Initial Codes for SES Quotes

Three dimensions:

1. How SES theoretically defined
   * Categories:
     + “None given” = didn’t provide definition
     + Remainder will be inferred from the data (no categories to start with)
   * Categories inferred from data:
     + **Note:** Multiple codes may apply to a single definition. These codes reflect themes present in the definitions, rather than all-encompassing groupings of definitions. Occasionally, definitions include multiple themes, so relaxing the one-code-per-definition rule was necessary.
     + “Position in hierarchy” = Defines SES as an individual’s position within a societal hierarchy
       - e.g., “Childhood SES reflects the social standing of individuals or groups in the social hierarchy during childhood”
     + “Proxy for causal mechanisms” = Defines SES as a measure that approximates/collects actual causes of some outcome
       - e.g., “As Kirby and Hogan (2008) argue, SES is, at best, a proxy measure that in fact represents a spectrum of factors which may or may not have causal effects on reading skills or prerequisite skills.”
     + “Result of inequality” = Define SES as the result of inequality
       - e.g., “This wealth inequality yields differences in people’s relative social ranks that can be referred to by either social class or socioeconomic status (SES)”
     + “Material resources” = Define SES as consisting of, in part or whole, possession of material resources (e.g., income, wealth, household objects)
       - e.g., “SES indicates the tangible financial resources one possesses to buffer the stress.”
     + “Perception of position in hierarchy” = Define SES as how an individual perceives their location within a societal hierarchy
       - e.g., “Subjective socioeconomic status (SSS) is defined as a person’s subjective perceptions of their rank, relative to others, in the socioeconomic hierarchy”
     + “System of hierarchy” = Define SES as a system of hierarchy
       - e.g., “One of the most prominent systems of hierarchy is socioeconomic status (SES), through which societies rank individuals based on their access to both symbolic and tangible resources such as wealth, education, and prestige”
     + “Defined by indicators” = Define SES as consisting of one or more of its indicators
       - e.g., “class is usually defined by parental educational attainment”

Protocol for writing codes:

* No abbreviations or conjunctions other than SES (i.e., write “did not”, not “don’t”)
* Capitalize the first letter of each code
* Use spaces to separate words
* Separate codes with a hyphen (“-”)

1. How SES operationalized
   * Categories:
     + **Note**: These refer to how *SES* was operationalized, and NOT to how indicators of SES were (e.g., using PCA or a sum score for family assets does *not* count as dimension reduction, but using PCA or a sum score for family assets and income does count as dimension reduction)
     + “None given” = didn’t say
     + “Did not study SES” = particular study didn’t study SES
     + “Single indicator” = used only one indicator
     + “Multiple single indicators” = used more than one single indicator
     + “Dimension reduction” = used process to reduce multiple single indicators into fewer variables (e.g., from K=3 to K=2 or 1, where K is the number of variables referred to as SES)
       - + “Formative” = used a dimension reduction technique wherein the indicators define the latent variable (e.g., PCA, WLS)
         * “PCA” = principal components analysis
         * “PLS” = partial least squares
       - + “Reflective: = used a dimension reduction technique wherein the latent variable defines (gives rise to) the indicators (e.g., CFA, EFA)
         * “CFA” = confirmatory factor analysis
         * “EFA” = exploratory factor analysis
       - + “Other composite” = used a modeling strategy that doesn’t fall neatly into either of the above (e.g., equal weights could be either reflective or formative, Hollingshead, Duncan SEI)
         * “Standardized mean” = all indicators standardized and average of the standardized indicators used as measure
         * “Quintiles” = split continuous composite into five groups
         * “Trichotomized” = split continuous composite into three groups
         * “Normalized mean” = all indicators changed to same scale and average of normalized indicators used as measure
         * “Logarithm” = logarithm of indicators used
         * “Sum” = sum of indicators
         * “Mean” = mean of indicators
         * “Standardized sum” = all indicators standardized and sum of the standardized indicators used as measure
         * “Dichotomized” = split continuous composite into two groups
     + Remainder will be inferred from the data (no categories to start with)
     + Modifications to indicators:
       - “Dichotomized” = made an otherwise non-binary indicator binary
     + “Mixed” = mix of single indicator approaches and dimension reduction approaches

Protocol for writing codes:

