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Social Psychology

Understanding Individual Attitude to Money: A Systematic Scoping Review and Research Agenda

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In the last decades, several disciplines have started to investigate the heterogeneous meanings attributed to money, contributing to defying the classic vision of money as a purely neutral object through an interdisciplinary perspective. Notably, the construct of money attitude, defined as a mirror of perceptions, beliefs, and feelings about money, has captured attention. Considering the richness and fragmentation of previous literature around the construct, a systematic scoping review was conducted to (1) inquire into how money attitude was measured from a methodological perspective and (2) map its connections with key correlates, such as demographics, macro-economic factors, personality, financial practices, and job-related variables. Through a systematic search in four databases, 226 articles were selected, including studies from both economic and social sciences. From a methodological perspective, several validated scales exist, which only partially overlap, outlining the heterogeneity of the construct of money attitude. Furthermore, the relationship between money attitudes and key correlates emerges as complex and occasionally blurred. Based on these results, an integrative framework is proposed and directions for future research are outlined, discussing methodological specificities of validated scales and alternative methodologies. Additionally, overlooked topics deserving further examination are highlighted, including the investigation of emotional underpinnings of money, antecedents of money attitudes and their relationship with unsound behaviors. Implications for practitioners are also discussed, from the need to recognize the role of money attitude in the client–financial advisor relationship to the importance of consumers' segmentation.

1. Introduction

> "Money is probably the most emotionally meaningful object in contemporary life; only food and sex are its close competitors as common carriers of such strong and diverse feelings, significances, and strivings." (Krueger, 1986, p. 3)

Economic theory has mostly treated money from a neutral perspective, as a means of exchange, a reserve of value or merely a unit of account. However, money is not, and never has been, a neutral thing. Instead, people imbue it with meanings, emotions and beliefs that go beyond the simple use of money in instrumental terms. The exploration of symbolic meanings and emotions associated with money has been long neglected in economic psychology research. Besides psychoanalysis (e.g., Freud, 1908), the first articles that systematically addressed the topic were published in the 70s and 80s (e.g., Furnham, 1984; Wernimont & Fitzpatrick, 1972; Yamauchi & Templer, 1982); however, it is from the 90s that the concept of "money attitude" began to gain increasing attention within the academic world (Furnham & Argyle, 1998; Hermalin & Isen, 2000; Mitchell & Mickel, 1999). Indeed, the construct of money attitudes has been at the center of the attention of many disciplines, including economics, finance, sociology, and psychology, establishing therefore its trans-disciplinary nature. Attitudes towards money are a function of one's perceptions, beliefs, and feelings about money and of behavioral tendencies in matters related to money. Scholars agree on its multi-dimensional nature, identifying three key areas in its affective, cognitive, and behavioral dimensions. Indeed, money emerges as a vehicle of both internal aspects (negative and positive emotions) and external forms of evaluation with others (Furtner, 2020; Langley et al., 2019; Lea &

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Webley, 2006). Moreover, money has a highly charged symbolic meaning, since people attribute to it features beyond its function as a tool of economic exchange (Gasiorowska, 2014; Luna-Arocas & Tang, 2004). In the cognitive dimension, money attitude is an expression of beliefs and opinions that individuals hold about money. Last, the behavioral dimension mirrors a pragmatic attitude to money, which at least partially includes its instrumental function.

Individual differences in meanings and interpretations of money reflect several factors, such as gender, age, wealth, or personality (Furnham & Argyle, 1998), and many taxonomies of money attitudes have been developed, mainly revealing motives, beliefs, and behavioral orientations towards money. The existing literature about money attitudes is thus quite fragmented, revealing a wide variety of methodological tools used to measure the construct and a rich (and heterogeneous) body of results concerning the role of money attitudes in many different contexts. Previous reviews on the psychological perspective on money provided insights on methods and demographics but without adopting a systematic approach (Furnham & Grover, 2022; X. Wang et al., 2020). Considering the richness and fragmentation of previous literature regarding money attitude, this (systematic) scoping review aims to map existing knowledge around the topic, specifically 1) inquiring how this multi-dimensional construct has been investigated from a methodological perspective and 2) mapping its connections with key correlates, such as socio-demographical variables, macro-economic factors, personality traits and values, money management practices, and job-related variables. To do so, we systematically reviewed studies investigating the attitudes towards money in order to outline their conclusions, describe how they measured money-related variables, and delineate future directions as well as practical implications derived from the review.

2. Methods

To achieve our aim, a scoping review was selected from among the different existing knowledge synthesis methodologies (Whittemore et al., 2014). Such methods allow us to map concepts, evidence and gaps around a defined research area through a systematic process of searching and selecting sources of knowledge (Colquhoun et al., 2014). Furthermore, the review adopted the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement as a methodological guideline to ensure a transparent and complete reporting (Figure 1) (Peters et al., 2015). As a first step, we had to define the research questions so as to outline the key information from each source:

1. Diffusion: When was the study published? What journal published the paper? Where was the study conducted? Who is(are) the author(s)?
2. Purpose and research questions: What was the overall aim of the study? What other variables were included in the study? Which context did the research focus on?
3. Operationalization of the construct: What dimension(s) of money attitudes did the research investigate?
4. Methods: Which methods were used? What instrument did the author(s) use to investigate money attitudes? Was it validated? What dimensions of money attitudes were included? How many items did the author(s) employ?
5. Results: What did the study find about the connection between money attitudes and the investigated variables?

Next, we had to define how to identify the relevant studies, including decisions about where to search and how to compose the search string (Levac et al., 2010). The following four electronic databases were used to conduct the research, so as to cover a wide range of areas and academic fields: Scopus, Web of Science, PsycINFO and EconLit. The databases were searched up to 7 April 2022. The following Boolean search string was researched in titles, abstracts and key words: [(“money attitude*” OR “attitude* toward* money” OR “attitude* to money” OR “money type*” OR “money belief*” OR “monetary belief*” OR “money factor*” OR “meaning* of money” OR “money meaning*” OR “love of money” OR “money style*”) OR (“money” AND (“emotional association*” OR “emotional dimension*” OR “affective association*” OR “affective dimension*” OR “emotional side*” OR “affective side*” OR “emotional trait*” OR “affective trait*”))]. The string was searched in the four databases, resulting in a pool of 624 papers (English-language articles), after duplicates removal. Six additional papers were added from other sources (e.g., analyzing references of selected papers). To be selected, studies were required to: a) be peer-reviewed papers; b) be full-text English written papers; c) be empirical papers; d) focus on attitudes towards money, including meanings, beliefs and emotions attributed to money, in different contexts (such as consumption, ethical decisions, financial behaviors, salary, and well-being, among others); e) focus on the individual dimension rather than on couples or households (since dyadic and group dimension involves dynamics going beyond the target of this review); and f) include adult subjects rather than children or adolescents. Also, exclusion criteria included: a) papers investigating attitudes towards constructs other than money (e.g., credit, saving, risk); b) studies involving a population of children and adolescents (since they do not have a well-defined and established relationship with money, due to lack of experience in the economic domain); c) papers which were not peer-reviewed (e.g., book reviews, conference abstracts); and d) theoretical dissertations with no empirical studies. The first selection stage involved the screening of titles and abstracts, and it was performed independently by two researchers; any disagreement was discussed to reach an agreement. When the information included in the abstract was not sufficient to determine inclusion or exclusion, the full text was examined. After the screening of titles and abstracts was completed, 363 papers were excluded that did not fit the eligibility criteria (e.g., papers examining parental influence on children’s financial behaviors, studying the ef-

