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Abstract

This article argues that when attempting to extend the concept of affordances to encompass action possibilities characteristic of our sociocultural environments, a transactionally informed relational perspective—along the lines formulated by classical pragmatist thinkers (especially Dewey and Bentley but also Peirce and Mead)—proves useful. A transactional perspective helps to reveal the intimate conceptual connections between sociocultural affordances (SCAs) and agency: both are crucially about contextually defined goal-directed doings, and about learning to fluently master particular patterns of habits, skills, and sociocultural practices in culturally appropriate and socially feasible ways. The paper outlines first, critical issues in the conceptualization of SCAs; second, how the concept of SCAs also points towards a transactional conception of agency enactment; and third, how a transactional view helps to make sense of some of the apparently puzzling tensions and fringe areas between various conceptualizations of (sociocultural) affordances and agency.

Keywords

agency, ecological psychology, pragmatism, sociocultural affordances, transactionalism

The concept of “affordances,” originally developed by James J. Gibson (1979), the founding father of ecological psychology, has recently been applied and elaborated on conceptually within a breathtaking range of scientific disciplines and practical fields, including psychology and ecological psychology (e.g., Heft, 2013), cognitive science (e.g., Gallagher, 2017), social psychology (e.g., Kitayama et al., 2006), philosophy and phenomenology (e.g., Rietveld, 2008), sociology (Hutchby, 2001), science and technology studies (e.g., Jarzabkowski & Pinch, 2013), architecture, design, and engineering (e.g., Maier et al., 2009), and environmental policy (Kaaronen, 2017).

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These elaborations and applications share some interesting commonalities: first, there is a marked striving to find, and develop, ways in which the affordance concept could be applied also to contexts that are *sociocultural* by nature. Second, analytical interest is increasingly devoted to the dynamic interplay between *human action/agency* and affordances of the environments in which humans are embedded. And third, recent elaborations demonstrate interesting resemblances regarding the adoption of similar metatheoretical perspectives that can be characterized broadly as *relational* and, as such, as distancing themselves from approaches that view affordances merely as “properties” of the environment. In philosophical terms, the perspectives manifest a shift away from the so-called spectator model of knowledge/knowing and towards alternatives that better acknowledge the role of sociocultural, practical, and material (including corporeal) mediation in and for human knowing and action (cf. Good, 2007).

This article argues that if and when attempting to extend the affordance concept to cover action possibilities characteristic of our sociocultural environments, a *transactionally* informed relational perspective—along the lines formulated by classical pragmatist thinkers (especially Dewey and Bentley, but also C. S. Peirce and G. H. Mead)—proves useful. A transactional perspective helps to reveal, and even theoretically bridge, the intimate conceptual connections between sociocultural affordances (SCAs) and agency: both are crucially about contextually defined goal-directed doings, and about learning to fluently master particular patterns of habits, skills, and sociocultural practices, so that they can be creatively enacted *in situ*, in culturally appropriate and socially feasible ways.

Moreover, the transactional view helps to make sense of some of the apparently puzzling tensions and fringe areas between various conceptualizations of SCAs and agency. First, a transactional perspective provides a mediating account between enactivist views, emphasizing that the agent, via their active regulation of the agent–environment coupling, is in the driving seat, and phenomenological accounts, highlighting how it is rather the environment and its affordances that call for appropriate responses from skillful agents. Second, a transactional view elaborates how human agents routinely enact their agency to alter their environments and SCAs in the course of their action projects and, moreover, how alterations in affordances may also lead to alterations, or even transformations, in the agents and their “selves.” Such a reciprocal transformational possibility has so far received less attention in the literature on (sociocultural) affordances. Third, a transactional view also points out how action and agency enactment in a social environment (and vis-à-vis SCAs) are laden with constraints and potential threats: since SCAs emerge as both possible enablers and constraints for agentic projects, agents should also keep an eye on how other agents and forces might react, and act upon, the action possibilities pursued by them. Hence, and as elaborated by pragmatist thinkers, a combination of socially perceptive reflection and creative agency enables agents to take into account a diversity of perspectives and interests in an action situation and to broaden their views to attain more comprehensive perspectives on the situation. Finally, the transactional perspective also suggests answers to persistent questions concerning the implications of sociocultural affordance theorizing, that is, whether affordances in general are relational (cf. Katz, 1987) and whether the conceptualization of affordances as sociocultural implies a threat of relativism (cf. Costall & Still, 1989; Hodges & Baron, 1992).

Affordances, sociocultural affordances, and agency: Transactional starting points

J. J. Gibson developed his theory of affordances as part of a more general project that pursued the advancement of an ecological psychology, that is, an ecological approach to perception (especially visual perception), cognition, and behavior (Gibson, 1979; see also Chemero, 2003; Costall, 1995; Good, 2007; Heft, 2001; Reed, 1996). In that connection, when describing affordances in general terms vis-à-vis the perceptual relations between an animal and its environment, Gibson famously defined affordances thus: “The *affordances* of the environment are what it *offers* the animal, what it *provides* or *furnishes*, either for good or for ill” (1979, p. 127).

Ecologists have the concept of a *niche*. A species of animal is said to utilize or occupy a certain niche in the environment. This is not quite the same as the *habitat* of the species; a niche refers more to *how* an animal lives than to *where* it lives. I suggest that a niche is a set of affordances. (Gibson, 1979, p. 128)

Indeed, a broadly relational (or “mutualist”; cf. Good, 2007) perspective is already evident in these descriptions of the affordance concept: affordances are understood as *possibilities* of action offered to the animal-organism (including human agents) by the environment (Chemero, 2003; Heft, 2007, 2013; Reed, 1996). As agents then perceive environmental affordances as offering feasible possibilities for actions, they will effectively orient to, and potentially start regulating their behavior *in relation to*, the situationally salient affordances (see Chemero, 2003; Costall, 2012; Good, 2007; Heft, 2013; Withagen et al., 2012).¹ This brief description of affordances thus already points towards the three main elements that this paper sets out to examine further, that is, (sociocultural) *affordances*, human *agency*, and the processes of their coconstitution and reciprocal shaping, viewed from a relational, *transactional perspective*.