* No abbreviations or conjunctions other than SES (i.e., write “did not”, not “don’t”)
* Capitalize the first letter of each code
* Use spaces to separate words
* Elaborating operationalizations:
  + In addition to recording the type of operationalization (e.g., “Multiple single indicators”), need to record content of operationalization (e.g., income, education)
  + Separate type from content using an underscore (i.e., “Single indicator\_income”)
  + If writing a list of content, separate elements of list using hyphens (i.e., “Multiple single indicators\_income-education-occupational prestige”)
    - Within an element of a list, separate words using spaces (e.g., “occupational prestige”, not “occupationalPrestige” or something else)
  + Modifications are listed in brackets ([]) after the indicator to which they apply and separated by a space from the indicator (e.g., “income [dichotomized]”)
* Elaborating “Dimension reduction”:
  + Place type of dimension reduction in brackets ([]) next to after “Dimension reduction” (e.g., “Dimension reduction [Reflective]\_income-education”)
  + Specific method of dimension reduction should follow general type, separated by a period (e.g., “Dimension reduction [Reflective.CFA]\_income-education-employment”)
  + Elaborating “Other composite”:
    - * For non-standard approaches (e.g., not using name-brand indices like Hollingshead or Duncan), indicate the modeling strategy used after “Other composite”, separated by a period (e.g., “Dimension reduction [Other composite.mean]\_income-education”)
      * Each period represents a separate elaboration approach
* Elaborating “Mixed”:
  + If dimension reduction involves multiple smaller indicators, give a label to the latent variable (e.g., “subjective SES composite”) and indicate indicators in brackets, separated by commas (e.g., “subjective SES composite [subjective MacArthur ladder, perceived financial difficulties]”)
  + If method for combination given (e.g., mean, sum, etc.), write it after the indicators, separated by a period (e.g., “objective SES composite [income, education.Standardized mean]

1. Reason for operationalization
   * Categories:
     + **Note:** These refer to *both* how indicators were chosen and how a modeling procedure was chosen.
     + **Note:** These refer to how *SES* was operationalized, and NOT to how indicators of SES were (e.g., using PCA or a sum score for family assets because it is recommended by other researchers does *not* count as “Prior work”, but using PCA or a sum score for family assets and income to measure SES because other researchers recommend it does count as “Prior work”)
     + “None given” = didn’t say
     + “Did not study SES” = particular study didn’t study SES
     + Remainder will be inferred from the data (no categories to start with)
       - But some ideas from Kachmar et al. (2019):
         * “Evidence based” = using prior knowledge of relation between particular operationalization and particular outcome or related outcomes

e.g., “A major review has suggested its [two factor Hollingshead] consistency in pre- dicting psychotherapy outcomes”

e.g., “Meta- analyses show that the same factors traditionally appear to predict poor treatment outcome and high attrition from trials (Lundahl et al., 2006; Reyno & McGrath, 2006). Following this literature, we examined two sets of potential moderators of outcome, assessed at age 2. Family risk factors included mother a single parent, mother a teen at the birth of her first child, low maternal educational level, and maternal alcohol or drug problem.”

e.g., “In addition, this SES index is more linked to obesity than family income”

e.g., “Although household income is a relatively crude measure of SES,compared with measures involving multiple indicators (e.g., education andoccupation), it has nevertheless been shown to predict important outcomes(for a review, see Krieger, Williams, & Moss, 1997).”

e.g., “The importance of social class rank perceptions is evident in health psychology research: Relatively lower-class individuals tend to show poorer health and well-being trajectories than do their upper-class counterparts (Adler et al., 1994). Moreover, when researchers measure social class using both objective resource indicators (e.g., income) and subjective perceptions of rank— assessed by ranking oneself on a 10-rung ladder representing socioeconomic status in society (Adler, Epel, Castellazzo, & Ick- ovics, 2000)—the subjective perceptions emerge as the consis- tently stronger predictor of patterns of both self-rated health (e.g., “In general, my health is good”; Adler et al., 2000) and mortality (Kopp, Skrabski, Réthelyi, Kawachi, & Adler, 2004).”

e.g., "Because Curhan et al. (2014) found that educational attainment (an objec- tive measure) and subjective social status (a subjective measure) work differently across cultures to predict well-being (see also Park et al., 2013), we included both objective and a subjective measures of SES to avoid being biased toward either culture."

e.g., “Although social class has been measured using both income and education levels (Anderson, Kraus, Galinsky, & Keltner, 2012a), to the extent that differences in unethical behavior are ultimately driven by under- lying differences in power, which is control over resources (Ga- linsky, Rucker, & Magee, 2015; Magee & Galinsky, 2008), we propose that income will predict unethical behavior more strongly than will education."