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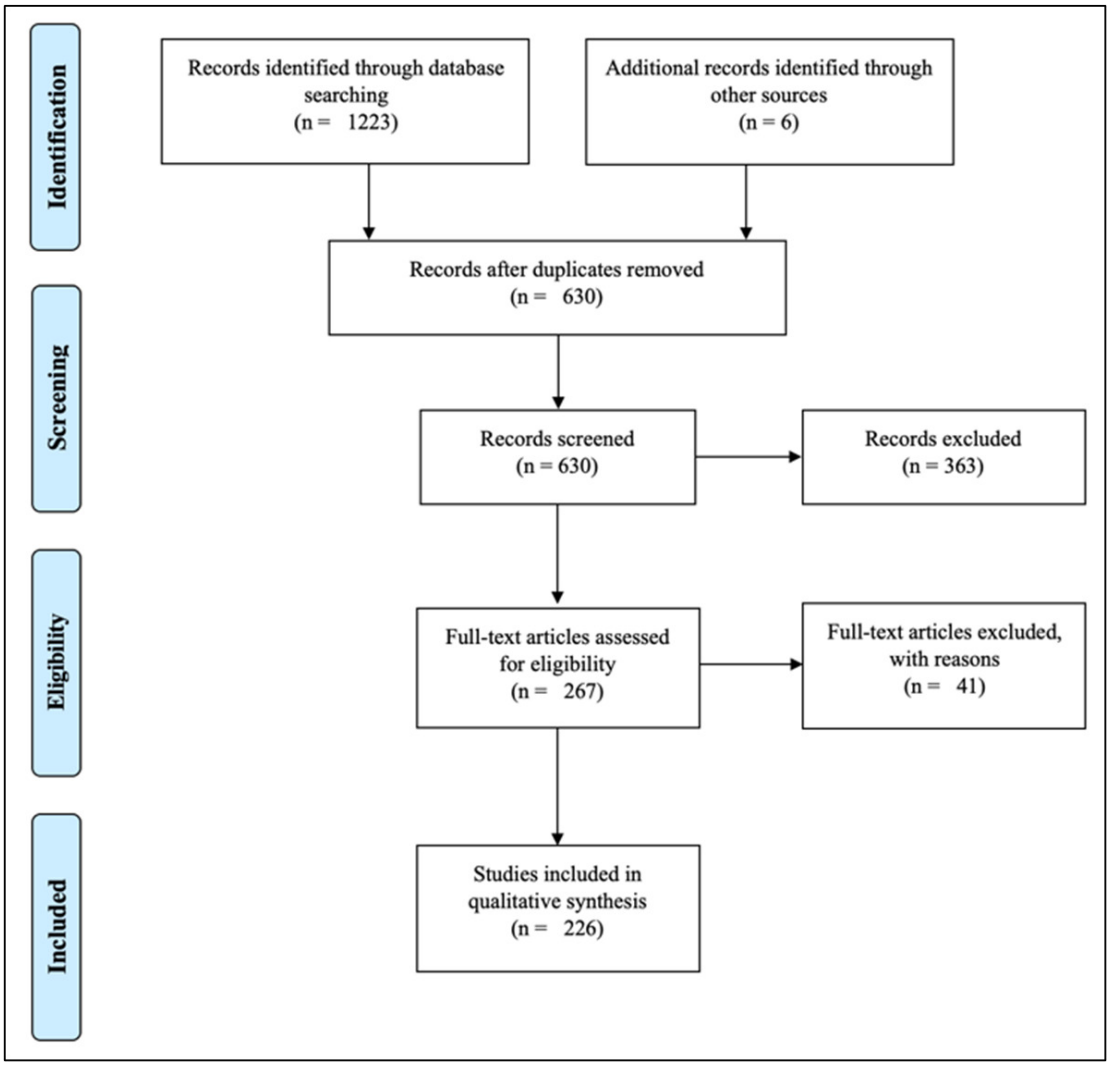

Figure 1. PRISMA diagram of selection process

fect of socio-demographics on financial well-being, exploring the role of money in couples' satisfaction, investigating the predictors of online and offline shopping, etc.). Finally, 226 papers met the abovementioned criteria and were included in the following analysis, while 41 were excluded after reading the full text (e.g., because they only focused on money management practices, or they were theoretical papers). The full list of references included in the review is available upon request from the authors.

3. Results

The result section is organized as follows: descriptive data are provided, giving an overview of selected papers in terms of year of publications, countries, and journals. Next, methodological aspects are outlined, discussing the most used scales in the literature. Last, the relationship between money attitudes and correlates is presented, including demographics, macro-economic factors, personality traits and ethical values, money management practices, financial well-being and job-associated factors.

3.1. Descriptives

Overall, 226 papers were included in the scoping review. Papers were published between 1971 and 2022, and in Figure 2 a growing number of publications can be acknowledged, particularly after 2000.

Regarding the countries where research was conducted, 31% of studies was performed in Asia, and another 30% in North America, followed by 23% of studies carried out in Europe (Table 1).

As for the methodological aspect, almost all studies (95.6%) adopted a quantitative perspective (mainly through surveys), while the remaining 4.4% employed qualitative or mixed methods (e.g., Belk & Wallendorf, 1990; Chan-Brown et al., 2016). Looking at the journals, the most represented journal was *Journal of Business Ethics* (fields of business, management, economics) which published 8% of the selected papers. The *Journal of Economic Psychology* and *Personality and Individual Differences* follow with 6% of studies each, and *Psychological Reports* accounts for 5% of publications. The remaining journals published less than 8 articles each.

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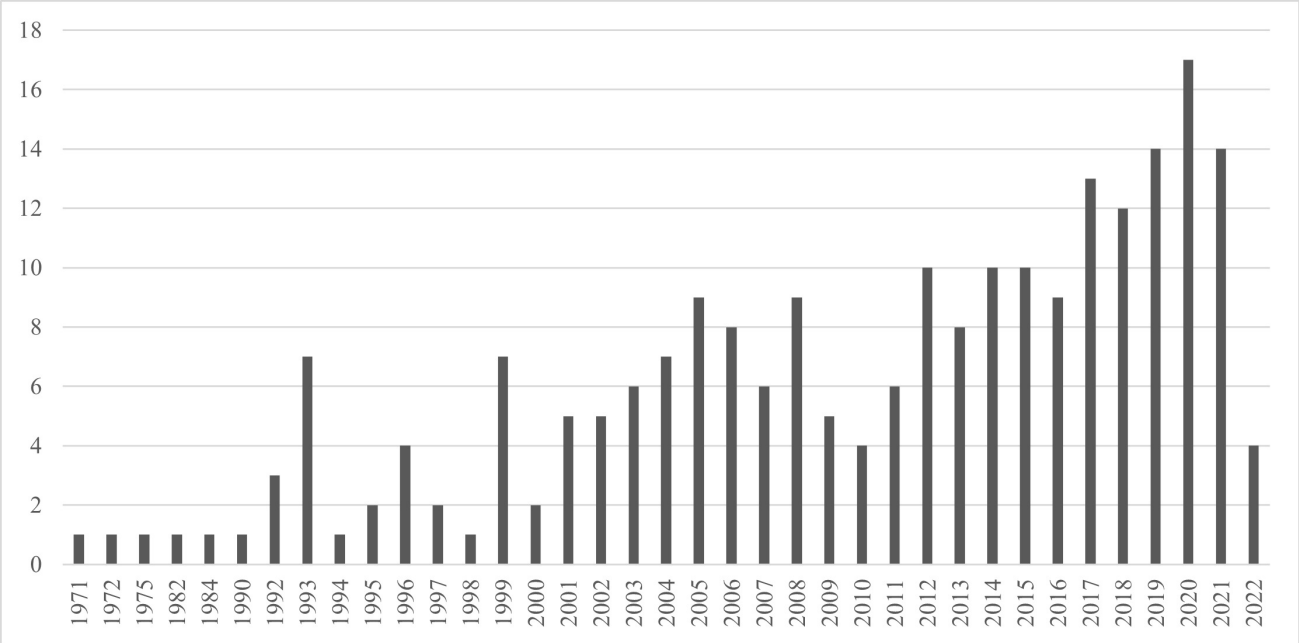

Figure 2. Number of studies per year of publication

Table 1. Percentage of studies conducted in each macro-geographical region

Macro-geographical region	Percentage of studies
Asia	31%
North America	30%
Europe	23%
Africa	4%
Central and South America	2%
Oceania	2%
Cross-cultural studies	8%

4. Results: Measures to Assess Money Attitudes

Many different scales have been developed to measure individual attitudes towards money. The next section is organized as follows: the most used scales will be individually presented, discussing dimensions and contents; next, additional measures will be introduced, presenting the potentials of each one despite their limited presence in the literature. Overall, we will focus on four major scales used by 64% of the articles (see Table 2). The Money Attitude Scale will be presented first. The Love of Money Scale will follow, jointly with the Money Ethics Scale, as the former originated from the latter. Next, the Money Beliefs and Behaviors Scale will be discussed. Last, a section will be devoted to other measures.

4.1. Money Attitude Scale

The Money Attitude Scale (MAS) was created by Yamauchi and Templer (1982), in the attempt to fill the gap in the psychological literature about money. To do so, they relied on a deep investigation of clinical and psychodynamic literature, targeting Freud, Ferenczi, and other psychotherapists' thoughts. Starting from a conception of money as a meaningful object exerting subconscious effects on people, the two authors proposed a tool covering five specific content areas: retention-time (assessing the tendency toward careful financial planning and placing great value on being prepared for the future rather than a present-oriented vision); distrust (referring to hesitancy and suspicion in situations involving money); anxiety (a person high on anxiety experiences money as a source of stress as well as a source of protection from anxiety); power-prestige (involving a vision of money as a means to influence, impress others and show one's superiority); and quality (dropped in the validation study due to internal consistency issues, this factor is linked to an attention to premium products and good deals). MAS had been used in several domains, including saving and credit behavior (e.g., Doğan et al., 2018; Hayhoe et al., 2012; Norvilitis et al., 2003; Simanjuntak & Rosifa, 2016), purchasing habits (e.g., Mulyono & Rusdarti, 2020; Workman & Lee, 2019), personal values (e.g., Manchanda, 2017; Watson et al., 2004), and money management (e.g., Elgeka et al., 2018; Spinella et al., 2007).

