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Toward a Better Understanding of Self-Construal Theory: An Agency View of the Processes
of Self-Construal

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Abstract

This article offers a novel perspective on self-construal theory. Self-construal concerns how individuals understand who they are in relation to the broad set of cultural influences in which they live. We look at the nature and antecedents of self-construal, and characterize it as a self-process, rather than self-knowledge. Integrating work from the literature on social and evolutionary psychology, and philosophy, we suggest that the differences between independent and interdependent self-construal are best understood from a self-agency perspective. This concerns how people assess whether they are the causes of an action and, if so, whether their causal role depends on other people. We introduce and discuss the roles of three different modalities of agency involved in agency assessment: implicit (sensorimotor), intermediate (self-related affordances), and explicit (reflective) self-agency. We offer a conceptual model on how self-agency relates to power, evolutionary motivations and to social and cultural affordances, in the formation of, and interaction with, different types of dominant independent and interdependent self-construals.

Keywords: self-construal, self-agency, power, social and cultural affordances, social environment, evolutionary psychology

In 1991, Markus and Kitayama published an article that focused on a fundamental question of psychology—namely, the relationship between the individual self and the social and cultural setting. This became one of the most influential articles of the decade, referred to by Devine and Brodish (2003, p. 200) as a ‘modern classic in social psychology’; it is the fourth (see Footnote 1) most cited *Psychological Review* paper in the web of science (Anderson, 2011). Self-construal theory’s original framing—the first systematic social psychological attempt to map the relationship between culture and the self—remains powerfully insightful today.

Self-construal theory introduced a new way to understand the individual consequences of cross-cultural differences, in terms of their implications for the construal of the self. Relating the debates on Eastern versus Western values to the individual level, Markus and Kitayama (1991) were the first to attempt to fully conceptualize the consequences of culture on self-perception, relating it to the central social psychological question of the role of others in the formation of the self-concept. Markus and Kitayama outlined the ways in which the broad cultural differences between (for example) the USA and Eastern Asia (e.g., in terms of core values such as individualism and collectivism) were related to different ways in which the sense of self has expected, actual and ideal qualities of independence and interdependence. Independence involves the self being separate from context, understood as an autonomous agent who strives for uniqueness. Interdependence, by contrast, involves the self being intertwined with social context, understood as an agent who depends on others and strives for harmony. In addition to its theoretical impact, the theory has been applied in various fields, including personality (e.g., Ashton-James, Van Baaren, Chartrand, Decety, & Karremans, 2007; Baldwin & Sinclair, 1996), organizational psychology (e.g., Bond, 1996; Brockner, De Cremer, van den Bos, & Chen, 2005; Goncalo & Staw, 2006), and consumer psychology (e.g., Ahluwalia, 2008; Zhang & Shrum, 2009; Zhu

& Meyers-Levy, 2009).

Despite the key role of self-construal in understanding the outcomes of self-related phenomena, including self-other related cognition, motivation, emotion, decision making, and information processing (Markus & Kitayama, 1991; van Baaren, Maddux, Chartrand, De Bouter, & van Knippenberg, 2003), overall understanding of self-construal itself remains limited. Partly for this reason, the theory has been subject to various critiques, centered on three issues: apparent lack of theoretical clarity, challenging empirical findings, and methodological issues regarding the measurement of self-construal.

The starting point for our consideration is a question that pertains to self-construal but has not yet, to our knowledge, been addressed: What is the purpose of self-construal? In other words, why do people construe their sense of self in a way that conforms to the difference between independence and interdependence? Throughout our discussion, we retain and further develop Markus and Kitayama's (1991) fundamental insight—self-construal orients on the independence and interdependence of self-perception. We however focus on which aspects of mind and sociality might cause self-construal to take this form.

Aligned with this is a second question about the nature of self-construal. Prior research suggests that the definition of self-construal is elusive (Matsumoto, 1999; Spiro, 1993). For example, is self-construal a kind of self-knowledge, a kind of self-process, or both? Our second aim is to better understand the nature of self-construal; in doing so, we connect what it is, in social psychological terms, to why it arises in this form. To unfold these questions empirically, we address a third question that has also received relatively little attention in the field: What are the antecedents of self-construal? Although we know what self-construal affects, we know little about what self-construal is affected by—for example, what leads people to lean toward an independent or an interdependent self-construal.

We begin by introducing a novel Agency View of self-construal, detailing the role of

different modalities of self-agency, social and cultural affordances and motivations in the processes of the self. We then outline why and how self-construal is grounded in the role of self-agency by showing how different situations and motivations can shape self-agency assessment and result in different self-construals. Finally, we discuss the implications of the Agency View for understanding current debates in the field, the role of culture and methodological issues in self-construal research.

We suggest that answers to these questions can help improving current understanding of self-construal theory, and in doing so, reconcile the apparent contradictory empirical findings and lessen the main theoretical and methodological criticisms of the theory. To reframe the concept, we pay attention to the interaction between self and culture as expressed in situated action, in the spirit of Markus and Kitayama's (1991) original and subsequent formulations.

Self, Agency, and Social and Cultural Affordances

The Agency View of self-construal echoes the distinction between self-processes and self-knowledge (e.g., Kühnen, Hannover, & Schubert, 2001; Mead, 1934), which are qualitatively different in terms of awareness or conscious experience. Self-processes include 'I' as a subject of consciousness, whereas self-knowledge includes 'me' as an object of consciousness: The former comprises an 'internal' and active sense of identity and the latter a more 'external', reflective and passive judgment or representation of that identity. Previous research has minimized the importance of this distinction in self-construal research, partly because, as suggested by Markus and Kitayama (1991, 2010) process and knowledge in self-construal are mutually influencing.

A way to address this question is to understand how people ascribe self-agency — how people experience the sense that an action is theirs, that 'I' is the cause of that action (Decety & Sommerville, 2003). We first identify key aspects of this competence and then

relate it to two additional issues that aid in the reframing of self-construal: social and cultural affordances and evolved, adaptive motivations. We suggest that self-construal involves a way of ascribing self-agency that uses particular social and cultural affordances of the self that are most salient to actions closely derived from evolved, adaptive motivations.