Approaching affordances from a transactional perspective

An ecological psychology perspective that emphasizes the mutuality and relationality between the active agent and its environment resonates closely with what has been termed a “transactional” perspective. It was developed within the philosophical tradition of American pragmatism, especially by John Dewey (1896, 1920, 1929) and Dewey and Arthur Bentley (1949), but also by other pragmatist thinkers. Indeed, commentators have pointed out that Dewey’s transactional ideas have been influential in paving the way for ecological thinking in psychology (see Brinkmann, 2011; Burke, 1994; Costall, 1995; Good, 2007; Heft, 2001, 2013; Noble, 1981); subsequently, scholars have noted the relevance of transactional and pragmatist ideas (as elaborated by Dewey and other pragmatists²) for ecological psychology, and some have also proposed ways to integrate these ideas into the theoretical architecture of ecological psychology (see Brinkmann, 2011; Burke, 1994; Good, 2007; Heft, 1989, 2001, 2013; Noble, 1981; Shotter, 1983).

Ultimately, the *transactional* perspective is about a processual understanding of events and actions, where the components and units of action sequences are viewed as

shaped and defined by other partaking components and the action context where they all are embedded. These dynamic relations, that is, transactions, are then viewed as defining and constituting the functional roles, meanings, and identities of components of actions and events (e.g., human agents, artifacts, material entities; see Dewey & Bentley, 1949; see also Brinkmann, 2011; Emirbayer, 1997; Good, 2007). Hence, components of transaction relationships are distinguished as complementary aspects within more inclusive wholes (transaction processes; Emirbayer, 1997; Good, 2007). The transactional perspective thus emphasizes the centrality of processes of coconstitution; the components of transaction relationships are acknowledged as being constitutive of, and capable of shaping, each other's being, identity, and the functional role they play in those transactions (Emirbayer, 1997). Dewey and Bentley (1949) illustrate the logic of the transactional approach by contrasting it with approaches that focus on the isolated individual units or components of an event, by stating that:

no one would be able successfully to speak of the *hunter* and the *hunted* as isolated with respect to *hunting*. Yet it is just as absurd to set up hunting as an event in isolation from the spatio-temporal connection of all the components. (p. 133)

The transactional perspective thus focuses on the ways in which various units involved in transactions coconstitute, shape, or stabilize each other, in and through their dynamic relatedness in the course of unfolding actions and events. Emirbayer (1997) explains how these basic transactional principles imply a certain holistic perspective:

The very terms or units involved in a transaction derive their meaning, significance, and identity from the (changing) functional roles they play within that transaction. The latter, seen as a dynamic, unfolding process, becomes the primary unit of analysis rather than the constituent elements themselves. (p. 287)

Viewed thus, it becomes quite obvious how the transactional perspective differs radically from such conventionally assumed metatheoretical perspectives that Dewey and Bentley (1949) call "*substantialist*" thinking. According to substantialist thinking, things are viewed as fixed substances (for instance, as fixed "variables") that can have causal impacts on, or interactions with, other entities but remain essentially unchanged themselves (Dewey & Bentley, 1949; Emirbayer, 1997). Dewey and Bentley (1949), analyze two variants of substantialist thinking in more detail: "self-action" and "inter-action." Self-action perspective portrays things as acting under their own powers, independent of other substances (Dewey & Bentley, 1949, p. 108); examples of self-action approaches can be seen as extending from ancient and medieval philosophy to present-day rational-choice theories that portray agents' interests and preference-schedules as pre-given entities that generate self-action (Emirbayer, 1997, pp. 283–284). Inter-action perspective, by contrast, portrays things as causally interacting with each other (like billiard balls) but always remaining essentially unchanged themselves (Dewey & Bentley, 1949, pp. 105–111); accordingly, examples of inter-action approaches range from Newtonian mechanics to various variable-centered approaches popular in contemporary social sciences (Emirbayer, 1997, pp. 285–286).

If we juxtapose Gibsonian “mutualist” (cf. Good, 2007) affordance theorizing with the transactional perspective, a striking parallel can be revealed. Both views emphatically resist resorting to substantialist thinking and, instead, emphasize that processes of action and perception are contextually constituted (or coconstituted, as the transactional view makes plain), and that such processes are inseparable from the contexts in which they are embedded. Indeed, Brinkmann (2011) argues that both views thus “problematize a clear distinction between organism and environment, so that much of what is commonly thought of as belonging to the environment (gravity, tools, etc.) must be functionally understood as belonging to the organism” (p. 303). In this respect, the concept of *habit* is essential in pragmatist and transactional thinking; in the course of (trans)action processes habitual patterns are formed that enable—but also constrain—agents to act in, and perceive properties of, their worlds. Brinkmann (2011) also points out another parallel between Gibson’s mutualist ecological psychology and Dewey’s transactional approach: both approaches view processes of action and inquiry as preceding knowledge. As put by Dewey (1929): “things are objects to be treated, used, acted upon and with, enjoyed and endured, even more than things to be known. They are things had before they are things cognized” (p. 21). Further, Dewey (1920) claims that things are thus “what they can do and what can be done with them—things that can be found by deliberate trying” (p. 115).

Transactional engagement with things thus discloses affordances and opens up avenues for further action. Shotter (1983) has argued that both Dewey’s transactional thinking and ecological psychology emphasize how human action is peculiarly “doubly structured.” This means that human action and agency is:

structured both as a product and as a process, or better, it is both structured and structuring. And the significance of this is that, when linked to the concept of intentionality, it explains how human action can, *in the course of its own performance*, provide itself with the conditions for its own continuation. In other words, by acting we can create the conditions for further action. (Shotter, 1983, p. 19)

Transactionally viewed, human agency thus peculiarly participates in the constitution and creation of affordances for its own continuation. A couple of other, highly influential, social theoretical lines of thought have elaborated broadly similar “duality of structure” ideas. First, Anthony Giddens (1979, 1984) developed an influential theory about the constitution of society viewed as a process of *structuration*, where societal structures (social class structures, divisions regarding gender, labor, education, etc.) serve simultaneously both as constraints and resources for the actions of agents. On the one hand, social structures are an all-encompassing societal condition, a social fact, that agents cannot escape and yet, on the other hand, the structures only exist and are maintained in and through everyday acts and agency. Even if Giddens does not develop an explicitly transactional theory of the duality of agency and structure, the basic principles resonate closely with transactional thinking. Second, Pierre Bourdieu’s influential notion of *habitus* conceptualizes the duality of structure from the perspective of socialization dynamics, where aspects of the sociocultural environment are ingrained into agents’ bodily and

mental dispositions, habits, and skills, that is, their habitus (Bourdieu, 1973/1977; on the transactional tones of Bourdieu's thinking, see Emirbayer, 1997).