The scale had been used and validated in sixteen countries around the world, mostly in North America (e.g., Baker & Hagedorn, 2008; Medina et al., 1996; Shafer, 2000; Spinella et al., 2014) but also in Europe (e.g., Engelberg, 2007; Furtner et al., 2021; Lejoyeux et al., 2011; Pereira & Coelho, 2020), Asia (e.g., Durvasula & Lysonski, 2010; Khandelwal et al., 2021; Mulyono & Rusdarti, 2020; Rimple, 2020), South America (Roberts & Sepulveda, 1999a, 1999b; Veludo-de-Oliveira et al., 2014), Africa (Bonsu, 2008; Burgess, 2005; Rousseau & Venter, 1999), and Australia (Phau & Woo, 2008).

Although many studies used the original scale proposed by Yamauchi and Templer, several versions of the MAS are available, selecting only some dimensions or mixing them

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Table 2. The most employed scales in the literature (used in at least 2% of analyzed studies)

Scale	Authors	Factors	Number of Items (complete version)	Percentage of papers using the scale
Money Attitude Scale (MAS)	Yamauchi & Templer (1982)	Power/prestige, Retention/time, Distrust, Anxiety and Quality (dropped in the original study)	29	23%
Love of Money Scale (LOM)	Tang & Chiu (2003)	Motivator, Success, Rich, Importance	17	19%
Money Beliefs and Behaviors (MBBS)	Furnham (1984)	Obsession, Power/Spending, Retention, Security/Conservative, Inadequacy, Effort/ability	60	11%
Money Ethics Scale (MES)	Tang (1992)	Good, Evil, Achievement, Respect, Budget, Freedom (Power)	30	11%
Money Types Questionnaire	Furnham et al. (2012)	Love, Power, Security, Freedom	16	4%
Money Attitude Scale	Lim & Teo (1997)	Obsession, Power, Budget, Achievement, Evaluation, Anxiety, Retention, Non-generous	34	4%
Money Attitude Questionnaire (MAQ)	Gasiorowska (2008)	Instrumental component (Financial control, Debt aversion, Occasion-seeking) and Symbolic component (Root of evil, Power, Money anxiety)	25	3%
Money-Motivation Scale (MMS)	Rose & Orr (2007)	Worry, Status, Achievement, Security	19	2%
Monetary Intelligence Scale	Chen et al. (2014)	Behavioral component (Making, Budgeting, Donating Money, and Contributing), Affective component (aspiration for money and strong emotions), Cognitive component (Achievement, Respect, Power, and Happiness)	30	2%
Klontz Money Script Inventory (KMSI)	Klontz et al. (2011)	Money avoidance, Money worship, Money status, Money vigilance	51	2%

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(e.g., mixing distrust and anxiety as a single factor; Medina et al., 1996). Some studies succeeded in replicating the same structure, while others proposed a divergent framework. For instance, price sensitivity emerged as an additional factor, to indicate personal attention to prices and bargains (Khare, 2014; Norum, 2008; Phau & Woo, 2008; Roberts & Jones, 2001). Also, the original MAS employed a 7-point Likert-type scale, with 1=never and 7=always. However, other scholars selected a different format with 5 points (e.g., Hayhoe et al., 2012; Pereira & Coelho, 2020; Rousseau & Venter, 1999) or 4 points (Simanjuntak & Rosifa, 2016).

4.2. Money Ethic Scale and Love of Money

Developed in the organizational context, the Money Ethic Scale was designed to investigate how the significance attributed to money impacts work-related behaviors and motivations. Money ethic refers to a frame of reference through which people examine their everyday life (T. L.-P. Tang, 1992). Initially, the scale was validated on a sample of American full-time workers and was composed of six factors and 30 items: the factor Good refers to the degree of importance money holds in one's life; Evil reflects a negative attitude to money, viewing it as a pernicious and shameful object; a high score on Achievement means that money symbolizes success and status; the factor Respect entails the belief that money can help to express one's abilities and value; Budget refers to the individual capacity to manage in- and out-flows; and lastly, the factor Freedom (Power) implies a vision of money as a passport to gain autonomy and exert power. As underlined by Tang (1993), it is possible to identify three macro-dimensions of money ethic: the affective component (comprising good and evil) corresponds to one's perception of money as a useful and valuable thing in life, as opposed to a vision of money as evil and useless; the cognitive component (including achievement, respect, freedom/power) includes people's beliefs about money as a symbol of success and autonomy; and the behavioral component (referring to budget) relates to how people manage their money. A short version was later proposed, comprising 12 items and three factors, namely Success, Evil and Budget (T. L.-P. Tang, 1995). Both the long and the short versions employ a 7-point Likert-type scale, although other studies used a 5-point scale.

Ten years after the publication of the Money Ethic Scale, Tang introduced a new concept: the Love of Money (T. L.-P. Tang & Chiu, 2003). Inspired by the Western and Judeo-Christian proposition "the love of money is the root of evil" (Bible: 1 Timothy, 6: 10), he proposed to examine this construct in an attempt to provide insights and implications in the organizational and working contexts. Indeed, the idea behind Love of Money relates to business ethics, which is a guiding principle of employees when making decisions in business contexts. Operationally, Love of Money represents a sub-dimension of the Money Ethic Scale. The validation study included four factors: motivator (money is a motivational driver), success (money is a sign of one's success and achievement), rich (individual actions are connected to the desire to become rich), and importance (money is a critical part of one's life). Later studies also validated different versions of the scale, with 9 items (factors of rich, motivator, and importance) (e.g., N. Tang et al., 2018; T. L.-P. Tang, Chen, et al., 2008) to 15 items (factors of budget, evil, equity, success, and motivator) (e.g., Oliveira & Marques, 2020; T. L.-P. Tang et al., 2004).

Both the LOM and the MES have been studied in a body of research conducted all over the world. Besides the United States, where most of the studies were conducted, the scales were used in Europe (e.g., Henchoz et al., 2019; Lemrová et al., 2014; Manippa et al., 2021), Asia (e.g., Jia et al., 2013; Kashif & Khattak, 2017; Sundarasen & Rahman, 2017; Y.-D. Wang & Yang, 2016; Wong, 2008), Brazil (Monteiro et al., 2015), and Africa (Fatoki, 2015; Owusu, Bekoe, et al., 2021). Furthermore, cross-cultural research has been carried out for both the MES and the LOM scale (Luna-Arocas & Tang, 2004, 2015; Marques et al., 2019; T. L.-P. Tang, Furnham, et al., 2002; T. L.-P. Tang, Luna-Arocas, et al., 2005; T. L.-P. Tang, Sutarso, et al., 2008). Looking at the research context, the vast majority of studies using the LOM or the MES were performed in the organizational and working context or in relation to ethical perceptions; the few exceptions concern investments (N. Tang et al., 2018), tax compliance (Pratama, 2017), and money management (Aydin & Akben Selcuk, 2019; Chuah et al., 2020; Sundarasen & Rahman, 2017).

Following and enlarging the previous studies, Tang and Sutarso (2013) formulated the theory of Monetary Intelligence, including the construct of love of money. The theory posits that monetary intelligence represents an individual difference variable, comprising affective (ability to appraise monetary motive), behavioral (control intentions and actions linked to money) and cognitive (promote well-being and personal growth) components. As the authors did with the MES and LOM scales, the Monetary Intelligence Scale followed, composed by three macro dimensions: a behavioral component (Making, Budgeting, Donating Money, and Contributing); an affective component (aspiration for money and strong emotions); and a cognitive component (involving Achievement, Respect, Power, and Happiness). The scale has been particularly used to study unethical intentions (e.g., Chen et al., 2014; Sardžoska & Tang, 2015; T. L.-P. Tang, 2016; T. L.-P. Tang & Sutarso, 2013), job satisfaction (e.g., Sardžoska & Tang, 2015), and pay and life satisfaction (e.g., T. L.-P. Tang et al., 2018a). The construct has been broadly used in three dozen entities around the world (T. L.-P. Tang et al., 2018a, 2018b).

4.3. Money Beliefs and Behaviors Scale

One of the first developed scales to measure money attitudes is the Money Beliefs and Behaviors Scale (MBBS), conceived and validated by Furnham (1984). The aims behind the development of this instrument were to investigate the relationship with socio-demographic features and to explore the etiology of beliefs associated with money. The MBBS was validated with a British sample and comprised 60 items on a 7-point agree–disagree scale, inspired by the MAS (Yamauchi & Templer, 1982), the Midas scale used by Rubinstein (1980) with readers of Psychology To-

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day, and the work by Goldberg and Lewis (1979). The scale included six separate factors: Obsession (centrality of money in one's life), Power/spending (relative to a use of money to show off and reflect status), Retention (tendency to keep money or use it cautiously), Security/conservative (a more "traditional" approach characterized by conserving money as a safety net), Inadequacy (feeling of not having enough money), and Effort/Ability (belief about money reflecting competence). Later versions exist, like the one proposed by Bailey and Gustaffson (1991) comprising factors of obsession, inadequacy and retention. Other studies failed in replicating the original structure (e.g., Sabri & Zakaria, 2015; Yang & Lester, 2002) or modified the scale to better fit specific targets (e.g., university students in Hayhoe et al., 2005). Mostly employed in US studies (e.g., Allen et al., 2007; Christopher et al., 2004; Stone & Maury, 2006), the MBBS was used also in studies conducted in Europe (UK: Furnham, 1984; Netherlands: Wiepking & Breeze, 2012; Germany: Kirkcaldy & Furnham, 1993; Russia: Tatarko & Schmidt, 2012) and Asia (e.g., Abdullah et al., 2019; Khaleque, 1992; Wu & Lin, 2003). Lastly, a very large study on 41 different countries was conducted by Furnham et al. (1994) to examine the relationship between attitudes and a great variety of up-to-date economic measures. Like the MAS, the MBBS was included in many research contexts: credit behavior (e.g., Hayhoe et al., 2005; Yang & Lester, 2001), purchasing habits (e.g., Hanley & Wilhelm, 1992; Yang & Lester, 2005), personal values (e.g., Christopher et al., 2004; Tatarko & Schmidt, 2012), and investments (Owusu, Anokye, et al., 2021). More recently, Lay and Furnham (2019) created a new money attitudes questionnaire, partially overlapping the MBBS, with the addition of financial literacy worries. This factor relates to a retentive attitude, characterized by a degree of ignorance about financial events and affairs resulting in anxiety and worry.

