.016
Parameter Estimates						
		B	Std. Error	Wald	Df	Sig.
ALWAYS PAY	Intercept	-1.363	.730	3.484	1	.062
	Attitude towards newness	.443	.185	5.755	1	.016
	Price sensitivity	-.442	.162	7.443	1	.006
	Breadth of online activities	-.101	.066	2.359	1	.125
	Internet use history	-.273	.094	8.470	1	.004
ECLECTICS	Intercept	-3.000	.562	28.521	1	.000
	Attitude towards newness	.538	.135	15.848	1	.000
	Price sensitivity	-.141	.119	1.403	1	.236
	Breadth of online activities	.141	.036	15.617	1	.000
	Internet use history	-.101	.079	1.652	1	.199

The movie multinomial logistic regression model (Table 2) consisted of a combination of four factors: Breadth of online activities, attitude towards newness, Internet use history, and price sensitivity. In attitude towards newness, both always-paying downloaders and eclectics scored significantly higher than never-paying downloaders, as predicted by H1. In Internet use history, always-paying downloaders scored significantly lower than never-paying downloaders who, in turn, were not any different from eclectics, thus confirming H2. In breadth of online activities, eclectics scored significantly higher than never-paying downloaders who, in turn, did not differ from always-paying downloaders, which confirms H3. In price sensitivity, always-paying downloaders scored significantly lower than never-paying downloaders who, in turn, did not diverge from eclectics, meaning that being less price sensitive is a distinctive characteristic of always-paying downloaders.

4. DISCUSSION

4.1. Conclusions

Two methodological features have strengthened the ability to extract general conclusions. First, the demographic composition of the sample is representative of all strata of society, hence involving a far superior degree of generalizability versus a sample consisting of students only. Second, instead of asking the interviewees if they "pirated" or "illegally downloaded" movies, they were asked if they downloaded movies and paid for their downloads. Not being designated as "pirates" or "illegals" in the questionnaire encouraged non-paying downloaders to feel more at ease in recognizing their actual online behavior. It must be remembered that respondents report their socially undesirable behavior more spontaneously when asked in a less assertive way (Cannell, Oksenberg, & Converse, 1977; Mooney & Gramling, 1991).

We can conclude that each type of movie downloader possesses distinctive characteristics that so far has not received much attention: (1) The downloaders who never pay differentiate themselves from the other downloaders by having a more negative attitude towards newness; (2) the downloaders who always pay differentiate themselves from the rest by having spent fewer years using the Internet and being less price sensitive; and (3) the eclectic downloaders differentiate themselves from the rest through their tendency to operate in a wider variety of Internet outlets.

The main demographics (sex, age, social class, size of municipality, and presence of children at home) and the movie-related factors (interest levels, genre preferences, and consumption habits) are particularly irrelevant at uncovering differences among groups of movie downloaders. The same is true of some psychographics (confidence in using the Internet, sensitivity to quality, and level of cosmopolitanism) as well as some factors related to Internet use (home Internet usage time, social network participation, and home bandwidth capacity).

4.2. Managerial implications

Differences found among various groups of downloaders can help the entertainment industry by more effectively guiding their decisions to prevent (take advantage of) threats (opportunities) in the market.

The distinctive feature of the never-paying downloaders (more negative attitude towards newness) can help focus campaigns towards this large and unresponsive group. Such campaigns ought to avoid insisting that one should not "pirate" or "illegally download" Internet content because the receivers, being well aware of their inconsistent behavior, simply alleviate the tension by undervaluing the due compensation of creators for their original works. Instead, campaigns directed to never-paying downloaders could be more effective if they attack the very root of the problem by using positive messages to celebrate the value of artistic creativity.

That always-paying downloaders are distinguished by their having fewer years of experience on the Internet has two important practical implications. First, the entertainment industry should assume that over time, as they gain enough experience, many of these downloaders will stop paying. Second, to lessen this inevitable trend, the entertainment industry should tailor its messages aimed at this group of downloaders. Campaigns should praise consistent exemplary behavior and promote paying as a deliberate option and not as a mere consequence of ignoring how to download for free.