Taken together, the notions of the duality of structure elucidate the essentially transactional relation and coconstitution between SCAs, action contexts, and possibilities and constraints of agency. Indeed, in contrast to other organisms, human beings are simultaneously carriers, (re)producers, and subjects of (also in the sense of being subjugated to) a uniquely human category of affordances, that is, SCAs.

Sociocultural affordances as human conventions and semiotic carriers of meaning that render situated transactions governable

Already Gibson's theory of affordances assumed that there is a fundamental relational analogy in the way that both animals and human beings aim at regulating their behaviors with respect to various affordances of their environments. Gibson also thought that our social environments could be conceived of in terms of affordances—and that other people could be viewed as providing the richest affordances of our human environments (Gibson, 1966, 1979; cf. Costall, 1995, 2012; Good, 2007; Heft, 2001, 2007). However, the applicability of the affordance concept to various aspects of the social environment has proved to be a challenging task and subject to some debate (Costall, 1995, 2012; Heft, 1989, 2013; Ramstead et al., 2016; Rietveld & Kiverstein, 2014). Even if social affordances as possibilities for social (trans)actions could be thought of in the light of a simple analogy of how, for example, actions and behaviors of fellow human beings “afford,” or invite, a range of fitting reciprocating behaviors—a question “affords” an answer, a smile invites a reciprocating smile in return—such an analogy does not carry very far in addressing the tricky question of the relations between social, cultural, habitual, and purposive (or broadly “agentic”) aspects of SCAs in specific action situations. Transactionally viewed, the case of SCAs is revealed to be considerably more complicated, because SCAs serve simultaneously (a) as the preexisting cultural basis—and precondition—that grounds all action projects and cannot therefore be ignored or wished away by agents and nevertheless, (b) as flexibly open to various interpretations, uses, reframings, and—sometimes—also modifications or changes in and through social action and agency (cf. Costall, 2015). Shotter (1983) illustrates the point with reference to the affordances and action possibilities provided to us by language:

Thus, paradoxical though it may seem, although my sentences are my own free products of myself alone, if I wish to maintain my autonomous status and to be seen as making sense, I must reproduce a version (albeit a transformed version) of an already established social reality in what I say. Such a reproduction is an *unintended result* of people trying to make themselves understood; their social reality does not directly determine their actions in any way. (p. 37)

In such a peculiar way, not only language but SCAs more generally, ground action and agency. But, importantly, they do not determine them. In order to understand how SCAs function to *both* ground and constrain *and* enable and open up possibilities for action, a transactional approach is particularly instructive. Good (2007), for example, has proposed a transactionally informed approach that makes an analytical distinction between

two interconnected levels regarding SCAs, termed “functional contexts” and “cultural frames of reference.” These analytical notions elucidate how SCAs manifest in, and yet peculiarly transcend, particular action situations. First of all, any particular SCA (such as “a red traffic light”) can be viewed as “nested” in a particular *functional context*, that is, a concrete action situation where an action project is enacted and where the SCAs *in situ* afford certain situationally meaningful action possibilities for the agent(s) and their projects (Good, 2007, pp. 276–278). The red traffic light on an empty street affords stopping and safety for pedestrians within the functional context of their everyday traffic behaviors. However, instances of everyday traffic behaviors are further nested within other functional contexts, such as, rushing to work in the morning rush hour. Suppose the street is empty, with no cars and no police in sight; in such a functional context, the combination of “red light” and absence of certain co-agents (cars, police) together transforms the meaning of the SCA *in situ*; the red light now affords transgressing the stopping rule and crossing the street in order not to run late. The particular meaning of the SCA “red traffic light” thus depends on the situated transactions between SCAs, agents’ action projects, and other agents copresent in the particular functional context.

At another, culturally constitutive level, SCAs can be viewed as grounded in still broader layers of meaning, that is, shared *cultural frames of reference* that define the general horizon of intelligibility of SCAs for culturally competent agents (Good, 2007, pp. 276–278). Indeed, the functional context of traffic behaviors, for example, is further grounded in particular cultural frames of reference, such as, the cultural coding of colors and the color red as signifying danger, the specific sociocultural norms and conventions concerning obedience to societal rules in general and traffic rules in particular. The constitution of this basic level pertaining to the cultural frames of reference has also been studied and theorized (in a broadly transactional spirit) by pragmatist thinkers, especially C. S. Peirce (but also G. H. Mead with regard to the social origin of meanings, signs, and language). According to the pragmatist, and especially Peircean, view, all objects and representations in our human worlds become meaningfully interpreted and communicated (only) in and through an overall sociocultural semiotic process, a kind of dynamically evolving web of interconnected signs and their possible interpretations, termed *semiosis* (Peirce, 1931–1966; see also Heiskala, 2003; Liszka, 1996).³ By applying the idea of semiosis to the transactional conceptualization of SCAs, we can assert that the cultural frames of reference that ground SCAs (e.g., the cultural framing of “traffic lights” with reference to the cultural coding of colors, traffic rules, and traffic-related social conventions) are similarly constructed and stabilized in a process of sociocultural semiosis that underpins the possible meanings and uses of SCAs (e.g., “the red traffic light”) in situated transactions. Hence, transactionally viewed, an investigation on SCAs should also take into account broader concepts, such as cultural frames, that thematize the situationally relevant cultural background understandings and practices where the particular functional contexts and focal SCAs, in turn, are nested (cf. Good, 2007, pp. 276–278).