4.4. Other Measures

As mentioned above, besides the four most employed scales (MAS, MES, LOM, MBBS), there are also additional validated measures that are less popular than these.

Lim and Teo (1997) created their own instrument to measure money attitudes, in an attempt to adopt a combined and more reliable version of the previous scales (MAS, MBBS, MES). They obtained a 34-item scale, containing eight factors, partially comparable with Furnham's: Obsession (reflecting individuals' preoccupation with thoughts of money), Power (money is experienced as a source of power), Budget (referring to the ability to use money cautiously), Achievement (reflecting the perception that the amount of money earned is an indicator of success), Evaluation (money is seen as a means of comparison), Anxiety (reflecting a worrisome attitude about money), Retention (linked to a pathological tendency to refrain from spending), and Non-generous (referring to individuals who are unlikely to donate to charity). First validated in Singapore, the scale has been used in the US (Oleson, 2004), China (Lim, 2003), Switzerland (Keller & Siegrist, 2006a), Australia (Dowling et al., 2009) and UK (X. Wang & Krumhuber, 2017).

In the marketing field, the Money-Motivation Scale (MMS) was created by Rose and Orr (2007) to explore the symbolic meanings of money. Through a mixed-methods study including in-depth interviews and quantitative studies, the authors developed a scale to measure four dimensions: status (reflecting the tendency to view money as a sign of prestige), achievement (referring to the perception of money as a proof of one's accomplishments), worry (depicting a worrisome attitude to money), and security (linked to the tendency to save and value money as a source of safety). As outlined by the authors, those dimensions refer to the motivational meanings associated with money, which exert an influence on consumption behaviors and money management styles. Originally validated in the US, the scale was also used in South Africa (Duh, 2016; Inseng, 2019), China (Duh et al., 2021), Brazil (Barros et al., 2017), and Turkey (Dogan & Torlak, 2014).

Next, taking inspiration from the work of previous clinical psychologists regarding the meanings associated with money (Forman, 1987; Goldberg & Lewis, 1979), the Money Types Questionnaire was developed (Furnham et al., 2012), with the aim of evaluating a short tool to measure the most frequent meanings of money and to better understand people's relationship with money. The authors included four factors representing "the most common unique money-associated emotions" (Furnham et al., 2012, p. 707): love (money as a substitute for emotion and affection), power (money as a means to acquire control and importance), freedom (money as a means to pursue one's interests and gain autonomy), and security (money as an emotional lifejacket). Despite some reliability issues, the questionnaire has been used in several studies, mostly in UK (Fenton-O'Creevy & Furnham, 2020; Matz & Gladstone, 2020; von Stumm et al., 2013), although some research has also been carried out in Italy (Lippi et al., 2021; Lozza et al., 2022), Australia (Furnham & Murphy, 2019) and the US (Matz & Gladstone, 2020).

Another recent scale was developed by Gasiorowska (2008). Starting from the distinction between the instrumental and symbolic functions of money, the author proposed an instrument able to give insights in terms of money management (the instrumental component of money attitudes) and affective meanings (assessing the trigger of positive or negative aspects). Promising results have been provided regarding the relationship between money attitudes, the objective and subjective perception of wealth and personality traits (e.g., Gasiorowska, 2015; Pilch & Górnik-Durose, 2017). Nevertheless, the scale has been used solely in Poland so far.

A special mention is needed for the Klontz Money Script Inventory (KMSI), conceived to assess individual's destructive money beliefs and behaviors (Klontz et al., 2011). The concept of a money script refers to strong beliefs developed during childhood, which are frequently unconscious and act as drivers of one's financial behaviors. The attention given to implicit aspects is what differentiates this scale from the previous ones, which focus on explicit attitudes and motives. The instrument was created based on clinical observation of clients seeking help for financial therapy. Overall,

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four main factors were identified: money avoidance refers to the tendency to experience money negatively, which leads people to manage money in an ineffective and self-destructive way and is connected to distrust and anxiety attitudes; money worship refers to the belief that money can solve all problems and is related to money disorders like compulsive hoarding, overspending and pathological gambling, as well as to feelings of anxiety in dealing with money but also to a sense of power derived from it; money status script refers to those people who hold a competitive vision of money as a means to gain higher status and prestige; lastly, money vigilance refers to the belief that money is a source of shame and secrecy and it is related to a retentive and worrisome attitude (Taylor et al., 2015). The KMSI was used to classify eight types of money disorders, giving insights for timely and effective interventions (for an overview, see Taylor et al., 2017). So far, the scale has been used in the US (e.g., Sholin et al., 2021; Taylor et al., 2015) and Pakistan (e.g., Nadeem et al., 2020).

There are few other (not always validated and/or less frequently employed) scales that can be mentioned for thoroughness. In their foundational work, Wernimont and Fitzpatrick (1972) used a semantic differential scale to explore emotions and meanings related to money, identifying both positive and negative affective attitudes. Forman (1987) used twenty dichotomous questions to investigate the emotional underpinnings of money, disclosing maladaptive and inconvenient approaches. Prince (1993) developed a scale to measure money beliefs (role of fate and effort in wealth, beliefs about rich people), values (importance of money and expensive goods) and emotions (personal appraisal of individual traits with respect to money). Newcomb and Rabow (1999) focused their study on how people feel in relation to money in terms of either positive or negative affect. Finally, a recent contribution was made by Franzen and Mader (2022), who developed the Importance of Money Scale (IMS): taking partial inspiration from the factor "value importance of money" originally designed by Mitchell and Mickel (1999), the authors developed a totally new unidimensional scale with eight items intended to measure the degree of importance attributed to money to live a happy and well-off life and also covering the dimension of material well-being. At the time of writing, the IMS has been solely used in Switzerland.

To summarize this section on the measures of money attitudes, there are several validated scales which only partially overlap and comprise diverse latent factors. Each scale has its own specificities that convert into more appropriate fields of applications. Lastly, despite the intent to study the three components of attitude (affective, behavioral, cognitive), it is worth noting that most items are worded in terms of behaviors or beliefs rather than feelings. These issues will be later resumed and debated in the discussion section.

5. Results: Correlates of Money Attitudes

The second aim of the present review was to offer a broad overview of the relationship between money attitudes and other variables. This section will first address demographic features, uncovering the link between gender, age, income and education with money attitudes, followed by a brief overview on macro-economic factors. Next, personality traits and ethical values will be discussed. Money management practices will follow, with a deep dive on the major financial behaviors. The section will close with a discussion on financial well-being and satisfaction and with job-associated factors.

5.1. Demographic Correlates

5.1.1. Gender

With regard to gender, the results suggest women and men have different approaches to money. Specifically, men tend to more frequently associate money with power and prestige, viewing it as a means to obtain respect, impress others and demonstrate value and status. In contrast, women are more likely to be concerned with spending and feel more anxious about money, thus experiencing their relationship with money in a more ambivalent way. Proofs of this distinction come from studies conducted all over the world, suggesting a quite homogeneous cultural agreement among studies in Europe (e.g., Furnham et al., 2012; Furtner, 2020; Pereira & Coelho, 2020; Tomek et al., 2013), the US (e.g., Oleson, 2004; T. L.-P. Tang, 1995; Watson et al., 2004), and Asia (e.g., Lim et al., 2003; Rimple, 2020). A few studies suggesting the same insight have been performed in South America (Denegri et al., 2012) and Africa (Bonsu, 2008). Nevertheless, there are also few divergent studies, suggesting a tendency for women to view money as a source of power (Shih & Ke, 2014; Wilhelm et al., 1993) and for men to express anxiety while dealing with money (Bonsu, 2008; Lim et al., 2003; Rimple et al., 2015).