The fact that eclectic movie downloaders differentiate themselves by participating in more online activities can be used to persuade them to correct their contradictory behavior. The eclectic downloaders operate in diverse Internet settings and, as they replicate various payment practices from different environments, they may feel less dissonant than downloaders who never pay. To avoid this problem, campaigns aimed at the eclectic downloaders should help them realize that (1) they apply a double standard when they sometimes pay and at other times freeload, and that (2) the obligation to compensate the creators does not depend on the circumstances such as the payment pattern of an environment or an opportunity to download for free. Making people aware that they are acting hypocritically has been effective in changing their inconsistent behaviors to socially desirable ones, such as safe driving (Fointiat, 2004) and recycling (Fried & Aronson, 1995).

4.3. Theoretical implications

Various theoretical frameworks have been used to explain digital piracy, such as the theory of planned behavior (Cronan & Al-Rafee, 2008; Wang & McClung, 2012; Yoon, 2011), the social cognitive theory (Jacobs, Heuvelman, Tan, & Peters, 2012; LaRose & Eastin, 2004; LaRose & Kim, 2007), the theory of reasoned action (Nandedkar & Midha, 2012; Woolley & Eining, 2006), and the general crime theory (Malin & Fowers, 2009). To our knowledge, this study is the first to use the theory of cognitive dissonance to better understand movie downloaders' payment patterns. Using the theory of cognitive dissonance as a theoretical framework offers three important advantages. First, cognitive dissonance is one of the best documented theories in social psychology, both in terms of quantity and variety of practical applications (Cooper, 2007). Second, the theory of cognitive dissonance serves as a broad and flexible theoretical framework that can harmoniously incorporate various principles to better explain specific aspects of movie downloaders' behavior. Third, the cognitive dissonance theory and other theoretical foundations have allowed us to hypothesize about some differences among downloaders who never pay, downloaders who always pay, and eclectic downloaders – differences that were confirmed by the results.

Another significant contribution from this study is the identification of four factors (attitude towards newness, Internet use history, price sensitivity, and breadth of online activities) that differentiate the three types of movie downloaders. These factors' significant impact (theoretically well-grounded and empirically confirmed) implies that they should be paid closer attention in the future than they have so far. Conversely, the lack of significance of other factors frequently addressed in the past (especially the demographics) casts doubt on the need to keep paying these factors so much attention in the future.

4.4. Future avenues of research

A possible avenue is to examine to what extent these findings can be extrapolated to other areas. As both the arousal and reduction of cognitive dissonance can vary from one culture to another (Heine & Lehman, 1997; Hoshino-Browne *et al.*, 2005), future studies should also examine cultural differences to understand this phenomenon from a broader perspective. It would also be interesting to extend the scope of this study to other downloadable materials, especially music, software and games. This extension is likely to reinforce our conclusion that downloader behavior hardly varies among product categories since all the categories are usually available on the most widely-used downloading sites.

Another avenue is to research the same phenomenon over time. A longitudinal study would help (1) distinguish whether each factor' influence is episodic or continuous (for example, by discovering whether the influence of price sensitivity is restricted to periods of economic crisis), and (2) identify how downloaders evolve over time (for example, by observing whether those who cease to always pay progress to the eclectics' group or to the group that never pays).

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6. APPENDIX: ITEMS FORMING THE PSYCHOGRAPHIC VARIABLES

Attitude towards newness
I aspire to a life filled with challenges, novelties, and changes.
I like trying new products.
I love buying new gadgets and appliances.
I like to change and try new food products and brands.
I am always looking for new ideas to improve my home.
When I see a new brand I usually buy it to see how it works.

Confidence in using the Internet
Buying and paying over the Internet is safe.
I would use the Internet to meet people.
Internet advertising allows one to get more product information.
Internet is the first place to look when I need information.
I usually check the Internet before making a purchase.
I would not mind buying fresh foods (yogurt, butter, etc.) over the Internet.

Price sensitivity
I usually buy the cheapest food available.
I usually take advantage of offers and promotions on grocery products.
I like to be informed of promotions, discounts, and deals through advertising.
I always look for the lowest prices when shopping.
I take advantage from discount coupons.
I always look for special offers.

Quality sensitivity
I do not mind paying more for quality food products.
It is worth paying a little more for a good beer.
I am willing to pay more for a good wine.
I like owning high-quality products.
It is worth paying a little more for high quality items.
I prefer a few but good articles to many cheap ones.

Level of cosmopolitanism
I am interested in international events.
I like the idea of traveling abroad.
I am interested in other cultures and countries.
I like to eat foreign food.
With food, I like to try foreign specialties.
I would rather go on vacation to another country rather than stay in Spain.