Self-Agency

The question of self-reference – especially in the context of language and self-awareness – humans' capacity for self-introspection - has been a topic of interest to philosophers, both in the traditional (e.g. Descartes, 1637/1965; Locke, 1689/1975) and modern philosophy literature (e.g. Shoemaker, 1968). As philosophers Bayne (2008), Gallagher (2000, 2007), and Pacherie (2008) note, the awareness of self-agency is psychologically complex, even if it feels subjectively indivisible. Social psychologists, on the other hand, have focused on characterizing the relations between the personal dimensions of the self (e.g. individual personality, Costa & McCrae, 1988) from the social elements of the self (e.g. social identity, Tajfel & Turner, 1979, 1986). Findings from psychology and neuropsychology (e.g., Balconi, 2010; David, Newen, & Vogeley, 2008; Knoblich & Repp, 2009; Sato, 2009; Synofzik, Vosgerau, & Newen, 2008) and philosophy (e.g., Gallagher, 2000, 2007; Pacherie, 2008) suggests that the sense of self-agency may have three 'levels' or modalities, each supported by its own type of process. The first - we term this implicit self-agency - is an implicit experience or feeling, where prereflective processes draw on efferent feedback from sensorimotor states related to bodily movements (e.g., Haggard, Clark, & Kalogeras, 2002) and on perceptual information of (changes in) the state of world affairs (e.g., Bayne & Pacherie, 2007; Fournieret & Jeannerod, 1998; Gallagher, 2007). This indicates that 'I' was the cause of the action but does not offer an explanation of what the action might be, the reasons for performing it, or what others might think of it. Such matters are the provinces of another modality - we will call this explicit self-agency. This is a largely

explicit or reflective judgment of agency, which minimally indicates an awareness of or explicit attribution to who caused an action to occur; this may extend to complex explanations of the action in terms of personal short- or long-term intentions, narratives of the self, culturally laden beliefs about action and behavior, and so on. Indeed, higher-order attribution or judgment of self-agency may take as inputs the results of the lower-order implicit sense of self-agency (e.g., Synofzik et al., 2008; for related views, see Lambie & Marcel, 2002; Legrand & Ruby, 2009). Moreover, Northoff, Qin, and Feinberg (2011) suggest that between the sensorimotor-based prereflective sense of self and the more obviously cognitive or reflective sense of self, there may also be *self-related* processing, which does not entail the form of conscious self-awareness or judgment involved in self-referential, reflective processing. Such self-agency – which we call intermediate self-agency – may involve composing complex plans and actions from less complex ones (knowing that a complex action can be performed depends on prior knowledge of self-agency for some or all of its component actions) but does not, in itself, require conscious awareness of that agency.

Thus, there may be three modalities of self-agency awareness: the implicit, lower modality of the sense of self-agency; the intermediate modality of self-related information about self-agency, and the explicit, higher modality of self-agency judgment (see Footnote 2). Self-construal, we suggest, takes the assessment of self-agency as input and elaborates it in terms of information about the individual's access to power (as the cultural elaboration of agency), and terms of broader cultural norms for action (see Figure 1).

A variety of process models for the sense of self-agency has been offered (for reviews, see David et al., 2008; Pacherie, 2008; Pockett, Banks, & Gallagher, 2006; Roessler & Eilan, 2003). Our conceptualization of self-construal draws on two of their common qualities. First, determining self-agency involves implicitly or explicitly assessing the congruence between information about anticipated outcomes/events and about actual

outcomes/situations. A sense of agency can be inferred from congruence between an action and an actually preexisting thought or intention, or a retrospectively confabulated ‘memory’ of such a thought based on expectations or norms (Wegner, 2002, 2005).

The second is that this assessment combines an array of cues, from environmental cues and high-level knowledge, to prior action-relevant thoughts or intentions and associated perceptual information, to sensorimotor cues in the form of efferent and reafferent information (David et al., 2008). Pacherie (2008; see also Wheeler, 2005) suggests the array of cues can be distilled into three types of intention and associated information. These map onto the modalities of self-agency: the explicit self-agency expresses ‘distal’ intentions, where the action’s intended outcome and means are specified in belief- and culture-laden cognitive terms; the implicit self-agency expresses ‘motor’ intentions, where the goal and means are given in sensorimotor terms; and the intermediate self-agency expresses ‘proximal’ intentions, given in action–perceptual terms (the action types to be implemented and the perceptual events that follow). Thus, three modalities of self-agency ascription are represented in different mental formats, each with their own characteristic form of intention.

Wegner’s (2002, 2005) observation indicates the flexibility in recruiting and using cues. Cues of all types might all indicate the same conclusion, whereby the ‘I’ is the ‘author’ of the action (i.e., there is evidence for self-agency). Cues of different types might also indicate different conclusions, for example, sensorimotor and perceptual information may suggest self-agency, but prior beliefs about past experience or cultural norms and prohibitions suggest other-agency or joint-agency. For example, someone who signs both their own and their partner’s signature on a contract, when their partner is unavailable (though willing) to sign: the implicit and intermediate level indicate self-agency, but the explicit level requires joint agency; since the partner is believed to have been willing to sign had they been available, this allows the agent to reinterpret this illegal action as a more minor issue. This

forms the basis of our proposal: different types of self-construal may emerge from different patterns over the three types of information.

Social and Cultural Affordances and Self-Agency

Affordances are relations linking mind and situation by possible action–perception connections (Gibson, 1977, 1986; Turvey & Shaw, 1979; Wells, 2002): to perceive an aspect of the environment is to directly detect opportunities for action. Affordances are not ‘subjectively imposed’ on the environment by an agent, nor do they exist in that environment independent of any agent. Perception and action form an interdependent cycle, motivating action without conscious mental representations of the relevant aspect of the environment (Richardson, Shockley, Fajen, Riley, & Turvey, 2008). Affordances inhabit the intermediate level of representation (Dreyfus, 1985; Franks, 2011) — neither wholly implicit nor explicit. In certain circumstances affordances might become the object of explicit thought, but more usually (e.g., when the action type succeeds), they are more likely to remain implicit. Intermediate self-agency involves affordances related to the self, in particular regarding combination of component actions into more complex patterns without conscious awareness (reflecting the structuring of affordances in ‘niches’: Gibson 1977; Shaw & Turvey, 1981). This is consistent with increasingly influential philosophical and psychological views of the relationship between mind and context (see Footnote 3). These views agree that many mental states simultaneously comprise ‘descriptive’ representations of a situation, plus more ‘embodied’ affective or motivational states that evaluate and prompt action towards it (see Franks, 2011, chapters 5 & 6), as in affordances.

Crucially, other people both provide and modulate affordances. What the environment affords an individual may depend on other people or groups that are present or engaged in actions that interleave with the action of that individual; and this combines with what the environment (including the individual) affords those others (e.g., Richardson et al., 2008). An

individual carrying a large piece of wood, for example, experiences affordances based on their own capacities; but if another person helps, those affordances are modulated by *their* qualities (e.g., if they are stronger it can be carried more easily), or different actions afforded (if they are much stronger, more pieces could be carried at once). Much action is social: one person's sense of agency can depend on their perception (and the reality) of other peoples' agency regarding an action or regarding actions on which their own action depends.