A transactional, multiply nested conception of SCAs is thus consonant with conceptualizations of SCAs that emphasize the role of sociocultural practices, norms, and shared expectations in the coconstitution and construction of SCAs. Ramstead and colleagues (2016), for example, have used the term *conventional affordances* and Costall

(2012) the term *canonical affordances* to indicate how SCAs provide possibilities for action on the precondition of agents' ability to skillfully make sense of, and manage, explicit and implicit expectations, social norms, and co-operative practices in the socio-cultural environments in which they and their action projects are immersed (see also Constant et al., 2019; Costall, 2015). Accordingly, Ramstead et al. (2016) have proposed that successfully learned human conventions that govern action can be aptly understood as SCAs:

Successfully learned human conventions that govern action are also best conceptualized as affordances. Such affordances depend on shared sets of expectations, reflected in the ability to engage immersively in patterned cultural practices, which reference, depend on, or enact folk ontologies, moralities and epistemologies. (p. 7)

This definition by Ramstead and colleagues highlights an important insight that is essential to the transactional conceptualization of SCAs. As conventions that govern action, SCAs are not merely about simple activation or reanimation of distinctive behavioral habits, social rules, or symbols (as stabilized in the sociocultural process of semiosis), but essentially also about the intentional and socially shared sense-making, co-ordination, and negotiation about situationally specific expectations and action possibilities in relation to SCAs. Conventional and canonical affordances can occasionally also be transgressed or creatively reframed. These aspects concerning multiply nested functional contexts, cultural frames of reference, shared conventions, and expectations vis-à-vis SCAs connect SCAs inherently and directly to agency, as the unfolding of SCAs is relative to, and dependent on, the goal-directed, skillfully steered, collaborative enactment and co-ordination of agency in situated transactions.

A transactional view on agency—a necessary complement to sociocultural affordances?

The observations made above, concerning the active regulation and coconstitution between agents and SCAs, serve as an explicit link to the concept of *agency*, which is commonly understood as the ability of the (human) organism to pursue action projects and get them done by using its actions as means to influence, and exercise control over, the circumstances where it is embedded (Bandura, 1989, 2006; Barandiaran et al., 2009; Emirbayer & Mische, 1998; Giddens, 1979, 1984; Glăveanu, 2015; McGann, 2014). Agency, at least in the form of an underlying assumption of the agent's active regulation of its relation to, or "coupling" with, affordances, has been commonly emphasized as an essential feature of a nonmechanistic concept of affordances (Costall, 2015; McGann, 2014; Reed, 1996; Withagen et al., 2017, 2012). Indeed, a transactional, nonmechanistic view of affordances in general and SCAs in particular is compatible with (and perhaps even calling for) a transactional, nonmechanistic view of agency enactment (as will be elaborated further in following sections). Interestingly, the transactional, multiply nested (Good, 2007) view of SCAs outlined above parallels closely a *transactional, pragmatically informed definition of agency*, proposed by Emirbayer and Mische (1998), as:

a temporally embedded process of social engagement, informed by the past (in its “iterational” or habitual aspect) but also oriented toward the future (as a “projective” capacity to imagine alternative possibilities) and toward the present (as a “practical-evaluative” capacity to contextualize past habits and future projects within the contingencies of the moment). (p. 962)

Transactionally viewed, agency enactment (as the process where the agent pursues action projects by using its actions as means) emerges thus as a temporally and contextually embedded, reiterative and yet regenerative endeavor. Agency enactment is both enabled and constrained, first, by the (performed yet malleable) individual corporeal context comprising the already established action habits and, second, by the sociocultural—and sociomaterial (cf. Van Dijk & Rietveld, 2017)—context comprising the sociocultural affordances and constraints of the particular functional context (where past habits and future projects have to be—more or less creatively—contextualized). Brinkmann portrays this contextual embeddedness and coconstitution between agency and context as essential to Dewey’s transactional psychology, since “perception of affordances happens as part of an organism’s ongoing inquiry (Dewey, 1938), where certain habitual patterns are formed that enable the organism to perceive properties of the world” (Brinkmann, 2011, p. 303). Shotter (1983) further illustrates the Deweyan, transactional insight (and cites Dewey’s classic early text) regarding how our perceptions and “knowledge” of our environment are coconstituted in the transactions between our ongoing actions/agency and our attunement to selected aspects of the environments in which we are embedded:

If we hear a loud, unexpected sound and respond to it by running away in fright, then says Dewey, the running and the fright “enlarges” or “transforms” the original auditory experience, and reconstitutes the sound as a basis for our continued response to it. We act *into* the sound, and, “Just as the ‘response’ is necessary to constitute the stimulus, to determine it as sound and as this kind of sound, of wild beast or robber, so the sound experience must persist as a value in the running, to keep it up, to control it.” (Shotter, 1983, p. 27)

Through their agency, human agents thus articulate, realize, and transform affordances for themselves so that agency enactment comes to afford and constrain further agency. However, at the same time, through their actions, behaviors, and communicative gestures, agents enact, and serve as, affordances for others. The duality of structure–argument (Shotter, 1983) thus aptly describes the transactions between SCAs and agency enactment. Scholars have noted that Gibsonian affordances were originally conceptualized as if viewed from the perspective of a detached observer (Costall, 1995; Heft, 1989, 2003; Shotter, 1983) and dealt mostly with immediately present possibilities for action (Costall, 1995; Noble, 1981; Solymosi, 2013). Transactionally viewed, by contrast, SCAs are tied together with the processes of sociocultural semiosis and agency enactment, whereby they are open to various (more or less feasible) chains of interpretations that carry traces from the past and point towards possible actions and events in the future. SCAs thus present opportunities for action and agency that are deeply *involved in* the unfolding events.

From a transactional perspective the relationship between agency and SCAs is a particularly intriguing one, since *cultural* affordances, as semiotically and “technologically”

mediated possibilities for action, thought, and agency, dramatically expand the possibilities and ways in which the environment and agent can influence, shape, and transform each other, in mutual transactions. A particular possibility for action eventually afforded by an SCA however, is not just simply and unproblematically “out there,” independent of the—often language-mediated—transactions between the agent, other agents, and the range of cultural frames of reference applicable in the particular functional context. Instead, via language and *rhetorical agency* (Billig, 1987, 2009), SCAs are variably subject to social construction, categorization and particularization, dispute, and further elaboration (even if they are not completely malleable). In this sense, language, linguistic agency, communicative co-ordination and co-agency play a crucial role vis-à-vis SCAs. As emphasized by Brinkmann (2011), Good (2007), and Noble (1993), language may variably serve as a tool for exploring the meanings and implications of action possibilities in relation to SCAs and, notably, for actively doing things and for performing and enacting actions and action possibilities.

Taken together, the transactional, multimodal conception of agency, as proposed by Emirbayer and Mische (1998) above, appears a necessary complement to the transactional, multimodal notion of SCAs. Without a transactional conception of agency it would be very difficult to understand how agents, in practice, engage with SCAs to contextualize, manage, and regulate the diversity of past habits and future projects vis-à-vis the contingencies pertaining to SCAs and their unfolding from moment to moment. It might even make sense to view such a relational complementarity between SCAs and agency as forming a dynamic, transactional *SCA–agency nexus*.