5.1.2. Age

Young people seem to be more obsessed with money than older people, attributing more importance and centrality to it (Furnham & Grover, 2020; N. Tang et al., 2018; T. L.-P. Tang et al., 2018a; T. L.-P. Tang, Sutarso, et al., 2008; Tomek et al., 2013). Indeed, worries and anxiety tend to decrease with age, with older people being stronger on saving, planning and holding a long-term view on money (Bailey & Lown, 1993; Hayhoe et al., 2012; Rimple et al., 2015; Shih & Ke, 2014). Thus, older people tend to view money in a more positive and pragmatic light, while younger people have more associations with symbolic aspects of money (such as power and freedom) and more anxiety about money (Baker & Hagedorn, 2008; Furnham, 1984; Lay & Furnham, 2019; Rousseau & Venter, 1999; T. L.-P. Tang, 1992, 1995). However, there are few studies providing divergent results, for example finding that older people obtain lower scores on budget factors (T. L.-P. Tang, 1993) or display a stronger love of money (Maggalatta & Adhariani, 2020; T. L.-P. Tang et al., 2004). Lastly, some studies found no connection between age and money attitudes (e.g., Pereira & Coelho, 2020; T. L.-P. Tang et al., 2000; T. L.-P. Tang & Chen, 2008).

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5.1.3. Income

Predictably, high-income individuals tend to express lower anxiety in their relationship with money (Baker & Hagedorn, 2008; Gasiorowska, 2014; Rousseau & Venter, 1999), while low-income people hold more positive expectations for the future and higher associations with the symbolic component of money (Bailey & Lown, 1993; Gasiorowska, 2015). Furthermore, many studies found that income enhances individual worship of money; among these, most were conducted in the US (Luna-Arocas & Tang, 2015; T. L.-P. Tang et al., 2004, 2006; T. L.-P. Tang & Tang, 2012), with the exception of one study conducted in Indonesia (Maggalatta & Adhariani, 2020) and the cross-cultural study by Luna-Arocas and Tang (2004) conducted in Spain and the US. However, Furnham (1984) found English people with lower income to be more obsessed with money and more likely to view it as a symbol of power; in contrast, higher-income people were more likely to believe that the ability to earn money was due to effort and ability. Also, Tang and Chiu (2003) found a negative relationship between love of money and income, suggesting that Chinese low-income people tend to attribute a central role to money as a motivator and a sign of success. Furthermore, there are also studies that showed no significant connection between such variables (e.g., Fenton-O'Creevy & Furnham, 2020; Tung & Baumann, 2009; von Stumm et al., 2013). Possibly, the relationship between income level and the importance attributed to money varies according to cultural differences.

5.1.4. Education

Few studies looked at educational differences. Still, evidence suggests that better-educated people tend to associate money with power and success more often than less-educated individuals (Lay & Furnham, 2019), who are more likely to express money-related anxiety and concerns (Dogan & Torlak, 2014; Lay & Furnham, 2019). Also, higher levels of education appear to be connected to a stronger inclination to plan and budget (Roberts & Sepulveda, 1999a). Nevertheless, many studies found no relationship between money attitudes and education, leaving the discussion open (e.g., Furnham & Grover, 2020; T. L.-P. Tang, 1995; T. L.-P. Tang & Liu, 2012; von Stumm et al., 2013).

5.2. Individual Traits

Results on the connection between money attitudes and personality traits are quite fragmented and multi-faceted. Here we aim to present an overview of the main traits for each major dimension of money attitudes: anxiety, power/status, retentive propensity, and money as evil. Last, relationship between ethical intentions and money attitudes are discussed.

5.2.1. Money as a Source of Anxiety

First, people experiencing anxiety in money-related situations tend to display higher levels of stress and impulsiveness (Norvilitis et al., 2003), as well as higher levels of materialism (Manchanda, 2017; Pilch & Górnik-Durose, 2017) and paranoia (Yamauchi & Templer, 1982). They also appear to have lower self-esteem (Duh et al., 2021) and to be more conscientious and neurotic than people who associate other meanings to money (Furtner, 2020; Shafer, 2000).

5.2.2. Money as Power/status

People who view money as a sign of power, status and prestige tend to be more impulsive (Norvilitis et al., 2003), more materialistic (e.g., Duh et al., 2021; Durvasula & Lysonski, 2010; Lemrová et al., 2014; Manchanda, 2017; Pilch & Górnik-Durose, 2017), less friendly (Fenton-O'Creevy & Furnham, 2020; Furtner, 2020), with higher self-esteem (Prince, 1993; Tang et al., 2005), and more Machiavellian (Yamauchi & Templer, 1982). Similarly, people with high levels of money obsession, money importance and love of money tend to be less emotionally stable as well as more Machiavellian (Engelberg & Sjöberg, 2007; Manchanda et al., 2017; T. L.-P. Tang & Chen, 2008).

5.2.3. Retentive Approach

A conservative and retentive approach to money is related to a low level of materialism (Christopher et al., 2004; Lemrová et al., 2014) but also to an obsessive personality (Yamauchi & Templer, 1982). Such people tend also to be more reserved and conscientious (e.g., Shafer, 2000; T. L.-P. Tang & Kim, 1999) and to have higher self-esteem (Duh et al., 2021). The tendency to effectively budget money and see it as a source of respect is also linked to stronger competitive personality traits and higher self-esteem (T. L.-P. Tang & Gilbert, 1995; Tang et al., 2002; Tokunaga, 1993).

5.2.4. Money as Evil

Furthermore, viewing money as evil was found to be negatively related to extraversion (Shafer, 2000), materialism (e.g., Pilch & Górnik-Durose, 2017) and positively with self-esteem (T. L.-P. Tang, 1995); materialism is also a trait of people who feel inadequate or apprehensive in situations involving money (Christopher et al., 2004; Rimple et al., 2015).

5.2.5. Ethical Perceptions

Lastly, attitudes toward money are also related to ethical perceptions and intentions. Generally, evidence suggests a relationship between the centrality of money and ethical intentions. Specifically, it seems that people with an inclination towards budgeting and monitoring expenses are less accepting of unethical behaviors, as well as individuals who view money as evil (e.g., Furnham, 1996; Oliveira & Marques, 2020). The love of money and even a higher interest in money emerge as significant predictors of unethical intentions (e.g., Chen et al., 2014; T. L.-P. Tang, 2016; Wong, 2008). Exceptions are Owusu, Bekoe, et al. (2021), who found that people with a more positive view of money are more likely to engage in ethical intentions and actions,

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and Singh (2018), who proposed that only the interaction between money attitudes and spiritual orientation is able to predict consumer ethical beliefs.

5.3. Macro-economic Factors

Only few studies conducted a cross-cultural comparison in terms of money attitudes, presenting some interesting evidence concerning the role of macro-economic richness in individual attitudes towards money. Indeed, it is suggested that GDP per capita has a significant relationship with money attitudes. Specifically, people living in richer countries tend to hold lower aspirations of money and higher stewardship behavior (Furnham et al., 1994; T. L.-P. Tang et al., 2018a). At the same time, individuals in lower GDP countries appear to be more competitive, more concerned about money and more worried about saving for the future (Furnham et al., 1996). In other words, it seems that people in richer countries display a comparatively lower interest towards money, which on the other side is higher among individuals in poorer societies.

5.4. Money Management Practices

The relationship between money attitude and money management practices is supported by several studies. In this section we present the findings related to: compulsive buying behaviors, credit and debt habits, budgeting and monitoring practices, saving and investments.

5.4.1. Compulsive and Impulsive Buying

Several scholars attempted to study the relationship between money attitude and compulsive buying, a behavioral tendency characterized by preoccupation with buying and irresistible impulses to purchase even more than can be afforded and needed (Williams & Grisham, 2012). Evidence indeed suggests a connection between money attitude and compulsive buying. Specifically, an individual propensity to see money as a symbol of power and status has been found to be positively connected with an impulse to buy, unveiling a tendency to use the symbolic aspects of the products to gain higher social prestige (Fenton-O'Creevy & Furnham, 2020; Harnish et al., 2018; Khare, 2014; Norum, 2008; Pahlevan Sharif & Yeoh, 2018; Phau & Woo, 2008; Roberts & Jones, 2001; Roberts & Sepulveda, 1999b; Rose & Orr, 2007; Simanjuntak & Rosifa, 2016; Spinella et al., 2014; Veludo-de-Oliveira et al., 2014). Also feeling distrustful or anxious in situations involving money appears to be related to higher compulsive buying, as to alleviate undesirable mood states through purchases and products (Harnish et al., 2018; Lejoyeux et al., 2011; Norum, 2008; Pahlevan Sharif & Yeoh, 2018; Roberts & Jones, 2001; Roberts & Sepulveda, 1999b; Rose & Orr, 2007; Simanjuntak & Rosifa, 2016; Spinella et al., 2014; Veludo-de-Oliveira et al., 2014). This is in line with Workman and Lee (2019), who found that individuals scoring high on factors of anxiety, distrust and power tend to be more willing to quickly purchase products in their early acceptance stages of the market entrance but also to experience stronger feelings of regret after a (completed or missed) purchase. Furthermore, also Furnham and Okamura (1999), in their examination of the correlates of money pathology, found that both spendthrifts and individuals valuing money as power were more prone to negative emotions such as anger, anxiety and depression. In contrast, compulsive behavior is less common in people with retentive inclinations toward money; in other words, individuals with a tendency to plan for the future, carefully manage financial resources, and view money as a security blanket are less prone to impulsive purchases (Fenton-O'Creevy & Furnham, 2020; Harnish et al., 2018; Roberts & Sepulveda, 1999b; Rose & Orr, 2007; Simanjuntak & Rosifa, 2016; Spinella et al., 2014; Veludo-de-Oliveira et al., 2014).