Moreover, for many socially significant actions, the cultural (rather than ecological) environment generates action potentials, again without peoples necessarily being consciously aware of this. Cultural affordances may arise when culturally produced artifacts generate physical affordances (e.g., Nisbett & Masuda, 2003); or culture may motivate shared attention to already existing affordances (e.g., Miyamoto, Nisbett, & Masuda, 2006; Valenti & Gold, 1991); or it may create the affordances, leading to normatively preferred actions (e.g., Loveland, 1991). Cultural affordances can operate even if another person or group upon whom an individual's agency depends is not physically present. As long those others are reliably connected (in memory or imagination) to cues in the situation, norms and their associated affordances and actions can be elicited (Chemero, 2003; Derbyshire, Ellis & Tucker, 2006; Osiurak, Jarry & LeGall, 2010). For example, cultures vary in normatively sanctioned affordances for responding to insults: some cultures motivate a first response of conciliation, whilst others motivate one of conflict escalation (e.g., Wierzbicka, 2003).

The simplest model of self-agency ascription would be a direct correspondence between cue type and modality, so that sensorimotor cues alone would lead to the 'feel' of self-agency (implicit self-agency), perceptual cues alone to self-related self-agency (intermediate self-agency), and belief and contextual cues to conscious self-agency (explicit self-agency). A more complex view (consistent with Wegner's suggestion, 2002, 2005) is that the different types of cue can enter into each of the three modalities. We suggest that this

– and in particular ‘higher’ belief and contextual cues aligned to explicit self-agency actually entering into intermediate self-agency ascription – is central to self-construal. Assessing agency involves assessing congruence between expected and actual states of affairs resulting from action, which requires both perceptual and cultural information; this leads to a crucial role for social and cultural affordances.

Culture is distributed diffusely in the environment and detected by ongoing interaction with it – eliciting implicit and affordance level (as well as conscious) knowledge and associated actions. As Markus and Kitayama (2003), Kitayama and Imada (2008), and others suggest, cultures may have different affordances eliciting different actions in similar situations (e.g., relatively automatic dispositions to conform to or resist authority). They may also differ in the degree of contingency in eliciting affordances that are common across cultures (Morling & Lamoreaux, 2008 discuss situational measures of cultural affordances). Crucially for self-construal, affordances express norms governing actions for which agency is prescribed and proscribed for individuals, contributing to self-agency assessment.

Past accounts have connected affordances with the self (see Gibson, 1994; Gibson, 1977). However, Neisser (1988) and Loveland (1991) sharply differentiate aspects of self that are subject to affordances (‘lower’ levels), from those subject to cultural effects (‘higher’, fully explicit levels). We propose instead that cultural expectations for the specific action impacts on all three Modalities of assessing agency for that action. Assessing agency at all levels involves assessing congruence between expected and actual states of affairs resulting from action, and those expectations are partly defined by culture.

Adaptive Motivations, Cultural Affordances and Self-Agency

Evolutionary approaches to psychology have developed different perspectives on how mental capacities are connected to reproductive success and inclusive fitness of those who possess them. For some (e.g., Tooby & Cosmides, 1992) they result in special –purpose

modules that are ‘designed’ to perform relevant functions; for others (e.g., Richerson & Boyd, 2005) they result in more flexible capacities for social learning which are attuned to particular aspects of the learning environment (e.g., role model qualities). The motivations that we consider are flexible in that the other people and social contexts in which they are satisfied depend heavily on socialization. Gibson (1977, p. 135) suggested that many affordances reflect evolved social threats and opportunities (see also Kaufmann & Clément, 2007; Neisser, 1988): ‘Sexual behavior, nurturing behavior, fighting behavior, cooperative behavior, economic behavior, political behavior – all depend on the perceiving of what another person or other persons afford, or sometimes on the misperceiving of it’.

Such motivations would generate different specific actions relevant to different persons, situations, and cultures. As Kenrick, Neuberg, Griskevicius, Becker, and Schaller (2008) note, both insults and scorpions can elicit approach or avoidance, depending on context and personal and adaptive reasons. The ascription of self-agency for avoidance of each, for example, would recruit different information as cues. Griskevicius et al. (2009) therefore suggest a more fine-grained fundamental motive, each of which has opportunities and threats, many of which are social in nature – including self-protection, affiliation, esteem/status, mate acquisition and retention, and parenting.

Such adaptive motivations relate to self-agency in at least three ways relevant to our view. First, achieving positive self-valuation (proposed as an evolved adaptation by Sedikides, Skowronski, & Dunbar, 2006) seems directly connected to recurrent experience of self-agency in fulfilling important motives. Second, the expression of these motivations, their means of satisfaction by action, and the criteria for success and failure, depends on cultural norms. For example, cultures vary in opportunities for interacting with potential mates (different signals of availability, encouragement, and so on) and in threats and punishments for inappropriate behavior. Thus the affordances connected to such adaptive motivations, are

cultural affordances. Third, assessments of self-agency regarding adaptive motivations need not always - or consistently - be accurate, especially where positive self-valuation is important. This has consequences for the dynamics of self-construal, to which we return below.

Towards a Better Understanding of the Processes of Self-Construal via Self-Agency and Social and Cultural Affordances

Self-agency thus appears to have three modalities or degrees of explicitness: a 'feeling' (implicit self-agency), a 'judgment' (explicit self-agency), and an intermediate 'perception' (intermediate self-agency). All play an important role in the sense of self, and interact with cultural settings, via social and cultural affordances. A particularly important class of actions regarding self-agency derives from adaptive motivations, whose satisfaction depends on cultural norms, and therefore raises questions of positive self-valuation and self-deception regarding self-agency. In this section, we look at the ways in which self-agency can lead to the formation of different types of dominant self-construals, and consider the potential moderating role of social and cultural affordances.

The Relation Between Self-agency and the Independent and Interdependent Self-Construal

Next we turn to the relations between agency assessment and the different forms of self-construal. A specific self-construal regarding a particular action or situation emerges from the assessment of agency via the combination of the three kinds of modalities previously introduced. Cues of broadly one kind might point towards independent self-construal for that action, and cues of another kind might point towards interdependent self-construal.

Starting with implicit self-agency - the sensorimotor cues (the 'feel' of an action) and motor intentions associated with implicit self-agency - independent self-construal would be

suggested if the intended outcomes of the physical movements match the ones that are sensed, and do not depend on another person. For instance, a person's motor intention to pick up a pen from a desk would be a simple case. By contrast, interdependent self-construal would be suggested if the match between motor intentions and outcomes essentially depends on the motor movements of another person. Picking up a pen which is out of reach and needs to be pushed across the desk by another person, for example. A particular class of actions that have received attention recently are cases of the emergence of synchrony in joint action – where one person's motor behavior is interlaced that of another person, with the outcome that their actions are synchronized without any explicit plan or communication (e.g., Kirschner & Tomasello, 2009, on children's synchronized behavior in drumming together). Here the motor cues to agency would point towards interdependence rather than independence.