Unraveling the transactional dynamics of a sociocultural affordances–agency nexus

This section scrutinizes the reciprocal transactions between SCAs and agency and examines the possibility of viewing them as constituting a *SCA–agency nexus*. The section first elucidates some of the main points of connection between SCAs and agency enactment (both as concepts and phenomena) that motivates such a notion and, second, sketches some important implications that follow from such a cyclical *SCA–agency* relation. The section thus argues that a transactionally informed notion of a *SCA–agency nexus* offers a feasible way to deepen the understanding of both SCAs and agency enactment—and of the reciprocal, cyclical dynamics between them.

The flows of sociocultural affordances–agency nexus across fields of affordances, within forms of life

If we juxtapose the transactional conceptions of SCAs and agency and reflect on the relations and resemblances between the concepts, we are struck by the observation that both SCAs and agency are essentially about *goal-directed* actions that are variously situated in socioculturally constituted and governed environments. Furthermore, both SCAs and agency are also critically about *sociocultural expectations and learning*—about learning to master patterns of habits, skills, and shared practices in culturally appropriate and socially feasible ways, and so that they contribute to bringing forth intended effects and

outcomes (see Constant et al., 2019; Costall, 1995, 2015; Heft, 1989, 2001, 2007; Kiverstein & Rietveld, 2015; McGann, 2014; Ramstead et al., 2016; Rietveld & Kiverstein, 2014; Van Dijk & Rietveld, 2017; Withagen et al., 2017, 2012). Importantly, however, despite being based on culturally patterned practices and conventions, neither SCAs nor agency can be described in terms of mechanical rules or causal interactions but have an open-ended form (cf. Costall, 2015) that becomes situationally specified only in the transactions characteristic of a particular functional context (cf. Good, 2007). Interestingly, scholarly discussions on both SCAs and agency have recently emphasized that there seems to be a broader holistic interplay at stake, where the human environment and agency enactment can be viewed as becoming, in a way, fused.

However, such an apparent fusion between SCAs and agency enactment is characterized by a peculiar tension. On the one hand, scholars working within the enactivist tradition, for example, have emphasized that agency entails an agent who must be capable of adaptively *regulating the coupling* (or coupling strength) between itself and its environment (Barandiaran et al., 2009; De Jaegher & Froese, 2009; McGann, 2014). Viewed thus, it is the agent who assumes the driver's seat in regulating the coupling. On the other hand, however, scholars who have thematized the relationship between affordances and agency from a phenomenological perspective have emphasized that it is the environment (and environmental affordances) that emerge to us as *inviting*, or *soliciting*, actions and skillfully enacted agency (Rietveld & Kiverstein, 2014; Withagen et al., 2017, 2012; cf. Dreyfus, 2014; Dreyfus & Kelly, 2007). Consequently, phenomenologically viewed, it is rather the environment and its affordances that call for, or solicit, a certain way of acting from the agent—and the agent is rather bodily responsive to these solicitations.

Transactionally viewed, however, the tension between the agent versus the environment as *the* driver of the coupling is rather an apparent than a genuine dilemma. The sociocultural environment and its affordances namely become variably ingrained into agents' bodily and mental dispositions, habits, skills, and *habitus* (Bourdieu, 1973/1977), and are then reinvoked under similar environmental affordances and contextual cues. Nonetheless, agents still need to creatively enact agency in order to appropriately *contextualize* the habits in the contingencies of the moment. Again, the transactionally informed definition of agency by Emirbayer and Mische (1998) can be invoked here, since agency as the agent's practical-evaluative capacity to contextualize past habits and future projects within the contingencies of the moment resonates closely with the idea of the regulation of the agent–environment coupling. Moreover, of relevance for both ideas seems to be what Rietveld and Kiverstein (2014; see also Rietveld, 2008) term *situated normativity*, that is, the evaluative criteria arising from concrete action situations and actions of coparticipants that render activities (and the transactions between affordances and agents' bodily action habits) adequate or inadequate.

Nonetheless, the constitution of the evaluative criteria (to be applied when evaluating the adequacy of actions) extends well beyond any concrete action situation. First, the evaluative criteria pertaining to the cultural “rightness” or “oughtness” of action vis-à-vis affordances are subject to sociocultural *semiosis* and, thus, to historical change. Second, these evaluative criteria (in their entirety) are neither explicitly articulated nor learned in the form of rule-like discursive or propositional knowledge, but rather via orientation to commonsensical standard practices, culturally characteristic ways of doing things, and

active participatory sense-making in specific action situations⁴ (see De Jaegher & Di Paolo, 2007; McGann, 2014; Ramstead et al., 2016; Rietveld & Kiverstein, 2014). As emphasized in recent studies, important aspects of SCAs are embodied in, and transmitted via, the socially shared normative practices, skills, and sociomateriality that characterize a cultural way of life (Constant et al., 2019; Ingold, 2011; Ramstead et al., 2016; Rietveld & Kiverstein, 2014; Van Dijk & Rietveld, 2017). Of importance in such holistic, culturally, and agentially constitutive enculturation and enskillment processes is our orientation to, what Rietveld and Kiverstein (2014) following the ideas of Wittgenstein (1953, 1993), call a *form of life*, that is, an animal's relatively stable and regular ways of living and doing things. For humans, the form of life consists largely of our cultural frames of reference, of culturally patterned customs, and normative behaviors characteristic of our particular human communities—and, consequently, of the shared, relatively stable, and expectable ways of living with others (Rietveld & Kiverstein, 2014; cf. Good, 2007; Ramstead et al., 2016; Van Dijk & Rietveld, 2017).