5.4.2. Credit Behaviors

Another line of research focused on the role of money attitudes in credit behaviors. Credit usage was found to be linked to an inclination to use money as prestige and power, as well as a sign of independence (Doğan et al., 2018; Hayhoe et al., 2005; Khandelwal et al., 2021; Moore & Carpenter, 2009; Pereira & Coelho, 2019; Tokunaga, 1993). Similarly, loans are more frequent in individuals who see money as a sign of status and power, whereas distrustful attitudes to money relate to a higher tendency to reject loans and thus to avoid debt (Doğan et al., 2018; Henchoz et al., 2019; Tomek et al., 2013). At the same time, stronger feelings of not having enough money and of money-related anxiety lead people to more frequently rely on credit (Allen et al., 2007; Hayhoe et al., 2005; Simanjuntak & Rosifa, 2016; Tokunaga, 1993). In contrast, individuals who are more inclined to hold a retentive attitude toward money are unsurprisingly less likely to engage in credit behaviors (Hayhoe et al., 1999; Tokunaga, 1993; Yang & Lester, 2001). Indeed, a stronger disposition to care about and monitor money is negatively connected to indebtedness (de Almeida et al., 2021; Stone & Maury, 2006), whereas risky borrowers tend to hold negative attitudes towards money, leading them either to refuse to use money or to emotionally spend it with no control (Ganbat et al., 2021).

5.4.3. Budgeting and Monitoring Practices

Focusing now on convenient money management practices, the tendency to stick to a budget is not frequent in people who view money as sign of status; such individuals instead tend to buy the most expensive things to impress others and to show off their value, without paying attention to monitoring and planning (Rose & Orr, 2007; Tomek et al., 2013). Likewise, people with an anxious attitude toward money are less likely to practice sound financial behaviors, such as making plans, budgeting, monitoring, and having written goals (Hayhoe et al., 2012). Conversely, more retentive and distrustful inclinations positively relate to beneficial money management practices (Aydin & Akben Selcuk, 2019; Castro-González et al., 2020; Elgeka et al., 2018; Hayhoe et al., 2012; Spinella et al., 2007). Indeed, people with a money-security attitude are more capable of managing their resources than those who do not associate money

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with security (Furnham et al., 2022; Rose & Orr, 2007; von Stumm et al., 2013). Nevertheless, it is worth noting that there is a negative side of this attitude as well: frugal and retentive people tend to often experience negative worrisome moods when dealing with money (Rose & Orr, 2007), and security minded individuals were found to be more inclined to hoarding, another pathological money management practice (Furnham et al., 2015).

5.4.4. Investments and Donations

Regarding investments, individuals who value money as a symbol of achievement and esteem are more likely to prefer high-risk investments (Lippi et al., 2021; Shih & Ke, 2014). Furthermore, viewing money in a positive light, the degree of importance of money and the desire to be rich turned out to be important predictors of individuals' willingness to invest in stocks, impacting investors' happiness and behaviors (Keller & Siegrist, 2006b; Owusu, Anokye, et al., 2021; N. Tang et al., 2018). In contrast, money-related anxiety and viewing money as a source of security are more likely to drive investments in low-risk products (Lippi et al., 2021; Shih & Ke, 2014). Finally, a negative view of money as shameful and evil positively relates to higher donations, which, in contrast, are not frequent for people with a retentive inclination toward money nor for individuals who have a strong attachment to it (Franzen & Mader, 2022; Ruiz et al., 2017; Tomek et al., 2013; Wiepking & Breeze, 2012).

5.5. Financial, Job-related and Life Satisfaction

Several studies provided evidence supporting the role of money attitudes in financial satisfaction. A stronger symbolic money attitude leads to lower subjective financial satisfaction (Gasiorowska, 2015). In other words, people who view money as symbol of power and success but also of evil, are likely to report a lower level of financial happiness. In particular, individuals who value money as a symbol of power tend to feel higher financial hardship and stress and experience adverse financial events (Fenton-O'Creevy & Furnham, 2021; Lim et al., 2003; von Stumm et al., 2013). Conversely, a low level of anxiety related to money increases subjective wealth while decreasing the perception of financial hardship (Dowling et al., 2009; Gasiorowska, 2014; Lim & Teo, 1997). Likewise, a retentive attitude toward money is positively connected to financial well-being, being characterized by a careful propensity in spending and planning financial needs and by higher economic self-efficacy (Abdullah et al., 2019; Engelberg, 2007; Sabri & Zakaria, 2015). This is in line with another body of research exploring the relationship between life satisfaction and money attitudes, confirming a positive correlation between life satisfaction and stewardship propensity and a negative relationship between life satisfaction and symbolic and affective meanings of money (e.g., power, status and freedom) (Chitchai et al., 2020; Furnham & Murphy, 2019; Inseng, 2019; Lay & Furnham, 2019; Luna-Arocas & Tang, 2004; T. L.-P. Tang, 1992; T. L.-P. Tang et al., 2018a; T. L.-P. Tang, Kim, et al., 2002). Furthermore, a few studies found a connection between symbolic associations with money and the quality and the level of trust attributed by a client to his/her financial advisor (Lozza et al., 2022; Sholin et al., 2021).

Money attitudes were found to play a role even in the organizational and working context. Indeed, several dimensions of money attitude are linked to lower satisfaction in different working-related domains (Chitchai et al., 2020; T. L.-P. Tang, 1995, 2007; T. L.-P. Tang & Chiu, 2003; Thozhur et al., 2006). In particular, viewing money as evil is associated with lower satisfaction with many work-related elements, such as pay and co-workers (T. L.-P. Tang, 1992, 1995; T. L.-P. Tang, Luna-Arocas, et al., 2005; T. L.-P. Tang, Tang, et al., 2005; T. L.-P. Tang & Kim, 1999). In contrast, high stewardship inclination leads to higher pay satisfaction (e.g., Sardžoska & Tang, 2015; Tang et al., 2018).

6. Discussion

The present systematic scoping review involved the analysis of 226 articles dealing with the topic of money attitudes, conceived as the combination of beliefs, behavioral inclinations and emotions attributed to the concept of money. Particular attention was given to the methodological aspects, outlining the instruments that have been used and validated to measure the construct, and to the content analysis, concentrating on the correlates studied in the literature. The review was useful to map a quite broad and multi-faceted body of knowledge around the topic, making it possible to identify some gaps and to share future research directions and practical implications. Figure 3 shows the integrative framework of variables connected to money attitude and the consistency among the articles analyzed in this review. Figure 4 was developed following the Theory-Context-Characteristics-Methods (TCCM) framework, systematically presenting gaps in the literature and suggestions for future research (Paul & Criado, 2020). In the next sections, methodological implications will be first pointed out, followed by a discussion of fragmented results and understudied topics.

6.1. Methods: A Critical Overview and Future Directions

In this section we will critically discuss the scales presented in this review so to outline methodological directions, as well as suggestions for future research.

6.1.1. Existing Scales and Potential Contexts of Application

From a methodological perspective, several empirically and statistically validated scales exist, and some similarities can be found among them. First, almost all scales contain some factors that are more related to a pragmatic use of money (e.g., budgeting, spending or refraining from spending, saving, credit use) and others that are more linked to symbolic and non-economic dimensions (e.g., experiencing money as status and power or as a means to stave off anxiety and express love). Furthermore, some dimensions are commonly present, such as power, success/