At intermediate self-agency level, the cues concern affordances providing perceptual information on the achievement of intended actions that may be components of more complex action-plans. For independence, the sense of self-agency arises from perceiving that an action has made a change that allows the next step to be taken, where this has arisen from one's own actions alone. Filling the pen with ink before writing would be a simple case: perceptual feedback would provide cues of autonomous action. By contrast, interdependence would involve perceiving that an action has made a change that allows the next step to be taken by the individual, but where this is perceived to have arisen from either another person's or group's actions or from a joint action. One person holding the pen upright whilst the other pours ink from a bottle would be an example. The interleaving of component proximal intentions via perceptual information about outcomes in such joint action has been investigated in a variety of ways (e.g., Knoblich, Butterfill & Sebanz, 2011; Richardson et al, 2008). The outcome is ascription of agency to the individual in conjunction with others – interdependent self-construal resulting from conjoint agency.

At explicit self-agency level, the cues relate to patterns of descriptive, prescriptive and proscriptive norms and social organizations governing agency. These are the kinds of cultural patterns that have been extensively discussed by Markus and Kitayama and others scholars. For independence, they indicate situations and actions for which an individual is expected to be an autonomous agent (e.g., where the writing task assumes personal authority – such as a signature). For interdependence, they indicate ones for which agency is to be expressed in the service of or jointly together with others' goals (e.g., where the writing task assumes shared authority – such as a game of 'hangman' or 'tic tac toe'). For still others, they indicate cases where the group is expected to take causal precedence (i.e., not expected to experience self-agency at all).

The Dynamic Aspects of the Self-Agency - Self-Construal Relationship

The Agency View, illustrated on Figure 1, also offers three sources of dynamics in the relation between cultural norms and self-construal based on agency assessment. The first is that agency and self-construal are defined here for a specific action, situation and time. Where a form of self-construal recurs, it may become a dominant self-construal for that individual. However, there is no starting assumption that self-construal will always tend to match cultural expectations. The second and third concern the individual being active in 'negotiating' self-construal on the basis of agency, via two different kinds of 'dialogues'.

The first dialogue involves mismatches between assessments at different modalities. For example, the sense of agency arising from implicit self-agency or intermediate self-agency (affordances) may conflict with explicit self-agency's norms about appropriateness of that agency; the former might be (re)assessed on the basis of the latter, or the formation of the latter altered according to the former. In Figure 1, this is expressed by the arrows looping back from explicit self-agency to implicit and intermediate self-agency. This is an important basis for flexibility in self-construal: which modality takes precedence seems likely to depend

on the nature of the action, its connection to the individual's positive self-valuation, and the strength of associated cultural norms.

Motivated mismatches between modalities might, as noted above, be prompted by preserving positive self-valuation - which may be an evolved motivation, as previously discussed. This echoes Wegner's (2002) suggestion of confabulation, and can be further underpinned by evolutionary accounts of self-deception (e.g., Trivers, 2011). Not being aware of one's true motivations (or denying them) may enhance chances of successfully deceiving others, which may increase probability of successfully satisfying adaptive motivations (especially when success depends on competing with others). Self-deception may arise in assessing self-agency for actions that contradict cultural norms, contradicting the implicit and intermediate ascriptions of self-agency so as to conform to the norms and maintain a culturally appropriate and positively valued self-construal. More broadly, explicit self-agency may promote self-enhancement or self-criticism on different parameters (see Heine, Kitayama, & Hamamura, 2007; Sedikides, Gaertner, & Vevea, 2005), and mismatches may also help explain divergent findings on implicit and explicit measures of self-esteem (Heine & Hamamura, 2007; Kitayama & Uchida, 2003).

The second 'dialogue' supports dynamic effects arising from social interaction - *within* intermediate self-agency (affordances). Many actions necessarily involve an agent's affordances depending on the behavior of another person or group and *their* affordances (and on how the other's affordances modulate the agent's affordances). This may involve being aware of the other's habitual or dominant self-construal, indicating how they typically act in concert with others and whether and how the agent can rely on them. Especially in cases where the action fails - or succeeds beyond the usual norm - an implicit 'dialogue' may arise between the affordances of the agent and the agent's perception of the other. This would then influence intermediate self-agency agency assessment, that is, those cultural norms will guide

interpretation of the other's affordances. In Figure 1, this is expressed by the arrows looping between self-related affordances and others' affordances for intermediate self-agency. This dialogue will often confirm the agent's dominant self-construal, perhaps when the other shares that self-construal, or the action is routine and successful. But where their dominant self-construals diverge, or the action's success seems threatened or conspicuously improved by the other, the dialogue may have more dynamic consequences for the agent's current self-construal – and perhaps for future repetitions of the action type. As a result, the agent's self-construal may emphasize differences or similarities relative to the other, depending on the affordances and how they connect to the success of the action.

These two forms of dialogue may also interact (see Figure 1). Consider the consequences of the recent financial crisis for consumer behavior. Consumers deposit their money based on cultural affordances that makes them interdependent on the bank's investment strategies, which they presume will not threaten their deposits - i.e., consumers' interdependence seems to assume the bankers' interdependence. But the financial crisis (i.e., the threat to the success of the consumers' actions), arguably made consumers more aware of the other affordances of bankers and aware that they are rewarded for independence, not interdependence. In order to try to regain control of the outcomes of their financial actions, many consumers entertained actions with more independent self-agency (e.g., checking bank account statements more carefully, moving money to bodies with more interdependent practices, etc.). Hence, being aware of the self-construal perspective of the other in an intermediate self-agency dialogue can lead an agent to change their own self-construal regarding a type of action so as to promote its future success. These attempts might generate a more independent explicit self-agency assessment (and associated self-construal for these actions), perhaps to provide a positive self-valuation from a sense of personal efficacy. But this would remain at odds with the interdependent agency that continue to be required in

consumer banking, reflected in the intermediate self-agency assessment. The outcome of such a dialogue between explicit, implicit and intermediate self-agency for self-construal and future action, is presumably something that an agent arrives at on a case-by-case basis. And the grounds upon which they do so are an empirical matter.

The role of Power, Social and Cultural Affordances in the Agency View of Self-construal

Several variables from an individual's social and cultural environment are likely to play a role in the expression of self-agency and the formation of self-construal (see Figure 1). The first and probably most important one is individual power. Traditional definitions of power link the self - and the sense of agency - to others. For instance, Lewin and Cartwright (1951) define power as the capacity of an agent to influence or stay un-influenced from others. Magee, Galinsky, and Gruenfeld's characterization is more extensive: "the capacity to control one's own and others' resources and outcomes" (2007, p. 201). Few works in psychology have looked at the potential relation between self-construal and power. Lee and Tiedens (2001) hinted at a possible connection between power and self-construal, and, more recently, empirical and theoretical work further corroborated this relation (Voyer & Reader, 2013; Voyer & McIntosh, 2013).