Viewed thus, understanding concerning appropriate actions in a particular functional context—and vis-à-vis SCAs—is shared with other participants in the practices of a form of life⁵ (Rietveld & Kiverstein, 2014, p. 333; see also Ramstead et al., 2016). The very same principle of “groundedness” in shared practices, abilities, and skills characteristic of a form of life applies also to agency. Indeed, as put by McGann (2014), agency can be viewed as emerging in the relational domains of specific action situations, *not* as if the agent's internal representations (of situationally apt and fitting actions) would somehow precede, and then be imposed upon outward behavior but instead, as if flowing “like currents through complex normative fields of value” (McGann, 2014, p. 231). In sociocultural contexts, both affordances and agency enactment are thus inherently tied to processes of *enculturation* and *enskillment* in the shared sociocultural practices and evaluative expectations characteristic of our particular human forms of life (cf. Constant et al., 2019; Costall, 2015; Good, 2007; Heft, 1989; Ingold, 2011; McGann, 2014; Ramstead et al., 2016; Rietveld & Kiverstein, 2014). Agency enactment in relation to SCAs is simultaneously (and puzzlingly) both autonomous and yet constituted in and through the social contexts and SCAs characteristic of a form of life (cf. De Jaegher & Di Paolo, 2007; De Jaegher & Froese, 2009). The notion of the SCA–agency nexus serves thus as a transactional, situated construct that points towards the peculiar cyclical interplay and fusion between SCAs and agency, as the actor-agents navigate landscapes of affordances in the course of their action projects and engross in situationally specific fields of (sociocultural) affordances (cf. Rietveld, 2008; Rietveld & Kiverstein, 2014) that variously converge or diverge with the pursuit of their agentic projects.

Sociocultural affordances–agency nexus and the transformation of environments and selves

Viewed thus, SCAs, agency, and the human forms of life emerge as shaping each other, as if being in a state of flux and becoming. Yet, as Heft (2007) notes, such a perpetual shaping enacted by human agents, which may also be quite directly aimed at the shaping of the affordances themselves, has remained theoretically underappreciated in the theorizing on affordances. Gibson tended to view affordances as relatively stable, as if being

naturally given entities outside, and intact by, the realm of a socioculturally constituted and evolving world (e.g., Gibson, 1979, p. 129; cf. Costall, 1995, 2015; Shotter, 1983). Yet, there are myriad ways in which humans may alter their environments, and themselves (again, for good or ill), so as to better function in them. What, then, are the principal ways and means by which human agents may alter, shape, and realize affordances in general and SCAs in particular? And how is the shaping of agents, and their “selves,” implicated in this? Ramstead et al. (2016), for example, emphasize two alternative ways to alter affordances, both of which are directly relevant for our discussion of SCAs and agency:

There are thus at least two ways to change the affordances available to an organism: (i) by changing the material aspects of its environment (which may vary from small everyday changes in its architecture or configuration to thoroughgoing niche construction) and (ii) by altering its form of life or allowing it to learn new abilities already available in that form of life (interacting in new ways with an existing niche by acquiring new abilities through various forms of learning). (p. 4)

This distinction, too, acknowledges and implies a reciprocity between affordances and agency. The first alternative is about agency that is oriented to bring about change in the external material circumstances and settings where the agents are embedded. It thus serves as a paradigmatic example of agency and change, as it visibly exemplifies how human agents have causative force and can bring about intended and observable changes in their living environments. Human agency that alters/constructs material environments or niches (cf. Heras-Escribano & Pinedo-García, 2018) also tends to render them *socio-cultural* environments, as they are thus shaped to serve as SCAs for particular purposes. Indeed, the increasingly profound impacts of humans upon the entire planet have given reasons for environmental researchers to label the current geological epoch the “Anthropocene,” denoting the significant human impact on Earth’s geology and ecosystems—climate change included (Crutzen, 2006; Heikkurinen, 2017).

However, the second alternative to change affordances, as noted by Ramstead and colleagues (2016) above, is rather about agency that is *reflexive* and oriented towards the practices of the cultured way of life and the premises of agents’ own actions, habits, abilities, and the “self.” Such a reflexive orientation opens up a perspective for the agent to reflect on the underpinnings and premises upon which various routinely enacted SCA-agency chains rest. It opens up space to question and reflect, whether the broader background practices and conventions that govern action vis-à-vis SCAs should and could be altered or reframed (e.g., via individual, collective, or political arrangements), or whether the agent could learn, modify, or reorganize their own habits, skills, or evaluative practices and value commitments.

Important insights in this respect were developed by pragmatist scholars (especially Mead and Dewey), from the perspective of the possibilities of the agents to reflect, assume, and be communicatively influenced or even transformed by, perspectives of other agents and common evaluative ideals that are required to determine the value and (practical) meaning of alternative, and potentially competing, interests and normative commitments in action situations (Dewey, 1929; Mead, 1934, 1964). According to such

transactionally informed views, values and evaluative ideals emerge as byproducts of agents' engagements with one another in *transactions* characterized by ambiguous, competing, or conflicting normative commitments. As elaborated by Emirbayer (1997):

For the pragmatists, normative implications flow naturally out of the central concept of transaction itself: "Values are not simply objective givens, which are independent of human existence. They are, however, also not merely the product of the subjective evaluation of objects which are essentially neutral with regard to this evaluation. Rather . . . the evaluation is the result of an 'interaction' [or transaction] of subject and object" (Joas, 1985, p. 131). Thus, values are by-products of actors' engagement with one another in ambiguous and challenging circumstances, which emerge when individuals experience a discordance between the claims of multiple normative commitments. Problematic situations of this sort become resolved only when actors reconstruct the relational contexts within which they are embedded, and in the process, transform their own values and themselves. (p. 310)

Such an interpretation of the emergence of values in relational sociocultural engagements opens up a view to the constitution and shaping of the self, as well as to the meanings of learning, self-realization, and societal progress via the argumentative and interpretive reconstruction of normatively ambiguous action situations and contexts. From the perspective of a SCA–agency nexus, problematic functional contexts involving ambiguous or competing normative commitments can be resolved through interpretive reconstruction of the context, by switching or changing the cultural–cognitive frames that guide the enactment of agency vis-à-vis SCAs (cf. Good, 2007). This, in turn, may further encourage agents to pursue changes either in their multiply nested functional contexts and SCAs or in their own habits, priorities of normative commitments, and values—or even lead them to open up for the possibility of deeper transformations of values or the self. In this vein, Emirbayer (1997, p. 310), following the ideas of Mead (1934), comments that such a combination of socially perceptive, rational reasoning and practical judgment (termed "intelligence" by pragmatists) enables the agent to take into account a diversity of interests implicated in a situation and, by putting their self in the place of others, to broaden their view to attain ever more comprehensive perspectives on the situation; in short, to engage with others in a way that is also the essence and ideal of a democratic society (see also Joas, 1992/1996, 1997/2000).