* + - * + “Prior work” = prior research used same operationalization, but no stated relevance of operationalization to current study

e.g., "Hollingshead’s operationalization of socioeconomic status using four factors is the most widely used and validated measure of socioeconomic status in psychological research”

e.g., “In order to create an index ofsocioeconomic risk, we followed previous guidelines (Conger etal., 2010;Dearing, McCartney, & Taylor, 2001) and created acomposite variable comprised of a family income-to-needs ratio,maternal education, and maternal report of level of chaos in theneighborhood”

e.g., “Socio- economic position is a component of social class (Adler et al., 2000; Kraus et al., 2009), and our manipulation of perceptions of relative socioeconomic standing is conceptually similar to manip- ulations of cultural identity constructs (e.g., individualism– collectivism) used in previous research (e.g., Oyserman & Lee, 2008).”

* + - * + “Undetailed reason” = stated a rationale without justifying details or criterion [I don’t know what this means]
    - From data (indicators):
      * “Parallel forms” = Operationalization of SES correlates with, or works similarly to, other possible operationalizations of SES
        + e.g., “The measure [Hollingshead’s index] correlates highly with other indices of social status”
        + e.g., “Previous research shows that measures of subjective SES predict patterns in health (e.g., Adler et al., 2000) and explanations of social events (Kraus et al., 2009) consistent with measures of social class that index the construct by assessing wealth and educational attainment.”
        + e.g., “"Pilot data within a nationally collected online community sample (n 81), demonstrated this particular measure of social class was correlated with household income, a more objective measure of the construct, r .51, p .001.”
      * “Content validity” = Operationalization of SES intended to capture multiple different aspects of SES
        + e.g., “In this study, using all three indicators serves the purpose of attempting to address discrepancies in the literature on SES and treatment outcome, because most studies have used only one of these three indicators, with varying results"
        + e.g., “The measures one chooses to examine SES reflect different underlying conceptual- izations that may be associated with different pathways linking SES to children’s health (Bradley & Corwyn, 2002). Thus, the use of multiple indices of SES is i"mperative for delineating relations between SES and child health.”
        + e.g., “Finally, Brown and colleagues (1996) suggested that social class is a psychological phenomenon given its relational nature (e.g., a person identifies with a group of people) and that each person has a social class identity. Given the psychological basis of social class identity, Brown and colleagues further argued that indices of social class that simply assess income, educational attainment, and occupational prestige miss this identity dimension of social class and thus are incomplete measures of social class.”
        + e.g., “Parents’ level of educational attainment is commonly used as a proxy for students’ social class background for the following reasons: (a) The social class status of one’s family of origin has a lasting effect on the social class identification of adults (Jackman & Jackman, 1983), (b) attaining a 4-year degree is important for finding a high-status, professional job and gives one substantial advantages in lifetime earnings (Day & Newburger, 2002; Pascarella & Terenzini, 1991)”
        + e.g., “Study 3 showed that low subjective SES causally increasesaggression. Although the manipulation suggests that we success-fully induced differences in the experience of social status, somereaders may be concerned that our manipulation in Study 3 primesmaterialistic desires or aspirations. Hence, in Study 4, we em-ployed a different approach to manipulate subjective SES. Con-cretely, we adapted a procedure byCallan, Shead, and Olson(2011)(see alsoBrown-Iannuzzi, Lundberg, Kay, & Payne, 2015;Callan, Ellard, Shead, & Hodgins, 2008). After answering a seriesof questions, participants were randomly assigned to either learnthat they have a higher SES than similar others, an SES in theaverage range of the socioeconomic status of similar others, or alower SES than similar others.”
      * “Data availability” = Operationalization chosen, or not chosen, because of high, or low, availability for many participants
        + e.g., “An occupational measure of SES [at 22 years] was not used at that age because only about half of the subjects had completed their vocational studies by that age and had moved into working life”
      * “Population appropriate” = Operationalization of SES particularly good for proxying SES within a particular population
        + e.g., “Our focus on family structural assets as a culturally ap-propriate measure of disadvantage may be a better proxy of socioeconomic risks that undermine maternal opportunities to de-velop verbal skills than of acute stressors known to affect maternalfluid intelligence and executive function skills.”
        + e.g., “In the Finnish schooling system, completing high school is the most prominent divisor as regards later educational attainment, and a prerequisite for practically all university studies.”