Following Voyer and McIntosh (2013), power can be related to self-agency given its effects on individual perception and cognition and on social interaction - that is, principally via intermediate self-agency (social affordances). Power can both modulate the expression of one's own affordances (e.g., encouraging or limiting performance of the relevant actions), as well as one's perception of another's affordances (e.g., making it more or less likely that one will perceive those affordances). Guinote (2007) suggested that power changes decrease the processing of peripheral information, which is not relevant to goals and needs (of the kind connected to affordances), and Anderson and Galinsky (2006) that individuals with power are

more focused on their own internal states. Support for a role of power in the relation between other-related affordances and self-agency can also be found in the works of Keltner et al. , 2001, who suggest that power affects the type of emotional connections that individuals develop with others, or Regan and Totten (1975) who suggest that powerful individuals do not use the same type of empathy strategies as those without power. Finally, work by Goodwin, Operario, and Fiske (1998) identified different impression formation strategies for high power vs low power individuals.

Power may also modulate motivations that connect to self-agency. Fiske and Fiske (2007) for instance suggested that power affects core social motives that drive individual behaviors. This could result in powerful individuals favoring motivations such as self-enhancement - which could affect independent self-construal (as well as self-deception over responsibility for counter-normative actions) - over relationship enhancement – which could affect interdependent self-construal. Finally, perspective taking could also be one of the mechanisms through which power moderates the effect of others' affordances on self-agency and self-construal – as in the example of bank consumers (above). According to Davis, Conklin, Smith, & Luce (1996), perspective taking is a key mechanism used by humans to adapt to their social environment. Perspective taking also probably plays an important role in the two types of internal dialogue previously discussed.

The role of power in the relation between self-agency and self-construal can be further moderated by a series of more general social and cultural affordances (see Figure 1). For instance, Lammers and Galinsky (2009) argue that Western culture foster an association of power with independence, whereas Eastern cultures foster an association of power with interdependence. Magee, Zhong, Galinsky, and Maddux (2010) also note that the expression of power differs across cultures, and that, in collectivist cultures, individuals with high levels of power are expected to use their power in a responsible manner - that is, caring for the

consequences of their actions on the powerless.

Our view is that - at least as regards its connection to agency and self-construal - gender has a similar role to power. Gender roles can be understood in part as involving a set of social and cultural affordances that regulate not only individual action but also social interaction. Our suggestion is that these affordances influence the exercise of power in social relations, so that gender influences self-agency assessment only indirectly via its influence on power when it has a connection with the specific action under consideration. As with other cultural variables, gender also more generally moderates the interpretation of self-agency in the formation of self-construal (see Cross & Madson, 1997).

Our discussions of power and gender illustrate a key aspect of the Agency View: culture has an influence at two points in the process of self-construal based on self-agency. The first is a 'local' effect of *specific* norms associated with affordances and explicit beliefs connected to the *specific* action whose agency is being assessed (in Figure 1, the elements that enter into self-agency assessment). The second is a 'global' effect of more *general* norms and beliefs that are not tied to specific actions (or affordances not associated with the specific actions whose agency is being assessed on this occasion), but which concern, for example, roles, gender and broad cultural models for patterns of activity (in Figure 1, the elements that moderate the relationship between self-agency assessment and self-construal). Power has both kinds of effect: it moderates the interaction between agent and other and so influences the expression of specific affordances in the assessment of self-agency; but it also connects to more general norms and models that moderate the way in which self-construal builds on that agency assessment. |Gender, we suggest, has an indirect effect on self-agency assessment via its impact on power, but it has a direct moderating effect on the relation between self-agency and self-construal. Other cultural variables may have an effect on the relation between self-agency and self-construal, but not directly on self-agency itself.

Discussion

Answering the ‘why’ question for self-construal thus takes us through self-agency assessment. We argue that self-construal is an important aspect of the sense of self because it systematizes general cultural expectations and tendencies that enter into a cyclical process with the assessment of self-agency, which itself draws on evolved dispositions. In addition, self-construal takes the form of independence versus interdependence precisely because assessments of self-agency offer two ways of affirming self-agency (self-agency of the individual and self-agency in relation to others). In light of our conceptualization of the Agency View, we first discuss how this connects with other approaches concerned with self-construal, and then consider its relations to culture, before discussing methodological consequences and implications for future research.

The Agency View and Other Accounts of Self-Construal

The close connection between self-construal, agency and motivation, which we introduced here, aligns with past accounts of self-construal theory (Markus and Kitayama 1991, 2010; see also Heine, 2007, 2010). The novelty of our perspective concerns the *locus* and *origin* of this connection. For Markus and Kitayama, agency and motivation are primarily *consequences* of self-construal (see Figure 1). Regarding motivation – peoples' goals people and characteristic ways of approaching them – Kitayama, Duffy, and Uchida (2007) suggest that independence enshrines a principle of goal-directedness, whereas interdependence enshrines a principle of responsiveness to social contingencies. These cultural normative principles evaluate actions arising from forms of self-construal, which depends on prior assessment of agency for those actions. Regarding agency, Markus and Kitayama (2003, p. 4; see also Kitayama & Imada, 2008) suggest interdependent self-construal connects to a model of 'conjoint' agency, which 'is constructed as relational, as jointly afforded and manifest in adjusting to particular others' (p. 44), while independence prompts a model of 'disjoint' agency in which 'actions affirm and realize a relatively independent self' (p. 43). Again, normative models of agency arise from cultural forms of self-construal, which depends on prior agency ascription.

We concur with Markus and Kitayama's view, but suggest that it offers only a partial picture in relating more to knowledge, models of agency or action regulation than to the *process* of determining one's own sense of agency. Our view is that the *process* of agency assessment is integral to the process of self-construal, such that agency and motivation are important *antecedents* and consequences of self-construal, in a cyclical process. This engages not only cultural cues but also sensorimotor and perceptual ones, in a process whose *origin* is partly in evolved motivations (concerning self-valuation and self-deception, plus fundamental social motives).

Viewing self-agency as an antecedent (as well as a consequence) of self-construal, leads us to different perspectives on a range of ideas concerned with how the self connects to others. We note three. First, Lee and Tiedens (2001) suggest that someone might be relationally relatively independent (i.e., have few close ties) but, as a consequence, view themselves as interdependent on those few people. On our view, this would reflect the mismatch between an explicit assessment of independent agency (leading to an independent self-construal) and the assessment of interdependent agency at implicit and intermediate levels. Self-agency may be more or less independent even if self-construal is interdependent.