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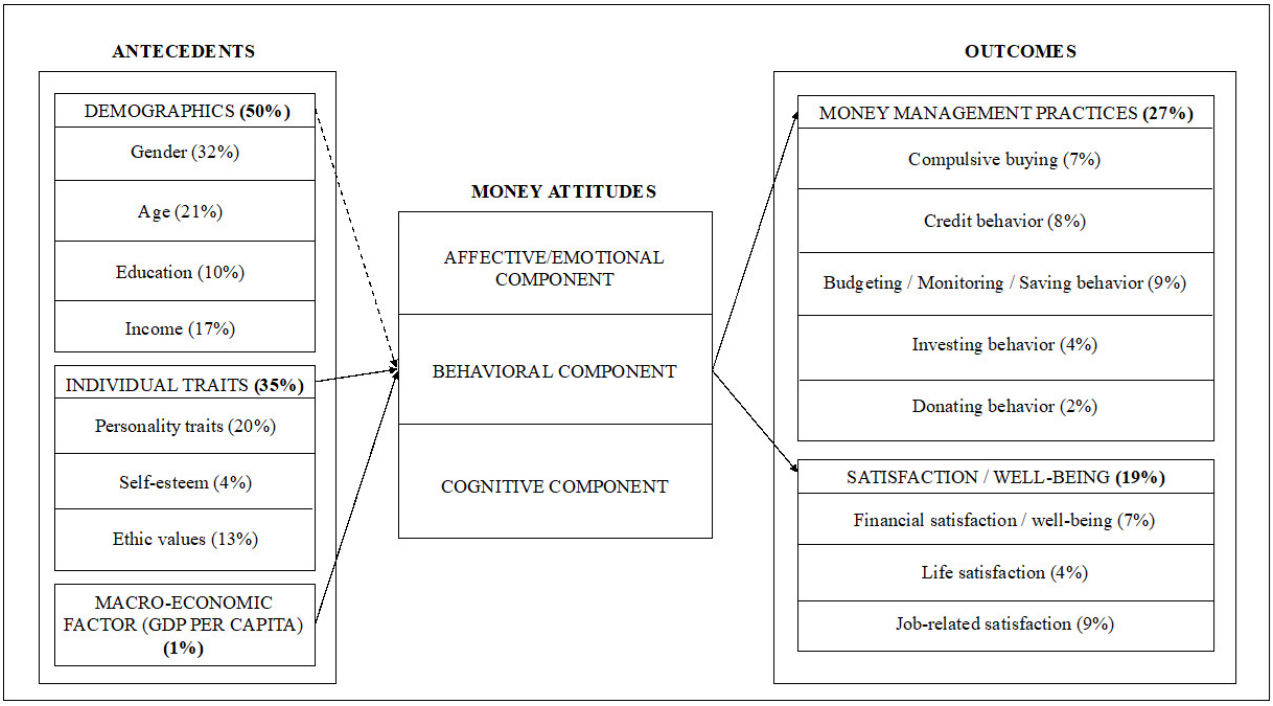

Figure 3. Integrative framework of the relationship between money attitudes and correlates: full lines indicate that most studies provided consistent results, while the dashed line suggests divergent results. In brackets the percentage of studies reporting information on the relationship between money attitudes and each variable is disclosed.

FUTURE RESEARCH AGENDA			
THEORY	**CHARACTERISTICS**	**CONTEXT**	**METHODS**
WHY INCONSISTENT RESULTS?	WHICH UNDER-STUDIED TOPICS?	WHERE TO CONDUCT FUTURE RESEARCH?	WHAT METHODOLOGICAL IMPLICATIONS?
1) Methodological hypothesis: partial overlapping among measurement scales	1) The relationship between money attitudes and unsound financial practices	1) Research in under-studied contexts (e.g., Africa, Central and South America)	1) Factors and specificities of scales might make them suitable for specific contexts
2) Societal hypothesis: role of social, cultural, economic, and historic factors	2) Foundational predictors of money attitudes	2) Adoption of a cross-cultural perspective	2) Alternative tools can be adopted (e.g., neuroscientific instruments, IAT)
3) Need for systematic reviews focusing on single correlates of money attitudes to understand reasons behind inconsistent results	3) Emotional dimension of money attitudes	3) Longitudinal research to support the study of causal relationship between money attitudes and behaviors	3) Qualitative methods could help better understanding predictors and emotional aspects of money
			4) Behavioral data (e.g., data from bank accounts) might corroborate the link between attitudes and behaviors

Figure 4. Future research directions (structured using TCCM framework)

achievement, and retention, although latent factors do not completely overlap. For instance, the anxiety factor is part of the MAS but not MBBS or MES, and MBBS contains factor security while it is absent in other scales. Hence, the fact that the scales and relative wording do not completely overlap might help explaining some divergent results (e.g., connection between money attitudes and demographics). Moreover, each scale has its own specificities and suggestions can be shared to support future researchers in their choice to select a scale to measure money attitudes (Table 3).

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Table 3. Commentary on validated scales and their context of application

Scale	Suggestions based on analysis
MAS (Yamauchi & Templer, 1982)	The MAS has been used in multiple countries and adapted in several studies, and it has been broadly employed especially in the financial behavioral domain; such characteristics make the scale applicable in several contexts.
MES & LOM (T. L.-P. Tang, 1992; T. L.-P. Tang & Chiu, 2003)	The MES and the LOM scales might be the most suitable instrument in studies about job-related variables and connection with the ethicality of money, given their use in the organizational context; both count on several versions and have been validated in numerous countries over the world.
MBBS (Furnham, 1984)	The MBBS considers dimensions not covered by other scales (i.e., inadequacy and effort/ability) and it has been employed in various contexts, to investigate demographics, consumer behaviors and values; however, it includes 60 different items, which might be a limitation.
Money Types Questionnaire (Furnham et al., 2012)	The Money Types Questionnaire is an original attempt to uncover the symbolic underpinnings of money, although some reliability issues should be taken into account.
Money Attitude Scale (Lim & Teo, 1997)	This scale is shorter than other measures and it is a combination of previous scales (i.e., MAS, MES, MBBS); however, it has been employed by less studies compared to other measures.
MAQ (Gasiorowska, 2008)	The MAQ operates an interesting distinction between the symbolic and the pragmatic approach to money, although it counts on a still restricted number of studies.
MMS (Rose & Orr, 2007)	The MMS is particularly suitable to explore the motivational aspects related to money and one of its strengths relies on the mixed-methods validation process.
KMSI (Klontz et al., 2011)	The KMSI provides an innovative perspective by defining the concept of "money script" and adopting a clinical perspective on the topic; in fact, it is specifically designed to study ineffective relationships with money in the context of financial therapy.
IMS (Franzen & Mader, 2022)	The IMS is a promising recent scale aimed to study not only the degree of importance attributed to money but also the dimension of material well-being.

6.1.2. Limitations of Existing Scales and Methodological Alternatives for Future Research

In terms of future directions and possible methodological improvements, it is worth noting that there is no scale which deeply investigates the emotional dimension of money. Indeed, although the affective component is frequently present in several instruments, items mostly are worded to reflect behaviors or beliefs. For instance, the factor 'good' in the MES includes items like "Money does not grow on trees" and "Money spent is money lost (wasted)" (T. L.-P. Tang, 1992); the MAS factor 'anxiety' includes items such as "It's hard for me to pass up a bargain" and "I am bothered when I have to pass up a sale" (Yamauchi & Templer, 1982); and in the Money Types Questionnaire, thought to measure the four "money-associated emotions", we find items such as "I have always been inspired by powerful tycoons", "If I had enough money, I would never work again", and "I often demonstrate my love to people by buying them things" (Furnham et al., 2012). What is missing from these scales is the "feeling" that individuals associate with money. In fairness, some studies included the pure emotional aspect, such as Wernimont and Fitzpatrick (1972), Prince (1993) and Newcomb & Rabow (1999), although such scales had not been included in many subsequent studies. Also, previous research mainly focused on a restricted number of negative feelings, such as anxiety, suspicion, and stress. Nevertheless, no validated scales are available to assess specifically the network of different emotions people feel while thinking about and dealing with money. Several studies proved the role of emotions, affects and moods in financial contexts (Guiso et al., 2008; Hirshleifer & Shumway, 2003; McNair et al., 2016). Indeed, hope, trust, faith, fear of shame and embarrassment, but also pride and optimism are just some of the emotions that come into play in the financial and economic fields (Merkle, 2007). Thus, future research could benefit from revisions to present measures, which mainly cover the cognitive, behavioral and symbolic aspects of money. Likewise, neuroscientific tools have proved to be effective in measuring emotional responses in different domains and might be an interesting direction to follow (McDonald, 2017). Furthermore, it is worth considering that other methods might offer additional insights on individuals' implicit attitudes to money (e.g., Implicit Association Test). Indeed, all existing scales take the form of self-report questionnaires, subject to social desirability effects and able to reflect only conscious self-evaluations. However, money involves a mix of meanings and symbolic associations of which people are not always aware. Additionally, given the transitory nature of emotions, longitudinal research across different settings and time periods could establish the causal relationship between such emotional dimensions of money and practical behavioral outcomes. Longitudinal studies might also be appropriate to understand whether people change their money attitudes over time and explore the variations during the life cycle, observing when the change happens, and

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what variables influence the change (e.g., variations in the income level).

Another methodological issue is that most of the papers present quantitative studies. In contrast, we believe that a qualitative approach could produce additional insights on the relationship between money attitudes and practical behaviors. Indeed, as highlighted by Hayhoe et al. (2012), people could follow diverse pathways in the construction of their approach to money, and divergent events might have been key to develop their relationship with financial resources, either in a positive and negative way. Questions like these might be more deeply investigated by means of interviews and focus groups rather than through surveys or experiments. Lastly, research on money attitude would also need to connect behavioral data (e.g., from bank accounts) to self-report data (Furnham & Okamura, 1999). Indeed, all validated scales rely on self-report answers, which are widely used in social sciences and provide fundamental insights on people' minds. However, the link between subjective data and behavioral information might further contribute to the understanding of the impact of money meanings and beliefs.