        + e.g., “This is also considered best for use with members of racial/ethnic minority groups, who do not receive the same financial gains for equivalent years of education as do Whites”
        + e.g., "Demographic data revealed that all racial/ethnic groups had approximately equivalent parental incomes with the exception of Latinos, who as a group had the lowest parental incomes. Consistent with this, research has shown that Latinos are typically viewed by Whites as poor (Goodwin & Fiske, 1996) and low in social status (Jost, Pelham, & Carvallo, 2002). Therefore,we reasoned that White and Latino students would be expected byparticipants to differ socioeconomically. Specifically, Latino stu-dents would be expected to come from low-socioeconomic status(SES) families (based on stereotypes and demographic informa-tion), White students would be expected to come from high-SESfamilies, and the reverse would be unexpected.”
        + e.g., "Because Curhan et al. (2014) found that educational attainment (an objec- tive measure) and subjective social status (a subjective measure) work differently across cultures to predict well-being (see also Park et al., 2013), we included both objective and a subjective measures of SES to avoid being biased toward either culture."
      * “Dataset provided” = Operationalization of SES was predetermined and given in the dataset used in the study
        + e.g., “The ECLS-K data set provides a continuous SES variable,which was utilized for our analyses.”
      * “Temporal stability” = Operationalization of SES chosen because of temporal stability (or instability) of indicators
        + e.g., “SES variables wereselected based on their relative stability overtime and specific relation to health disparityintervention research (Shavers, 2007).”
      * “Presumed relation” = Operationalization of SES chosen because indicators thought to relate to outcome
        + e.g., “The relatively stable contextual factors of family-of-origin SES (education and occupation) and income were tested because they were hypothesized to relate to ongoing developmental contextual risk for the youth.”
        + e.g., "Although similar patterns were observed across all the indices of SES, cultural differences were largest for education. Among indi- ces of SES, educational attainment has often been suggested to be the best indicator because it predicts future job characteristics and income and is most closely associated with values and psycholog- ical tendencies (Stephens, Fryberg, & Markus, 2012). Education likely plays the key role in instilling culturally sanctioned tasks associated with SES."
        + e.g., “Parents’ level of educational attainment is commonly used as a proxy for students’ social class background for the following reasons: (a) The social class status of one’s family of origin has a lasting effect on the social class identification of adults (Jackman & Jackman, 1983), (b) attaining a 4-year degree is important for finding a high-status, professional job and gives one substantial advantages in lifetime earnings (Day & Newburger, 2002; Pascarella & Terenzini, 1991), and (c) among the three commonly used indicators of social class status (education, income, occupation), education is the best predictor of a wide range of beliefs (Davis, 1994) and is the most closely associated with lifestyle, behavior, and psychological functioning (Kohn & Schooler, 1983; Matthews, Kelsey, Meilahn, Kuller, & Wing, 1989; Snibbe & Markus, 2005)." (p. 1179); "Specifically, middle-class contexts are characterized by access to economic capital, geographic mobility, and ample opportunities for choice, control, and influence (Kohn, 1969; Patillo-McCoy, 1999). These material realities also promote socialization practices that convey to children a sense of self-importance and individual entitlement (Miller, Cho, & Bracey, 2005)... Specifically, working-class contexts are characterized by limited economic cap- ital, environmental constraints and uncertainty, and few opportu- nities for choice, control, and influence (Chen & Matthews, 2001; Lachman & Weaver, 1998; Reay, Davies, David, & Ball, 2001)... These working-class realities often promote socialization practices that encourage children to recognize their place in the social hierarchy, to follow the rules and social norms, and to be responsive to others’ needs (Fiske & Markus, in press; Kohn, 1969; Kusserow, 1999; Lamont, 2000; Piff, Kraus, Coˆte ́, Cheng, & Keltner, 2010; Stephens et al., 2011)."
    - From data (modeling procedures):
      * “Sample size” = Operationalization [modeling procedure] of SES particularly appropriate for the sample size of the study
        + e.g., “Partial least squares modeling isideal for examining all of the possible associations between thevariables of interest as it can be used with small data sets and isrecommended for exploratory purposes, as it does not have thestrict measurement and distributional requirements of other mod-eling procedure”
      * “Noninterchangeable” = Operationalization [modeling procedure] of SES designed to address non-equivalence of indicators of SES
        + e.g., “Though related, indicators of SES are notinterchangeable, as each may affect disease risk in different ways(Braveman et al., 2005), and therefore may have different inter-vention implications.”
      * “Reduce measurement error” = Operationalization of SES intended to reduce measurement error that impacts alternative operationalizations [modeling procedures]