Second, the Agency View echoes important ideas concerning how someone's sense of self relates to a group of which they are a member. For interdependent agency, implicit self-agency involves the 'feel' or 'sense' that another's actions are intrinsically intertwined with one's own, and intermediate self-agency involves the perception that another's affordances and one's own are dynamically intertwined (so that one's own affordances evoke affordances in the other, and the affordances of the other then modulate one's own affordances). This echoes Swann et al's (2012) concept of 'identity fusion', a visceral, felt sense of oneness (including agency) with another person or group, which is prototypically expressed in family relations but can expand to larger groups. Swann et al. (2012) make the important point that being fused with a group does not entail complete immersion of all thought and emotion in that group; it does not involve 'substituting' a 'social self' for a personal or individual self (unlike, arguably, Social Identity Theory: Tajfel & Turner, 1979, 1986). This is particularly important for agency: fusion does not preclude an individual sense of agency that is separate from the group or that allows creative, individual ways of achieving group goals. The Agency View suggests that this might arise from a mismatch between interdependent agency assessments at implicit and intermediate self-agency, with independence at explicit self-agency.

Third, the Agency View also clarifies a possible process for building content in self-construal. Woike (1994) proposed processes of self ‘integration’ and ‘differentiation’. Differentiation makes individuals see more differences than similarities between their self and others, whilst integration reverses this. We suggest that self-construal generates this contrast partly because of different self-agency assessments. Recurrently assessing the self alone as the agent for actions eventually leads to a larger set of memories of actions and situations with the self as focus for the differentiation process to draw on; and recurrently assessing agency as conjoint will lead to more memories in which self and others are intertwined, inputting to integration. Hannover, Birkner, and Pöhlmann (2006) note that independent self-construal produces ‘autonomous’ self-knowledge (e.g., traits and attitudes), derived, we suggest, from inferences about types of autonomous actions or the situations in which they arise; interdependent self-construal produces ‘social’ self-knowledge (e.g., group memberships), derived from inferences for social groups with whom agency is reliably intertwined.

The Role of Culture in the Agency View of Self-Construal

One of the key challenges for self-construal theory has been to solve the puzzle of the large degree of variation in self-construal within cultures, given that culture is a main cause of self-construal. The Agency View offers a novel perspective to this. We perceive affordances as combining to form complex ‘niches’, which are sets of normatively framed ways of acting connected with recurrent situation types (see Laland, Odling-Smee and Feldman, 2000, for an elaboration of the concept of a ‘niche’ as a repository of cultural and ecological constraints that scaffold action and can lead to evolutionary adaptation). Some kinds of situations might together constitute a niche if they exhibit mutually sustaining affordances, for example, based on institutional patterns (e.g., places of work, of leisure, of education). Other types of niche — perhaps ones predominantly related to satisfying adaptive

motivations — are likely to crosscut situations (e.g., a ‘mate attraction’ niche, comprising the cultural affordances related to attracting a mate, may be distributed across different situations and institutional types; see Franks, 2014).

This picture inverts the notion that cultures comprise mutually reinforcing sets of consistent ideas, practices, and artifacts, allied to a large group or even nation; it therefore contradicts the expectation that a whole nation/culture comprises antecedents that consistently connect self-construal with independence or interdependence. Instead, the possibility of mutually reinforcing and mutually contradictory affordance niches prompts attention to the details of interactions with specific kinds of contexts. Thus, the rather small effect sizes for correlations between a whole nation/culture and self-construal are unsurprising (Oyserman, Coon, & Kemmelmeier, 2002). Such findings may be understood as expressions of abstractions or aggregations over an array of niches, which individually prompt different self-construals. If investigations focused on specific niches, we would predict larger effect sizes, though they might not all connect with independence or interdependence because different niches impose different behavioral demands. Attention to context therefore suggests a search for within-cultural or within-national variations, in line with critiques of cross-cultural psychology (Matsumoto, 1999, Ratner, & Hui, 2003, Schwartz, 1990; Shweder, & Sullivan, 1993).

Our view also differs from other solutions to how large degrees of within-cultural variation in self-construal can arise even within a culture that might be thought to have a single, dominant form of self-construal. Kitayama, Park, Sevincer, Karasawa, and Uskul (2009) offer a three-level view, starting with the abstract formulation of a culture’s explicit ‘cultural mandate’ (e.g., to be interdependent); this can be reflected in a range of more specific ‘cultural tasks’, which are culturally prescribed complex patterns of behavior and thinking that help achieve the mandates (e.g., to be self-effacing, to have honor and respect);

those tasks themselves can be achieved by a range of (often implicit) specific ‘psychological tendencies’ (e.g., tendency toward situational attribution, toward engaging in other-focused emotions). Different individuals typically possess only some of the relevant psychological tendencies and perform only some of the cultural tasks, so that they will not fulfill the cultural mandate to the same degree - giving scope for intra-cultural variations. Such variations would then produce low correlations between measures of the explicit cultural mandate and cultural tasks/psychological tendencies.

This is an elegant solution to a complex problem, though it may not go far enough in contemplating within-cultural variability, for three main reasons. First if, as suggested above, niches cross-cut each other, then different psychological tendencies might not only correlate positively with each other but could contradict each other. Second, focusing on the connection between psychological tendencies, tasks and culture overlooks the prior issue of ascribing agency for actions connected with psychological tendencies and cultural tasks. If ascribed agency mismatches with cultural expectations, then the performance of those actions simply cannot confirm the cultural mandate (on that occasion), even if ordinarily there is a strong correlation between the action and the mandate. Third, it does not address the possibility of motivated mismatches between cultural norms and psychological processes, such as in self-deception. However, in line with our proposal to link self-construal to agency via evolutionary motivations, Kitayama, King, Yoon, Tompson, Huff and Liberzon (2014) offer the intriguing possibility that such mismatches could in part be explained by gene-culture interactions – people who inherit specific genetic variants that motivate greater responsiveness to social rewards (in the brain’s uptake of dopamine) appear less likely to act in ways that generate mismatches with cultural norms regarding self-agency. The Agency View does thus not contradict cultural task theory, but consolidates such scope for a more active – dynamic and dialogical – relation between an individual, their actions and cultural

norms. Context dependence is more complex than an individual selecting from a range of options; it also generates new options via the dynamic interchange of perspectives and associated affordances in social interaction: Culture encompasses contradictions and contestations between individuals and within individuals. We view such apparent self-contradictions in self-construal as underpinned by consistent questions and processes regarding self-agency.

The complex nature of context dependence of self-construal is important because individuals use and need both types of self-construals (Imamoglu, 2003; Baumeister & Leary, 1995; Kagitçibasi, 2005); we suggest that this is because self-agency and adaptive social relations necessarily involve both autonomy and relatedness (Blanton & Christie, 2003; Guisinger & Blatt, 1994).