6.2. Money Attitudes and Correlates: An Integrative Framework and Research Directions

The analysis of correlates depicted a quite heterogeneous and complex frame of interrelations between money attitudes and demographics, economic factors, individual traits, financial practices, satisfaction, and contextual factors. In this section two possible explanations of the fragmentation of results are presented, concerning methodological and societal motives, and related future research directions. Next, some considerations about under-studied topics will be discussed, focusing on dysfunctional financial behaviors and predictors of money attitudes.

6.2.1. A Discussion on Fragmented Results

Starting with the fragmentation of results, it is worth considering that evidence for gender and age is quite consistent, outlining a distinction between the money-related perspectives adopted by men and women and by younger and older people. On the contrary, the role of education in the formation of money attitudes deserves more attention, to comprehend whether and how higher training on financial aspects might be beneficial to the development of an appropriate and balanced money mindset. Furthermore, also the connection between the degree of importance attributed to money and income is still to be further explored. Indeed, research suggests that people with lower income attribute either more or less importance to money than individuals from higher social classes. Some hypotheses can be elaborated to explain such inconsistent results, pertaining to methodological and/or societal motives. As concerns the methods, divergent findings in the relationship between demographics and money attitudes can be attributed to the limited overlap among scales. For instance, studies looking at educational differences used scales meant to highlight different aspects of money attitudes. Indeed, among the studies obtaining no correlation between money attitudes and education levels, Tang (1995) and Tang and Liu (2012) employed MES and LOM, mostly used to study the relationship between money and ethics; Furnham and Grover (2020) adopted a scale mostly composed by behavioral items; in Von Stumm and colleagues (2013) the Money Types Questionnaire was included, meant to investigate symbolic aspects of money although with some reliability issues. On the other hand, findings about a significant relationship between education and money attitudes employed measures addressing symbolic meanings of money and behavioral inclinations (Dogan & Torlak, 2014; Lay & Furnham, 2019; Roberts & Sepulveda, 1999). Therefore, it might be that divergent results are driven by methodological specificities of employed scales. This also relates to the complexity of the construct "money", which is imbued of strong and heterogeneous symbolic charges, which make it difficult to investigate and interpret.

As above-mentioned, a second possible reason behind fragmentation of results refers to social, cultural, economic, and historic factors. In fact, only 8% of studies included in this review involved a cross-cultural perspective: those provide more consistent results, suggesting a tendency in poorer countries to display more interest towards money compared to richer societies. It is feasible that people from different parts of the world value money differently, and thus cultural differences and macro-economic variables might lay behind such inconsistent results (as testified by the very limited number of studies investigating the connection between GDP and money attitudes – see section 5.3). Indeed, since money is a social object, laden with psychosocial, cultural and economic history, the attempt to identify "universal" correlates to attitudes toward money is by definition impossible: attitudes toward money will bind differently to the same variables in different socioeconomic and cultural contexts. Therefore, future cross-cultural research might be able to provide further insights on money attitudes in different cultural and socio-economic contexts.

To assess such hypotheses, further research should focus on single correlates of money attitudes (e.g., on money attitudes and age or on money attitudes and education levels). Indeed, the aim of the present study was to offer a first overview of the literature concerning money attitudes. Future studies should systematically investigate the connection between this construct and its correlates. For instance, gender differences in money attitudes and behaviors have been the subject matter on another systematic review, outlining precise possible interpretation behind fragmented findings (Sesini et al., revised and resubmitted).

6.2.2. Understudied Topics about Money Attitudes

To conclude this section, two additional contexts of investigation should be considered.

First, besides compulsive buying (investigated by only 7% of studies), the relationship between money attitudes and dysfunctional financial practices (e.g., hoarding, overspending, excessive deposits in bank accounts) is a rarely investigated but promising field, considering the connec-

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tion between money attitudes and financial behaviors. Indeed, it is true that holding a power-money mindset and being more subject to negative feelings of anxiety more often lead to unsound financial behaviors, such as indebtedness and compulsive buying (e.g., Fenton-O'Creevy & Furnham, 2020; Khare, 2014). However, evidence also adds that a downside exists for a security-money and retentive approach, which may result in excessive and irrational hoarding (Furnham et al., 2015). Thus, further research is necessary to shed light on the backfires of apparently positive attitudes towards money.

Second, it is clear that individual money meanings and beliefs permeate various aspects of people's lives, from financial well-being and behaviors to life and work satisfaction. Nonetheless, still little is known about the determinants of money attitudes. What determines the formation of specific money attitudes? What is the process behind the development of one's relationship with money? To respond to such questions, foundational predictors and events might be further explored to better comprehend the formation process of money attitudes (T. L.-P. Tang et al., 2004). In this context, qualitative research might be a powerful approach to investigate those aspects, enabling to go beyond the limits set by quantitative approaches and exploring the link with other constructs (e.g., implicit attitudes, social representations).

6.3. Practical Implications

In terms of implications, several suggestions can be derived from the present scoping review.

First, the results analyzed in the present review shed light on the importance of considering how money attitudes might lead to problematic financial behaviors. A higher awareness of such risk predictors should be raised so as to reinforce the development of more sustainable financial habits.

Second, research on money attitude provides useful insights in terms of segmentation of both customers and employees. Indeed, several papers highlighted the interconnection between money mindset and work-related factors, such as ethical behaviors, job commitment and pay satisfaction. A good understanding of such dispositional factors might allow employers and managers to make predictions concerning employees' behavior in organizations and understand the factors motivating employees, given that money can represent either a positive reinforcement or no reinforcement at all (Monteiro et al., 2015). Regarding the application in the consumer insight area, marketing practitioners could better segment markets and fine-tune products and services based on money attitudes, tailoring investment products and developing customized strategies (e.g., in fundraising campaigns, retention-minded people might be more responsive to messages framing donation as an investment rather than an expense, so as to minimize their perception of loss (Wiepking & Breeze, 2012)).

Another fundamental aspect to discuss is the promotion of consumer education. From an early age, people should be trained in proper financial planning and money management practices, as widely defended in the literature (e.g., Li et al., 2009; Pahlevan Sharif & Yeoh, 2018; Phau & Woo, 2008). Moreover, developing a secure and adaptive approach to money would be beneficial in the formation of financial habits, and increasing people's awareness of the assumptions behind their beliefs about money is an initial step towards the construction of more appropriate beliefs (Dowling et al., 2009). The design of financial training programs and public policies can support citizens' education, insisting on the need for carefully handling the household budget, managing emotions in financial contexts, and endorsing the appreciation of money as a tool to acquire basic needs and peacefulness rather than as an expression of power and status (Atalay & Meloy, 2006; Lemrová et al., 2014).

Lastly, given the role of money attitudes in determining financial satisfaction and well-being, understanding clients' money attitudes can be a critical step in building a more successful relationship with clients, since unconscious differences in money attitudes between advisor and client can develop potential conflict situations while the ability of an advisor to comprehend clients' symbolic meaning of money can enhance the quality of the relationship (Lozza et al., 2022; Oleson, 2004; Sholin et al., 2021).

7. Limitations

Our systematic scoping review is not without limitations. First, although we developed a search string based on past literature around money attitudes and we relied on four different databases, it is possible that some pertinent studies were not included. Moreover, we decided to focus on individuals rather than couples and households, since the latter involves complex and multifaceted dynamics which would require special attention to address. Furthermore, only studies published in English were analyzed, excluding research available in other languages.

8. Conclusion

Money is a powerful and emotionally charged element that affects people's daily lives at multiple levels. As it turned out in the present review, it is a profoundly difficult concept to study. The current study aimed to systematically review the scientific knowledge around the construct of money attitudes. Specifically, our aim was to cover both a methodological perspective, outlining how attitude to money has been measured, and the analysis of contents, pinpointing the connections between money-related beliefs, opinions and feelings and a number of variables (i.e., demographics, personality traits, values, macro-economic factors, financial practices, personal satisfaction and job-related factors). Through a comprehensive review of 226 scientific papers, the psychology of money attitudes was confirmed to be a rich and fertile research field, demonstrating the key function of a psychological approach to money in many fields of application. The review outlines the existence of several validated scales to measure money attitudes, partially overlapping and with distinctive features making each one of them unique. Therefore, we propose possible elective contexts of applications for each

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scale. We also outline several directions for future research, suggesting the need to study emotional aspects of money, predictors of money attitudes and unsound financial practices, and methodological advancements (e.g., neuroscientific tools, IAT, qualitative approach, longitudinal studies). Furthermore, we develop hypotheses behind inconsistencies in evidence to be tested in future research. Fragmented results are indeed found in the interrelations between money attitudes and its correlates, which is a fertile ground of study for future focused reviews. Finally, we propose suggestions to support marketing practitioners, financial advisors, policymakers, and organizational contexts.

Author Contributions

All authors made substantial contributions to the conception of the work and to the design of the research. GS performed the formal analysis, data curation and wrote the original draft. EL supervised the overall research, contributed to the analysis, revised the draft critically, and provided final approval of the version to be published. All authors agreed to be named on the author list and approved the full author list.

Competing Interests

None.

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