Enactment of agency as a precarious and potentially controversial social project

A crucial precondition of both types of possibilities to alter affordances is the basic capacity to enact agency (and co-agency). The agent must be capable of regulating the relationship between itself and its environments, by means of both externally and reflexively oriented acts, even if being itself shaped and structured by the (sociocultural) contexts where it is immersed. In this respect, the points made by McGann (2014) about the criteria for the definition of agency (within a broadly enactivist paradigm) are apt, as the agentic criteria of "goal-directedness," "interactional asymmetry," and "normativity" further elaborate on the cyclical reciprocity between agency and the functional contexts towards which it is attuned:

There is a right-ness, an ought-ness, to action. Agents thwarted will take other routes to their goal but there is always a goal, however implicit. A fully fleshed out account of agency must include an account of goals, goal-directedness and normativity. There is, however, nothing inherent in the concept that demands those goals to be encompassed by the skin of the agent. In fact, given that a cognitive agent's behaviour is continually attuned to its environment, being structured by the details of the world in which it is acting, normativity involves aspects of the world beyond the agent as stipulated by whatever observations we are making. Normativity is not something that resides within individuals, but something that exists in contexts more broadly. (p. 220)

Hence, depending on the functional context, the given field of SCAs may permit more or less room for maneuver—and pose more or less severe constraints—for the goal-directed agency enactment. However, if the constraints and obstacles prove overpowering for the agentic goal at hand, then the agent is likely to either search for ways to alter, or reframe, the problematic functional context and the focal field of SCAs (via externally oriented change agency) or to search for ways to alter their relatedness to the field of SCAs (via reflexively oriented agency), within the limits afforded by the norms and conventions of the functional context. Moreover, however, SCAs may also imply and generate various social and agentic threats. Red traffic lights, for example, afford transgressing the stopping rule, but in certain functional contexts this implies severe risks. Nobody guarantees that an unrestrained pursuit to realize action possibilities in relation to SCAs would necessarily be beneficial—personally or socioculturally.

Herein lies a further, critical distinction. Precisely because SCAs—including other agents—emerge as both possible enablers and *constraints* for agentic projects, agents cannot simply remain fixated on pursuing headlong their agentic goals vis-à-vis situationally available SCAs. Any socially inattentive or tactless pursuit of agentic projects, without regard to various *potentially* constraining or threatening aspects of SCAs, would easily generate trouble (e.g., resistance, opposition, polarization, or conflict). Indeed, enactment of agency in a social world is a delicate and potentially controversial project, simply because of the potentially disputed and argumentative nature of social reality (Billig, 1987, 1991, 2009). SCAs, as human conventions that govern social action (Ramstead et al., 2016), cannot be unambiguously and exhaustively captured in the form of any categorical imperative or discursive rule for conduct. Instead, they are similarly subject to diverse argumentative stand-taking, perspective-dependent particularization, and potential dispute. If agents were not able to keep *simultaneously* an eye on how other social agents and forces might react, and act upon, the action possibilities pursued by them, then their agency enactment would (sooner or later) be disturbed or contradicted by other agents. In this sense, agency enactment in relation to SCAs resembles more closely navigation, where the route towards the agentic goal may take many twists and turns (in relation to available fields of SCAs) before reaching its destination that may, in turn, have somewhat changed in the course of agency enactment.

Interestingly, the potentially vulnerable nature of social action was emphasized and elaborated on also by classical pragmatists. Dewey (1929), for example, described the sociocultural world as “precarious and perilous,” and commented that it is “a scene of risk; it is uncertain, unstable, uncannily unstable” (p. 41). Commenting on such pragmatist views, Kilpinen (2016) writes that

action is a simple affair only in a neutral or benevolent environment, in a precarious environment is a much more complicated project. We must be alert toward two directions, both regarding our own action-possibilities (affordances), as well as regarding possible sinister threats from the outside. (p. 139)

Furthermore, however, both Mead and Dewey emphasized that our human ability to assume the perspective of other agents, as well as supra-individual evaluative viewpoints, and thus to interpretively mediate between diverging perspectives by reconstructing action contexts in terms of ideals and principles at a higher level of abstraction, serves as a mark of socially skillful agency. These ideas are also part and parcel of the pragmatist transactional approach.

Discussion

A transactional perspective, as developed by classical pragmatist thinkers (Dewey & Bentley, 1949, in particular; see also Brinkmann, 2011; Emirbayer, 1997; Noble, 1981), helps to reveal the intimate conceptual connections between SCAs and agency: both are crucially about contextually defined goal-directed doings and about learning to fluently master particular patterns of habits, skills, and sociocultural practices in culturally appropriate and socially feasible ways. Both phenomena thus emerge as counterparts in a dynamic, cyclical SCA–agency nexus. A transactional perspective also illustrates how the concept of SCAs is feasible, insofar as it is inherently linked to a transactional understanding of multiply nested functional contexts, cultural frames of reference (cf. Good, 2007), and human agency. Following the transactional pragmatist insights of Mead, and their articulations by Noble (1981) with a view to the theorizing on affordances, objects can be viewed as always transactionally “realized” in the present, by virtue of the agency enactment of human agents:

Objects are *realized*, they do not pre-exist. Their being taken-for-granted as independent features of the environment in no way counteracts this point. Objects, to turn to a favorite phrase of Mead’s, are “collapsed acts”; their forms and identities are taken teleologically in the course of our actions in relation to them. They do not exist in their own right, but rather become existents in virtue of organismic agency in relation to them. It is the human and anthropoid capacity to handle, manipulate, transform, and objectify, that engenders objects out of surfaces in the environment. (p. 79)

Viewed from a pragmatistically informed transactional perspective, the sociocultural objects also become existents in the course of agency enactment and are realized in and through the transactions of a SCA–agency nexus. Transactionally viewed, the knower and the known are inseparable counterparts of an overall transaction process; there is no access to objects *an sich* outside the process of sociocultural transactions and overall *semiosis*, but the transaction process itself, however, is of an expanding nature and there is always a possibility to learn and uncover more aspects of the objects of inquiry (Dewey & Bentley, 1949; see also Brinkmann, 2011; Emirbayer, 1997; Kilpinen, 2016). The known objects become, by definition, sociocultural objects, since in and through the acts of knowing they become interrelated to, and interpreted vis-à-vis, the overall sociocultural *semiosis*.