The Agency View and Methodological Issues in Self-Construal Research

There are several different implications of the Agency View for empirical research on self-construal and connected variables. The first is the overarching suggestion that research should pay more detailed attention to the specifics of social situations and actions, and their connections to self-agency and self-construal.

If culture, and in particular cultural affordances regarding agency, needs to be assessed in a fine-grained way, this suggests a shift to a more pluralistic methodological approach. Typically, research on self-construal involves the use of questionnaires to tap into individuals' explicit views of themselves, and investigates explanatory connections between variables by correlational techniques. An arguably more appropriate measure of the process of self-construal is the IOS (Inclusion of Other Scale: Aron et al., 1991; Aron et al., 1992). However, this scale assumes that different self-construals are bipolar opposites, which contradicts Markus and Kitayama's (1991) assumption that independent and interdependent self-construals are statistically independent, which underpins the vital possibility that an individual can be simultaneously independent and interdependent. This plea for methodological pluralism is consistent with Markus and Kitayama (1998), Kitayama (2002), Kanagawa, Cross, and Markus (2001), and Matsumoto (1999), who argue that questionnaires may not be the most appropriate measure for self-construal in collectivist settings. We argue that they may also not be appropriate in the West, at least for some important aspects of self-construal - in particular, those that are closely coupled to implicit self-agency assessments of self-agency or to intermediate self-agency (affordances) (cf. below).

Regarding other methods, Matsumoto (1999) called for qualitative methods to provide a more nuanced understanding of the local cultural expressions of self-construal. However, like questionnaires, most qualitative methods are restricted to explicit self-agency ('judgment') — expressible verbally as explicit knowledge in, for example, a semi-structured

interview. Though valuable in its own right, it lacks insight into the other modalities of the sense of self-agency. Because self-construal is, by turns, a cause and consequence of Modalities 1 and 2 of self-agency, explicit verbal tasks simply fail to tap into a range of important self-construal phenomena.

This leads to the second implication of the Agency View for methodological issues: the importance of Modalities 1 and 2 to self-construal suggests several different directions for measurement, which would be complementary to explicit, verbal methods. One is the use of non-verbal methods. For example, recall the comments on identity fusion theory, above. Since fusion involves implicit agency interdependence, the pictorial or diagrammatic measures of degrees of identity fusion used as dependent measures by Swann et al (2012), could also be used as an indicator of degree of implicit interdependent agency (implicit self-agency). To assess self-agency at intermediate self-agency level, fine-grained experimental methods designed to tap into perception–action–self-agency–self-construal cycles could be used, contrasting the sequences that arise for actions that require conjoint agency with actions that do not; such methods have been used in work on affordances in ecological (and, more recently, embodied) social psychology (e.g., Richardson et al, 2008); their connection with self-construal is yet to be exploited. Other appropriate methods are experimental techniques that tap into implicit, nonconscious beliefs about the self, in parallel to the important work on implicit attitudes (see Greenwald & Banaji, 1995). For example, the degree to which target words connoting independence or interdependence were primed by words for particular action types in a lexical decision task could be used to assess implicit agency assessments. More broadly, priming studies have been considered as ways of investigating affordances that arise as nonconscious responses to situational, cultural stimuli (e.g., Morling and Lamoreaux, 2008). Such measures are particularly useful in revealing information that people might explicitly reject because their expression may have negative social consequences. This would

be of especial interest regarding the dynamics between Modalities, in which explicit and implicit assessments of agency may contradict each other for counter-normative actions. Finally, the growing work on cultural neuroscience might offer novel perspectives on how to approach and measure self-construal (Ambady, & Bharucha, 2009; Jiang, Varnum, Hou, & Han, 2014; Kim, & Sasaki, 2014; Ma, & Han, 2011).

The third general implication is that the antecedents of self-construal include not only institutional or norm-based aspects of culture, but also *interactional* or *relational* ones that contribute to self-agency. Intermediate self-agency assessment involves the agent perceiving the other and their joint affordances relative to the action in hand, and this has an impact on the agent's sense of agency and self-construal. Scant research, however, has investigated the impact of *others'* characteristics on dominant self-construals, despite McGuire's (1984) argument that the social environment is a strong determinant of the accessibility of self-perception. Gardner, Gabriel, and Hochschild, (2002) suggest that self-construal is related to social comparison, thus linking self-construal and social environment. They further argue that 'it is probable that a large determinant of the outcome of comparison processes may be the current self-construal of the individual' (p. 240). Social variables such as power or status vary contextually, and their moderation of social affordances in contributing to self-agency might help explain contextual changes in self-construal. Perhaps the most direct expression of self-agency in the social environment is power, which is both reflected in and directive of ascriptions of self-agency for normatively valenced actions (see above). Assessing the relations between social-interactional variables and self-construal again suggests going beyond correlational methods. For example, the effect of power on self-construal could be assessed by using quasi-experimental methods (comparing the self-construal of different groups with pre-existing power or status differences, e.g. Voyer & Reader, 2013), or experimental methods (manipulating the perceived sense of power or status experimentally).

Or it could be employed as an additional independent variable in the non-explicit methods outlined above.

In sum, the Agency View both echoes previous general discussions that call for methodological pluralism in the study of self-construal, and offers some novel specific suggestions about how this might be achieved.

Future Research Directions

Our conceptual model offers a novel way to understand self-construal mechanisms, by relating self-agency to self-construal. It offers an account of the relations between a small set of variables that are important to explaining self-construal. Other variables and approaches appear to intuitively to be connected to self-agency, which could lead to fruitful empirical and theoretical investigations in future. We note two here, both concerned with how people regulate their actions (see Footnote 4).

An important set of connections concerns how people regulate or direct their actions or understand their ability to do so. One area of recent research has emphasized self-construal's additional impact on the way goals are approached, connecting it to regulatory focus theory (Lee, Aaker, and Gardner, 2000; Higgins, 1997). Regulatory focus theory suggests that movement toward a goal may focus on opportunities offered by satisfying that goal ('promoting' the goal) or on the threats arising, for example, from failure ('preventing' losses). Lee et al. (2000) find a tendency for individuals with dominant independent self-construal to be promotion-focused, whereas those with dominant interdependence tend to be prevention-focused, though the former shift to prevention in contexts that emphasize the impact of their behavior on others (e.g., team events). The implication is that different regulatory foci result from different self-construals. Our suggestion here is complementary: regulatory focus is one way in which self-construal influences ongoing self-agency assessments in the implicit and intermediate modalities. However, an area for empirical

investigation would concern the scope for mismatches between Modalities may add further flexibility, enabling individuals to avoid responsibility in their self-construal, for counter-normative instances of action promotion or prevention.