        + e.g., “SEM allows the simultaneous test of a hypothesized structure of relationships among variables of interest as well an inclusive test of the measurement model of the latent or unobserved variables (i.e., SES, mental illness). When this is not done, measurement error in the composite variables is ignored.”
      * “Prior work” = prior research used same operationalization [modeling procedure], but no stated relevance of operationalization to current study
        + e.g., “On the basis of previousresearch with children with a multiple risk model (e.g., Burchinal,Roberts, Hooper, & Zeisel, 2000), one point was given for each ofthe following risks: family income was below federal povertyguidelines adjusted for family size, both parents were unemployed,the mother was single, the mother gave birth to the target child asa teen, the family had four or more dependent children, the motherdid not complete high school, and the father did not complete highschool. This index could range from 0 to 7, with higher scoresreflecting more SES risks. Cronbach’s alpha was .75”
        + e.g., "Similar risk composites have previously been used in studies with low-income, minority samples (e.g., Li-Grining, 2007)."
      * “Correlated” = Modeling procedure chosen because indicators of SES were correlated (or not)
        + e.g., “Family income and SES weresignificantly associated (r.41,p.01) and therefore were combined bytaking the mean of their standardized scores to arrive at a global measureof SES/income over Study Years 3, 5, and 7.”
        + e.g., “Cronbach’s alpha was .75. Family SES risks at all other time points were highly correlated with NICU SES risks; we used the NICU SES risk index to minimize missing data”
        + e.g., “Because past and current income were significantly correlated, r(89) .65, p .01, we created a composite measure of income by taking the mean of these two indicators”
        + e.g., “A student’s mother’s and father’s educational level was coded on a four-point scale (1 – elementary, 2 – vocational, 3 – high school, 4 – college/university) and then summed. The reliability of this scale was satisfactory ( .73).” (p.157)
      * “Distinct pathways” = Modeling procedure chosen because indicators SES thought to reflect different mechanisms through which SES relates to the outcome
        + e.g., “One of the several pathways through which SES ultimately affects health outcomes is through education’s effect on ability to understand and act upon health communications (Link & Phelan, 1995; Smith et al., 2012; Viswanath et al., 2006; Viswanath & Finnegan, 1996). Second, there are a number of plausible ways in which SES might shift individuals’ beliefs about cancer and screening. Moreover, lower SES is associated with poorer knowledge about screening procedures (King-Marshall et al., 2016). In addition, SES may affect perceptions of barriers to screening and efficacy for screening since factors such as cost, insurance coverage, and ability to take time off work can serve as both real and perceived barriers to screening uptake (James et al., 2008).”
        + e.g., "However, SES can be indexed by a wide range of variables, including material wealth and occupational conditions. Because World Values Survey (WVS) offered these SES indices, we ex- plored how the patterns of the results might differ across different indices of SES by testing multiple facets of SES in Study 2a."
      * “Maximize prediction” = Modeling procedure chosen because thought to maximize predictive ability for outcome
        + e.g., "It is widely recognized that risk factors such as poverty, sin- gle parenthood, low parental education, and unemployment often occur together (Masten et al., 1995) and are generally more predictive when examined cumulatively (Burchinal, Vernon-Feagans, Cox, & Key Family Life Project Investigators, 2008)."
      * “Unidimensional” = Modeling procedure chosen because obtained evidence that indicators conformed to unidimensional factor model
        + e.g., “principal-axis factor analysis using varimax rotation of the five social class items yielded a single factor with an eigenvalue above 1.0 (2.99) that accounted for 60% of the variance. All factor loadings exceeded .58. Moreover, the measures for childhood social class (M = 4.66, SD = 1.39, 𝛼 = .77) and current social class (M = 4.61, SD = 1.58, 𝛼 = .77) were highly correlated, r(112) = .58, p < .01, and the five items demonstrated high internal consistency (𝛼 = .82). Thus, we formed a composite measure by averaging the five childhood and current social class items (M = 4.64, SD = 1.29)." (p. 957)

Protocol for writing codes:

* No abbreviations or conjunctions other than SES (i.e., write “did not”, not “don’t”)
* Capitalize the first letter of each code
* Use spaces to separate words
* Structure rules:
  + Each code contains two halves, separated by an underscore (“\_”):
    - Half 1 = Reason for indicators
    - Half 2 = Reason for modeling procedure
  + Within each half, different reasons are separated by a hyphen (“-”)
    - e.g., “Prior work-Parallel forms\_None given” indicates that a paper cited prior work using the same indicators and that the indicators correlate with other operationalizations of SES but provided no reason for the modeling procedure used
    - e.g., “None given\_None given” indicates that a paper gave no reasons for its choice of indicators or modeling procedure