The transactional perspective also helps to make sense of some apparent tensions between enactivist (Barandiaran et al., 2009; McGann, 2014; Ramstead et al., 2016) and phenomenological (Rietveld & Kiverstein, 2014; Withagen et al., 2017, 2012; cf. Dreyfus, 2014) accounts of the relationship between SCAs and agency. On the one hand, the enactivist account of the coupling between agent and environmental affordances assumes that the agent “as a whole drives itself, breaking the symmetry of its coupling with the environment so as to modulate it from within” (Barandiaran et al., 2009, p. 370) and that the asymmetrical relationship also means that the agent, through their agency, must be able to regulate the coupling with regard to environmental affordances (Barandiaran et al., 2009; McGann, 2014). On the other hand, phenomenological accounts conversely emphasize that the environment and its SCAs are generally in the driving seat and that “in responding to the invitations of the environment we might not be the source of our actions; rather we are ‘giving in’ to the environment’s demands” (Withagen et al., 2017, p. 16). Moreover, phenomenological accounts propose that such a skillful performing “in ways that are adequately attuned to the demands of a concrete situation becomes second nature to the agent” (Rietveld & Kiverstein, 2014, p. 341).

The pragmatist, transactionally informed perspective, then, offers a mediating view to such an apparent tension, notably, by evoking conceptions of, first, habits and habitual action (e.g., Brinkmann, 2011; Kilpinen, 2009; Shilling, 2008; cf. Bourdieu, 1973/1977) and, second, creative, intelligently reconstructive action and agency (e.g., Joas, 1992/1996; Shilling, 2008) that is compatible with, and a necessary corrective to, the habitual basis of action. Pragmatist conceptualization of “habit” namely understands habits as tying human agents inherently together with the outside world, since, interestingly, it is with habits that agents may know something about their external environments; moreover, the pragmatists argue that “we can do voluntarily only what we have learned to do habitually” (Kilpinen, 2016, p. 134; see also Dewey, 1922/1957; Kilpinen, 2009). Importantly, however, even if our action and knowledge are grounded in habits, they are nevertheless open to our critical reflection and intelligent regulation—even reconstruction—during the course of action (Joas, 1992/1996; Kilpinen, 2009; Shilling, 2008). From the perspective of affordances, then, affordances and SCAs emerge as transacting with agents and their habitual action-readiness and thereby soliciting them. Still, crucial for the success of the overall transaction process is the intelligently creative nature of action and agency that, as the practical–evaluative capacity, enables agents to contextualize and also reconstruct past habits and future projects within the contingencies of the moment (Emirbayer & Mische, 1998; Joas, 1992/1996). The transactional view thus has an account of the cyclical interplay, and compatibility, of both SCAs as soliciting responses from agents and of agency as regulating the habitual action-readiness vis-à-vis fields of SCAs.

A transactional view also provides an account of how human agents variously aim at (and variably also succeed in) pursuing their action projects and agentic goals by (a) altering their relatedness to and (b) working upon, the various types of affordances of their action contexts (which may thus assume the status of SCAs). Thereby the role of agency also becomes understandable as a necessary corrective to the vulnerabilities of action that stem from its social and situated embeddedness and habitual groundedness in a precarious world that may not always respond to agentic projects unanimously,


co-operatively or benevolently. The transactional view helps to account for how agency plays a critical role in shaping, and even transforming, both human environments and selves, so that—despite the precarious human condition—the pursuit of both individual and societal improvement and progress emerge as meaningful and feasible (even if not easy) tasks.

Finally, the transactional perspective also suggests answers to questions concerning the relationality versus relativism of SCAs. Concerning the question of whether affordances in general are relational (cf. Katz, 1987), the transactional perspective suggests an emphatically affirmative answer. However, concerning the further point, whether a sociocultural affordance concept implies a threat of relativism (cf. Costall & Still, 1989; Hodges & Baron, 1992), the transactional view with its emphasis on processes of contextual coconstitution rather moderates, and wards off, such threats: it portrays SCAs as grounded in a sociocultural form of life and, yet, as flexibly open-ended vis-à-vis agency enactment (cf. Costall, 2015). The transactional view thus denies that agents would be free to construct SCAs as they please; or that all constructions would be equally valid. Instead, the transactional perspective suggests that SCAs become contextually specified via agency enactment that is attuned to, and constrained by, multiply nested functional contexts and cultural frames of reference.

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Notes

1. Chemero (2003) explicitly formulates one version of a relational understanding of affordances as a solution to the persistent disagreements and debates that have haunted the affordance concept: “I argue that affordances are not properties of the environment; indeed, they are not even properties. Affordances, I argue, are relations between particular aspects of animals and particular aspects of situations” (p. 184).
2. Herein a distinction can be made between the pragmatist ideas of Dewey and the “radical empiricism” of William James that influenced Gibson’s thought, not least by way of E. B. Holt who was Gibson’s teacher and James’s student (see Heft, 2001). Despite their resemblances, James’s radical empiricism differs from the Deweyan transactional view; for example, Dewey consistently emphasized the primacy of ongoing action and conduct in organism–environment transactions and did not share James’s idea of “pure experience” (see Burke, 1994; Heft, 2001).
3. Heiskala (2014) summarizes the Peircean idea of semiosis:

Peirce very often worked with a conception of semiosis in which the object of the sign was not a referent external to semiosis but a representation within it. Thus he could make claims such as “the object of representation can be nothing but a representation” (1931–1966, 1: 339). . . . In other words, [the object of the sign] is a construction that stabilizes in the process of culture. Peirce’s semiotic objects were thus not always

material entities such as objects of natural scientific arguments. For him semiosis was the way culture happens, and in this broader field of semiotic study, his understanding of the object came close to the way [Ferdinand de] Saussure understood the signified. . . . This is how he presented a conception which is constructionist and materialistic at the same time: our interpretations of natural phenomena are our constructions, but we are not free to formulate these constructions as we please because the objects are not completely malleable in relation to our interpretations of them. (pp. 42–43)

4. Thus, approaching SCAs as embedded and embodied in the practices and sociomateriality (Van Dijk & Rietveld, 2017) of specific (trans)action contexts would bear some resemblance to principles applied in ethnomethodological studies (see, e.g., Heritage, 1984).
5. There is, thus, a certain cultural coherence to SCAs within a sociocultural form of life (cf. Kitayama et al., 2006).

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