A second, more complex set of connections is with the theory of self-regulation (Baumeister & Vohs, 2007; Carver & Scheier, 2000, 2009; Zimmerman, 2000). Self-regulation broadly concerns the capacity of the self to alter behavior in accordance with demands such as internally or externally defined standards or goals. Self-monitoring is a cyclical process, in which feedback from prior actions is used to make adjustments to ongoing activity, so as to bring it closer to the standard. Individuals may experience conflicting goals (e.g., personal versus social-normative), and the monitoring and regulation processes help ensure that they do not consistently contradict social norms. The dynamic processes of self-regulation echo those that we have suggested enter into self-agency assessment; however, testing actions against a normative standard in self-regulation, requires a prior assessment and acceptance of self-agency for those actions (Kareklas, Carlson, & Muehling, 2012). Three empirical issues suggest themselves. First, self-regulation tends to concern actions for which self-agency is usually independent, so that the individual self can be assessed as succeeding or failing to meet the standard. Our view suggests the possibility of investigating whether the same processes of regulation of behavior towards normative goals would also arise in cases of interdependent self-agency. Second, self-regulation in general predicts that a failure to match a given normative standard motivates future efforts to better match it (as long as the individual has sufficient motivation towards the goal and sufficient self-regulatory strength or willpower); that is, the person assumes self-agency for the failure. Our view suggests the possibility of investigating how and when the failure to meet standards could lead to denial of self-agency. A third, broader set of possibilities concerns how self-regulation processes relate to the proposed connection between self-agency and self-

construal. Since self-regulation typically concerns regulation of self over a series or range of actions, one angle of investigation would concern how variations in assessments of self-agency for a type of action might feed into the self-regulation process, and how this might then connect to self-construal. Another possibility arises from the role of motivation in self-regulation: self-monitoring is more active in attempting to reach the standard when there is higher motivation towards succeeding in the action; so self-regulation processes might influence self-agency assessment, perhaps by modulating intermediate self-agency's perception of affordances, or explicit self-agency's assessment of responsibility for an action. These issues suggest some very fruitful lines of empirical inquiry.

Conclusion

Markus and Kitayama's (1991) theory of self-construal changed how psychologists understood phenomena of self-perception, by emphasizing the different ways individuals relate to others. The present article discussed the current understanding of self-construal processes and antecedents, and proposed a new view of self-construal as a process of the self shaped by the interaction between self-agency, social and cultural affordances. As a process of the self resulting from self-agency assessment, self-construal is likely to be less stable over time and more susceptible to change contextually. In addition, the dominant cross-cultural perspective of self-construal has minimized the relevance of distinguishing between independent and interdependent self-construal for understanding within-cultural variations of self-construal. Going beyond the role of gender and culture in self-construal formation to that of the social environment will allow researchers to deepen their understanding of self-construal. Only when the nature and origins of self-construal differences are better understood can researchers realize the full potential of Markus and Kitayama's theory.

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Figure

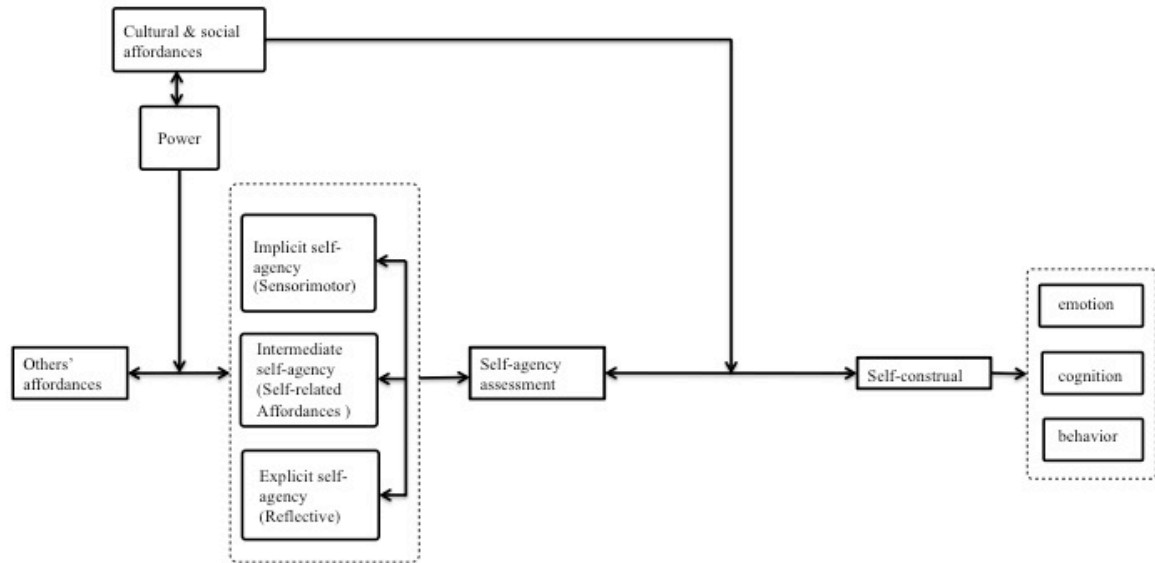


Figure 1: The Agency View of the Processes of Self-construal

Footnotes

¹ As of April 2014, Markus and Kitayama's (1991) article was in the top 20 most cited psychology references in the web of science.

² Others have also suggested interpolating another kind of mental state (parallel the intermediate self-agency) between fully conceptualized representational and reasons-based relations to the environment on the one hand (fully explicit knowledge) and more simply physical causal relations to the environment on the other hand (implicit) for a broad array of mental processes (e.g., Dreyfus, 2005; Rowlands, 2006; Wheeler, 2005; see Karmiloff-Smith, 1996, 2002, for a more complex view). This intermediate type of state is partly explicit in comprising a separate element of representation in thought, usable by different parts or processes of the system (unlike implicit states), but is not available to conscious awareness or judgment (unlike truly explicit states).

³ Relevant philosophical views include 'extended' mind or situated cognition (e.g., Clark, 1987), the connection between social construction and evolution (e.g., Mallon, 2008),¹ and Millikan's (1996) conception of 'pushmi-pullyu' mental states. Psychological perspectives have also proposed such intertwining of different kinds of representations (Baldwin, 1997): for example, 'enactive memory', in which recall from memory is tied to the reasons for it and the actions it supports (e.g., Glenberg, 1997; Neisser, 1988). Another involves treating affect as information in cognitive judgments, so that they are functionally inseparable (e.g., Clore & Huntsinger, 2007). Yet another view is that it may not be possible to separate affective from 'descriptive' aspects of representations (e.g., Barsalou, Niedenthal, Barbey, & Ruppert, 2003; Duncan & Barrett, 2007; Panksepp & Northoff, 2009).

⁴ Other interesting areas for future research would include investigating how the three levels of self-agency assessment relate to typical dual process models in social cognition and decision-making research (e.g., Evans, 2008; Evans & Stanovich, 2013, Samson & Voyer,

2013).